KYRGYZSTAN

Review of the Investment Climate and Market Structure in the Energy Sector

2007

Energy Charter Secretariat
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Policy Conclusions to the In-depth report on the Investment Climate and Market Structure in the Kyrgyz Republic

The Charter Conference,

Having regard to the Report from the Investment Group with respect to the In-depth Review on Investment Climate and Market Structure of the Kyrgyz Republic

NOTED

a) That the Kyrgyz Republic Kyrgyzstan acceded to the World Trade Organisation (WTO) on 20 December 1998 and has been pursuing market-based reforms, privatisation of state-owned enterprises and promotion of foreign direct investment (FDI) to support economic development;

b) That the government has taken steps to improve the legal, regulatory and institutional frameworks for investment in the country;

c) That the government has adopted a freely convertible currency regime and there are no foreign exchange controls;

d) That foreign investors are entitled to the same treatment as local investors, and even though ownership of land by foreign investors is restricted, land can be leased on a long term basis;

e) That the terms and conditions of international treaties prevail in cases where they establish rules that are different from those of the laws of Kyrgyzstan;

In particular:

- Welcomed the steps taken by the Kyrgyz Republic for providing an establishment procedure regarding regulations on taxation, export and import control, currency and other issues that are essentially identical for businesses with and without foreign participation, but notes that laws are yet often poorly implemented in a judicial system that has not so far incorporated many protections of western jurisprudence, and still retains many features of the Soviet system, whereby investors cite the difficulties they face with the effectiveness of the legal system as a major constraint;

- Welcomes the effort to gradually strengthen the use and the scope of market-based approaches in the energy sector, thus boosting investor confidence, but notes that the reform process has in general to this day been somewhat partial and remains incomplete, with relative prices of non-tradable goods (particularly utilities) suppressed, hampering the gradual transformation of these sectors into profitable entities which generate savings and attract investments, distorting market signals and resulting in resource misallocation, hampering efficiency and diversification of the economy;

- Took note that the energy sector is directly regulated by the government, including by price (tariff) regulation, putting companies on lists restricting privatisation and (de-facto) competition including existing electricity generation plants and high-voltage grids, and cross-subsidising of many energy products still exists, and
appreciates the recent effort of the Kyrgyz Republic to start reducing the extent of this direct government regulation by offering, albeit to a limited extent, opportunities in electricity generation to private investors and adopting a program for gradual phase-out of cross-subsidising;

- Welcomed the establishment and the constructive participation of the Kyrgyz Republic in greater regional cooperation in the energy sector that has a good potential to boost the production of renewable energy sources (hydroelectricity);

- Appreciated that, to alleviate obstacles in attracting FDI into the country, the government has established an Investment Promotion Centre (IPC) as a one-stop shop to assist foreign investors in investing in the country, and a Consultative Council on Foreign Investment chaired by the President and comprising business representatives, as a platform for investors and the government to exchange views and discuss policy implementation and related measures in improving the investment climate of the country;

- Appreciated the effort of the Government to build up an institutional framework in all areas of governance, but notes that despite the ongoing reform results so far have not been very satisfactory and red tape, corruption and inefficiencies in the public management circles are still prominent;

- Took note of the potential role of Kyrgyzstan as one of the mainstays in bridging electricity supply and demand in the region and the wider area, and in this respect acknowledged the role of the country as supplying partner to other countries, by referring to the hydroelectricity generation projects already in service and the ones that are currently being developed, noting the importance of greater transparency and non-discrimination in electricity sector projects, but also in the oil and gas industry of the country, where concerns about granted exclusivity may deter future investors;

- Acknowledged that the Kyrgyz Republic is still developing solutions to the difficult task of striking a balance between liberalisation, competition and supply security in the energy sector, and is looking at an acceptable supply-demand balance of energy, including by intensifying regional cooperation, and invited the Kyrgyz Republic to consider more actively the benefits of national, regional and international competitive energy markets, as drivers for new investments while trying not to undermine supply security;

- Noted that there are good short term prospects for better use of coal reserves that could help improve energy security, but safety, technical standards, and environmental concerns continue to be largely uncontrolled, and the issue of finding a balance between private sector involvement and reliance on the public sector activity in the coal industry needs to be addressed;

- Noted that demand-side measures regarding energy savings and efficiency should strongly be addressed in the energy policies, and welcomed the recent efforts in this context;

- Appreciated the intent and the effort of the Government to manage the passage of the country through a long and difficult transition period, struggling to establish a stable and fully functioning democratic regime on market principles, and notes that there are recent encouraging developments towards achieving better governance and stability in the country, which would further encourage investor confidence, but notes the obvious need for expediting the process of implementing the reform programs and encourages the Government to take more decisive actions.
MAIN FINDINGS OF THE SECRETARIAT

Investment Climate

Since its independence in 1991 Kyrgyzstan has emerged as a democratic and liberal, reform oriented country, providing a comprehensive reform program towards establishing market principles and institutional framework for democracy. The country has undertaken the important transition toward a democratic political system and a market economy. Significant achievements to date include maintaining a relatively low and stable rate of inflation, successfully completing a mass privatisation program and establishing a stable currency that is freely convertible with no controls on capital flows.

The 1993 constitution defines the form of government as a democratic and secular republic. The country has a parliamentary regime with a president having certain powers, and the power balance between the two has been swinging back and forth through changes in the Constitution since the establishment of the republic. The recent Constitutional Court decision\(^1\) of September 2007 annulling last year’s Constitutional amendments may further boost the concerns on political and constitutional stability in the country.

Although the Constitution provides for an independent judiciary, Kyrgyzstan’s court system is widely seen as under the influence of the prosecutor’s office. Low salaries are believed to be leading to widespread bribery in judiciary circles. As such, investors cite the difficulties they face with the effectiveness of the legal system as a major constraint.\(^2\)

The economy is fairly stable in the recent years due to reforms. Inflation has been under control in the last couple of years despite political turmoil. Nevertheless, due to recent price hikes in basic food and increased export demand for agricultural products and construction materials, prices have shown an unexpectedly high upward movement in the recent months, leading to a revised yearly inflation figure of 9% from the original 5-6%. This has caused the authorities to decide for a tougher monetary and credit policy to be applied in the coming months which is also backed by the IMF.\(^3\) Concerns are that these may be taken as a further indicator for a somewhat more fragile climate in the country in the near future.

The Republic’s economy grew at an annual rate of 4.7% during 1996-2005. In early July 2007, the National Statistics Committee (NSC) announced that the Kyrgyz national economy grew 9.2% in the first half of this year compared to the same period last year. Growth is expected to be 7% in 2008.

The Republic is seeking to achieve economic stabilisation and long-term consistent growth, yet the reform process has in general been partial, and remains incomplete. Unlike some other CIS countries, market signals continue to be distorted in the Kyrgyz

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Republic and resources are therefore only partially re-allocated to sectors with the highest potential returns. The Republic’s close proximity to three fast growing countries (China, Russia and Kazakhstan) provides an opportunity for further expansion of exports. Production in the country is mostly concentrated in non-manufacturing groups like primary agricultural goods, electric power and gold. The country is rich in mineral resources but has negligible petroleum and natural gas reserves, and thus imports petroleum and gas.

FDI promotion has been a priority of the government to support economic development. The government has taken steps to improve the legal, regulatory and institutional frameworks for investment in the country. The government has also adopted a freely convertible currency regime with no controls on foreign exchange. Most importantly, from a legal point of view, foreign investors are entitled to the same treatment as local investors, even though this may be questionable as regards the practice. Ownership of land by foreign investors is restricted; however, land can be leased for a long time. Expropriation against foreign investors is only possible in the general public interest, and compensation must be provided to the amount of fair market value of the expropriated investment, realisable and paid in freely convertible currency.

Kyrgyzstan has established several free economic zones in 1992 in accordance with relevant regulation. Nevertheless, figures relating to FDI flows are yet neither significant nor promising.

Similar to the practice in some countries over the recent years, the country introduced a ‘one-window shop’ to simplify the procedures for FDI. A new institutional body named ‘The Investment Council’ was established in February 2007 under the President of the Republic and this is taken as a strong signal for the intention to realise the missions targeted, with Presidential support. The council consists not only of government officers but also of representatives of the business community and the international donor organisations. Although recently created, several recommendations and documents have been elaborated and adopted by the Council which set the basis for further reforms to improve the investment climate. One recent example relates to the introduction of electronic visa regime to ease the visa burden for foreigners.

The country is striving to build up an institutional framework in all areas of governance, but despite the ongoing reform process since independence more than a decade ago, the results have not been very satisfactory, which is manifested by the various international indexes regarding the perceived image of the country. For example, according to the World Economic Forum’s index of 2007, the country ranks 118 among 124 countries in terms of rules governing FDI, and also ranks 111 regarding foreign ownership restrictions. According to the World Bank’s index, Kyrgyzstan ranks 90 out of 175 countries in 2006 regarding the ease of doing business, which is an improvement of 14 points compared to the previous year.

Special emphasis should be given to substandard institutional efficiency, since securing a trustworthy and business friendly environment still needs to be addressed. The government is tackling these issues, yet much remains to be done, especially in the judiciary and police services. The problem of corruption and bribery still persists and despite efforts of the government, according to international indexes, even worsened
from 2002 to 2005. Business circles perceive that tax administration, macroeconomic and regulatory uncertainties constitute the most worrying concerns.

Regarding FDI activities in the form of concessions, a concession agreement can be concluded for a term of five to fifty years and is subject to provisions of the Kyrgyz laws. Should an international treaty establish rules other than those contained in the legislation of the Kyrgyz Republic, however, the provisions of the international treaty shall apply.

The state legally ensures freedom of competition between entrepreneurs, protects consumers from manifestations of unfair competition and monopoly behaviour in all areas of economic activities.

Public control over the development of competition and the restriction of monopolistic activities is carried out by the state antitrust authority – the National Commission of the Kyrgyz Republic on Protection and Development of Competition – established by Decree No. 290 of the President of the Kyrgyz Republic of 1 October 1998. The Commission performs its functions under the direct authority of the President of the Kyrgyz Republic.

The National Agency of the Kyrgyz Republic for Anti-Monopoly Policy and Development of Competition (the ‘National Agency’, or ‘NAAPDC’) is the state’s anti-monopoly body that implements the uniform state policy in the field of protection and development of the competition, state regulation and control of activities of subjects of natural and allowed monopolies related to prevention, restriction and restraint of monopolistic activity and unfair competition. NAAPDC regulates the fuel and energy complex.

The National Agency’s major duties in relation to the energy activities include, among other:

- Approval of prices and tariffs for electricity, heat, natural gas;
- Issuance of licenses for generation, transmission, distribution and sale of electricity, heat and natural gas, processing of oil and natural gas, construction of power plants, substations and power transmission lines, export of electricity; and,
- Exercise of state control over compliance with anti-monopoly legislation, legislation in the field of the fuel and energy complex.

**Market Structure**

Kyrgyzstan is endowed with considerable primary energy resources, particularly hydropower and coal, but also some petroleum and natural gas. It has fair potential in renewable energy sources such as solar, wind, geothermal and biomass.

The country is a net exporter of electricity (some 93% of which is generated at hydropower plants), but is dependent on imports for all kinds of fossil fuel, since indigenous production of oil and natural gas is marginal and coal production – which declined steeply during the 90s – is only recovering at a slow pace. The basis of the primary energy balance of Kyrgyzstan is thus formed by domestic hydropower and
imported gas and petroleum, with domestically mined and imported coal also contributing significantly. Imports constitute about 55% of primary energy supply.

The oil, gas, coal and electricity sectors of the Kyrgyz fuel and energy complex (FEC) are under the direct supervision of the government, in particular the Ministry of Energy, Industry and Fuel Resources (MEIFR), established in early 2007 by reorganising the then-existing State Agency for Energy. Additionally, there is a Department of Fuel and Energy at the Office of the Prime Minister. Development of legislation specific to the energy sector is in the domain of the Committee on Issues of Fuel and Energy at the parliament.

Most of the sub-sectors of the energy business are still dominated by government-controlled companies, but private investment is significant in some cases, such as petroleum exploration and production, refining and distribution, and coal mining and distribution.

Subsidised energy, low efficiency of the use of energy, problems with emissions control and reduction, high import dependency (particularly in gas and oil), difficulties in dealing with “losses” in the gas and power systems, metering, accounting and payments for deliveries of gas and electricity, extensive use of subsidised electricity for space and hot water heating are some of the major problems faced in the country.

Difficulties in balancing water use for power generation and irrigation and difficulties in structuring and securing funding for the construction of hydropower plants are other serious obstacles which the country needs to handle.

Oil and gas: Kyrgyzstan contains five oil and gas bearing basins with allegedly considerable resources that are currently mostly unproved. The proved resource base of the country is modest, but since demand for oil and gas is also moderate, Kyrgyzstan could eventually become self-sufficient in oil and gas, if exploration is stepped out and the relevant oil field investment is made. The republic does not possess the required financial and technical resources, and for this reason hopes to expand its hydrocarbons base and increase production in partnership with foreign investors. Exploration and production licenses for hydrocarbons (and coal as well) are issued by the State Agency for Geology and Mineral Resources.

Following the break-up of the soviet system, the country had to find a substitute for the previously available hydrocarbon resources from the other soviet republics. Therefore, Kyrgyzstan is naturally interested in increasing its domestic output of oil and gas. The state-owned joint-stock company Kyrgyzneftegaz (Kyrgyz Oil and Gas, KNG) was set up in 1999 and is now producing from seven oil fields and two oil and gas fields. Several private foreign companies are exploring new acreage or redeveloping existing fields in partnership with KNG. In 2006, KNG’s stock was owned by the government (85.16% of shares), various individual shareholders and legal entities (9.8%) and the employees (5%). KNG was officially entered in the privatisation program, with the government’s intent being to divest of some stock but keep a controlling 51% stake in the company.

In addition to the KNG, there are other private companies in the hydrocarbons extraction business, mainly in joint-venture structures with participation of KNG. As of 2006, in the country there were 510 wells (472 oil and 38 gas). Of the oil wells, 325
were producing and 143 idle; of the gas wells there were 11 producing and 27 inoperative. Production is marginal (about 70,000 tons of oil and 30 million cubic meters of gas per year).

The only refinery in the country belongs to the Kyrgyz Petroleum Company (KPC), which is a joint venture of Petrofac International (part of Petrofac Group) and KNG. The facility is located at Dzhalal-Abad in the southern part of the Republic. The refinery is exempt from tax, but still reports a loss, primarily due to low load factor. Local production is not sufficient for the capacity of the plant, nevertheless, crude oil is not imported into Kyrgyzstan although the refinery could process certain grades of Uzbek or Kazakh crude. About 85% of the petroleum products consumed in Kyrgyzstan originate abroad.

At the oil and gas fields in the Fergana Valley, there is a crude oil gathering and transportation pipeline system constructed mostly during the 60s, which was designed to supply oil from the fields to refineries in Uzbekistan. At the moment, it is partially rehabilitated and only used as a gathering system in the fields. There are no product pipelines in Kyrgyzstan.

Natural Gas: Kyrgyzstan produces minor amounts of natural gas (about 30 million cubic meters per year) from its modest proved resource base. Demand, on the other hand, is running at around 700 million cubic meters per year (gas is supplying about 30% of the primary energy of the country). The difference is imported, mostly from Uzbekistan. Gas imports weigh heavily on the country’s trade balance, wherein fuel and energy resources constitute more than 50% of imports. The government-owned JSC Kyrgyzgaz is currently responsible for most gas imports, the operation of all pipelines, and supplying most customers.

Additional supply of gas is secured from Uzbekistan as in-kind payment for the services of Kyrgyzgaz in transiting Uzbek gas to Kazakhstan. Kyrgyzgaz also serves some small parts of Uzbekistan territory in the Fergana Valley, where the border is relatively complex, with several enclaves. Furthermore, before reaching Kyrgyzstan, the gas pipeline from Uzbekistan crosses Kazakhstan territory, and this is even more complicating the flow of gas and transactions.

Overall, Kyrgyzgaz pays for about half of the gas delivered from Uzbekistan in cash and about half with Kyrgyz goods, including water supplies. The complexity of the barter deals and the various transportation and transit arrangements underscore the necessity for transition to transparent, market-based cash transactions.

The company operates about 2,800 km of high, mid and low pressure pipelines, as well as some 900 gas distribution stations. Third party access to the pipeline system is available and large customers and gas traders can use the services of Kyrgyzgaz to transmit and distribute gas to end-users.

Prices for gas sold by Kyrgyzgaz are set by the Antimonopoly Committee on the proposal of the government. Prices are higher for industrial consumers, signaling a large degree of cross-subsidising. Kyrgyzgaz supplies gas to industry, boiler rooms in Bishkek used for district heating and hot water supply, and the residential and commercial sector.
A major problem for Kyrgyzgaz is the poor metering, accounting and collection, which has resulted in the accumulation of arrears by industrial and residential and commercial customers. Financial difficulties caused the inability to invest in new projects and even to keep the system operational and reliable.

In order to secure the reliability of gas supplies and ensure diversity of supply sources, current plans include cooperation with Gasprom and eventually benefiting from the projected Turkmenistan-China gas pipeline as Kyrgyzstan is one of the possible transit countries along the yet-to-be selected route.

Coal: Considerable coal resources exist in the country. Known, probable and possible coal resources are estimated at 6.73 billion tons of hard and bituminous coal and lignite. With recoverable coal resources estimated at 1.3 billion tons, Kyrgyzstan ranks fourth in the former Soviet Union after Russia, Kazakhstan, and Ukraine.

The largest consumer of coal in the country is the thermal power plant in Bishkek. The plant imports its coal from Kazakhstan.

Most of the coal mines have been either privatised or the operating companies have been put up for managementmployee buy-out. The state-owned Kyrgyzkomur has turned primarily into a service company, with major mining operations structured as separate enterprises, although nominally still reporting to Kyrgyzkomur, which continues to make loss and receive subsidies to stay in business.

At present, private companies are engaged in coal production at a number of small mines located throughout Kyrgyzstan. Media reports indicate poor engineering and safety practices at many of the small private mines, which occasionally use child labour.

Electricity: Kyrgyzstan has large hydropower potential. With independence, priority was given to the country’s own needs for electricity and plants began operating mostly in winter, when electricity demand is high; water has to be stored for summer. This caused extra discharge and claims by some neighbouring countries about flooding downstream. Bi-party and tri-party agreements were signed for a framework of cooperation in the use of the hydro resources, yet the agreements often left many issues open and implementation is poor. System overloading occurs during the winter because a large part of the population uses electricity for space heating due to lack of district heating network outside Bishkek and Osh and subsidised electricity prices.

Overall, the main issues deterring investors from participation in Kyrgyzstan’s electricity sector are the difficult access to large markets (located outside Kyrgyzstan) and problems with the regulatory and legal base.

The owner and operator of the generation plants is the state-owned JSC “Electrichekie Stancii” (Electric Power Stations, EPS). In the future, EPS plans to continue prioritising energy over irrigation in the use of the hydro resources of the country.

The country’s power grid is connected to the grid of other Central Asian republics by the Central Asian Integrated System, controlled by the Tashkent dispatching centre. The high voltage network of the country is owned and operated by the government-controlled National Power Grids Co. (NPG). NPG also manages inter-system high voltage transmission lines with neighbouring countries, dispatches the
national electric network and assures the reliable operation and the safety of power facilities in compliance to standards and rules.

There are four electricity distribution companies set up on a regional basis which own and manage the local distribution lines (0.4-35 kV) of 65,000 km, and serve more than 1 million households and other consumers. Distribution companies are obliged to provide uninterrupted electric power to all consumers in their respective regions, except in areas served by generating companies, if there is a contract for direct supply. The distribution companies are also obliged to buy electricity from generators, except where they themselves generate electricity. The distribution companies can import and export electricity via networks rated at 35 kV or less. Distribution companies provide collection services for consumers of electricity, which requires significant financial assets and modernisation of metering and accounting. There is still a considerable amount of loss and non-payment persists, which poses serious financial problems for the industry. The transmission and distribution system has serious problems attributable to natural disasters and overloading. Due to its age and inadequate maintenance, reliability is poor.

Privatisation and restructuring in the power sector – While privatisation in the electricity sector is still to go ahead in earnest, in 2007 two important laws were enacted which will hopefully help expedite the process. In June 2007 the parliament adopted amendments to the third phase of the plan for the break-up and privatisation of Kyrgyzenergo (as reorganised in 2001) and introduced a fourth phase to the reorganisation plan. Upon privatisation, investors will operate under a license and tariffs will be set by the government.

Earlier in June 2007, the parliament adopted a separate law about the finalisation of the construction of the Kambaraty 1 and 2 power plants and assigned a special status to these two projects allowing participation of private domestic and foreign investors. Interest in the completion of the Kambaraty power cascade has already been expressed by Russian and Kazakh companies.

As the hydro resources of the country are seen as a policy tool in terms of its international relations, expectations are that privatisation will mostly focus on the distribution rather than on the production side, with certain exceptions like the Kambaraty 1&2 plants. Restructuring of the distribution side may help increase energy efficiency by rationalising energy use and establishing a better market structure to provide better signals for the energy investments.

Trading – In early 2007, for the first time since electricity exports from Kyrgyzstan started, the government decided to abandon the barter deals with neighbouring countries for exchange of water and electricity from Kyrgyzstan for gas and coal from Uzbekistan and Kazakhstan. Instead, the government started holding tender rounds, with the first one held on 21 March 2007 at a starting price of 1.5 US cents per kWh. Kyrgyzstan’s long-term hopes are linked to the Central Asia/South Asia Electricity Trade Project (CAS), wherein Tajikistan and Kyrgyzstan will provide hydropower and coal resources and Pakistan and Afghanistan are potential import markets, particularly for the cheaper hydroelectricity.
Overall, Kyrgyzstan has for a long time been going through a transition period and struggling to establish a stable and fully functioning democratic regime on market principles. There are encouraging recent developments and the officials have optimistic expectations for achieving better governance and stability in the country which would further encourage investor confidence. The energy sector would be benefiting perhaps the most once the implementation would start transmitting the right signals to potential investors. On the other hand, it is evident that this may take time and there is an obvious need for expediting the process of implementing the reform programs. Institutional culture also needs to be given priority and supported with further reforms in the utmost decisive manner, while special emphasis is crucially required for the judiciary and the security services.
I. EXECUTIVE SUMMARY

Investment Climate

Kyrgyzstan is a secular and democratic republic located in Central Asia, neighbouring rapidly developing big economies like Russia, China and Kazakhstan. Following its independence in 1991, the country has undertaken an important transition towards a democratic political system and market economy. Significant achievements to date include maintaining a relatively low rate of inflation, successfully completing a mass privatisation program and establishing a stable currency that is freely convertible with no controls on capital flows.

The country has a parliamentary regime instituted under the Constitution, with the Jogorku Kenesh (parliament) and the president sharing the power. Preparatory work for a constitutional reform aiming at re-arranging the power balance between these two branches of the government is currently in progress and expected for adoption in 2007. Issues of reforming administrative and territorial units are also being studied, in order to cut the number of civil servants, management structures and budget management.

The legal system of the country retains many characteristics of the Soviet system and many salient features of western jurisprudence have not yet been incorporated into Kyrgyzstan’s system of law. The problems encountered in the legal environment still persist and investors cite difficulties faced, with the effectiveness of the legal system as a major obstacle to business.

The Republic is seeking to stabilise the economy and achieve long-term consistent growth. As for macro-economic developments, the Republic’s economy grew at an annual rate of 4.7% during 1996-2005, and 9.2% in the first half of 2007. Debt burden is high, reaching nominally over 70% of GDP in 2006. The government has succeeded in controlling inflation in the late 1990s and early 2000s; the inflation rate was 3.2% in 2004, 5.2% in 2005, and 5.6% in 2006.

Electricity is the most significant energy sub-sector, contributing 5% to the GDP in 2006. It also plays an important role for the economic development of the country as a basic provider of energy to industry and households and by securing hard currency from electricity exports.

The reform process in the Republic has in general been partial, and remains incomplete. Relative prices in non-tradable goods, particularly utilities, remain suppressed, hampering the gradual transformation of these sectors into profitable entities which generate savings and attract investments. Market signals continue to be distorted and resources are therefore only partially re-allocated to sectors with the highest potential returns, further hampering diversification of the economy.

The Republic’s close proximity to three fast growing countries (China, Russia and Kazakhstan) has provided an opportunity for the expansion of exports. Even after a decade and a half of transition, production in the Republic is mostly concentrated in non-manufacturing groups: primary agricultural goods, electric power and gold. Due to the above constraints, the Kyrgyz export structure has not adapted well to the shifting
demand in these markets for increasingly sophisticated and high quality food products and manufactured goods.

One of the main directions of the economic policy pursued by the Government is the attraction of direct foreign investments. The government puts great emphasis on FDI and also on integration with the global economy; the Republic has been a member of the WTO since 1998. A special law on FDI encourages foreign investors through providing privileges and protection. In 2001, the government established the Investment Promotion Centre (IPC) under the State Committee of the Kyrgyz Republic on State Property and Direct Investments, acting as a one-stop shop to assist foreign investors. Another agency, The Consultative Council on Foreign Investment, was established in 2001, chaired by the President. The Council provides a platform for investors and the government to exchange views and discuss policy implementation and related measures in improving the investment climate of the country. Establishment of free economic zones is also a contributing factor in attracting FDI, as the country offers certain advantages to companies operating under this framework.

Despite these developments and the ongoing reform process, however, figures relating to FDI flows are neither significant nor promising. This may be noticed in a number of indexes published by various organisations. Kyrgyzstan ranks 118 among 124 countries in terms of rules governing FDI, and also ranks 111 regarding foreign ownership restriction, while ranking 90 out of 175 countries in 2006 regarding ease of doing business.

Safeguards against expropriation of foreign investments are provided by law, according to which foreign investments are not subject to expropriation except in instances when this is realised in the supreme public interest, on a non-discriminatory basis, with the observance of legal procedures under due process of law, and is accompanied by the payment in freely convertible currency of prompt, adequate and effective compensation, which must amount to the fair market value of the expropriated investment. Foreign investors may also seek remedies through international arbitration following enforcement of the relevant international Conventions.

Regarding institutional efficiency, there is yet a long way to go towards achieving a trustworthy and business friendly environment. The government is tackling these issues, yet much remains to be done. The problem of corruption and bribery still persists despite efforts by the government. Another major problem for investors is the lack of skilful workers due to migration abroad of experienced labour force. Furthermore, according to a recent survey, business circles perceive that tax administration, macroeconomic and regulatory certainty are the most worrying concerns.

The country’s foreign trade volume has been on an increasing track in late 1990s, but came to halt and reversed to lower figures until the recent years, when the trade volume peaked up again to attain levels similar to those of almost ten years ago. The trade deficit more than doubled year on year in January-October 2006 to US $ 812 million, up from US $ 393 million in the same period of 2005. In part, this was attributable to a 41% increase in trade turnover, but the rise in prices of energy imports was the main reason for the widening deficit: import costs were more than twice as high as export receipts. Manufactured goods constitute the bulk of exports with 21.6%, while energy and fuels rank second with 11.6%. These items are also the main ones in import
figures, manufactured goods with 57.2% and energy and fuels with 25.3%, thereby constituting almost 80% of imports to the country.

The country is a party to certain free trade and customs agreements, mainly with the CIS countries, and also signed in 2004 a Trade and Investment Framework Agreement with the US, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan, which provides a forum for addressing regional trade issues that hamper intra-regional trade and economic development and create impediments for investors, and enhancing trade and investment between the United States and Central Asia. A Council established under the Agreement deals with issues like intellectual property, labour and environmental issues, while enhancing participation of small and medium-sized enterprises in trade and investment.

**Energy Market Structure**

Since March 2007, the electricity sector and most of the other branches of the energy sector have been regulated by the new Ministry of Industry, Energy and Fuel Resources (the “Industry and Energy Ministry”) of the Kyrgyz Republic. Within the Industry and Energy Ministry, there is a dedicated department in charge of energy and fuel regulation, the Government Energy and Fuel Regulation Department of the Kyrgyz Republic. The Industry and Energy Ministry is authorised basically to issue licenses, approve electricity, heat and natural gas prices and regulate activities in the sector. Upstream petroleum operations and coal mining are licensed by the State Agency for Geology and Mineral Resources.

The primary objective in the energy sector is to achieve a financial revitalisation and establish conditions for balanced and comprehensive development of the sector and energy security in the Republic until 2025. To this end, the government aims to establish institutional and legal/regulatory framework in order to complete the restructuring process started in 2001, privatise electricity distribution and allow private investors to undertake the construction of certain generation plants. The key tariff policy regarding electricity, heat, and natural gas will seek to achieve tariff levels enabling full recovery of generation (supply), transmission and distribution costs by 2010.

The country is a net exporter of electricity (some 93% of which is generated at hydropower plants), but is dependent on imports for all kinds of fossil fuel, since indigenous production of oil and natural gas is marginal and coal production – which declined steeply during the 90s – is only recovering at a slow pace. Overall, imports constitute about 55% of primary energy supply and import dependency is particularly burdensome for natural gas and petroleum.

The district heating sector is represented by municipal companies, the largest of which is in the capital (Bishkek).

Oil and gas: Kyrgyzstan contains five oil and gas bearing basins with resources that are believed to be considerable, but mostly unproved. The proved resource base of the country is modest, but since demand for oil and gas is also moderate, Kyrgyzstan may eventually become self-sufficient in hydrocarbons, if exploration is stepped out and the relevant oilfield investment is made. The republic does not
possess the required financial and technical resources, and thus hopes to expand its hydrocarbons base and increase production in partnership with foreign investors. Exploration and production licenses for hydrocarbons and coal are issued by the State Agency for Geology and Mineral Resources.

In 1999, the state-owned joint-stock company Kyrgyzneftegaz (KNG) was set up and is now producing from seven oil fields and two oil and gas fields. Several private foreign companies are exploring new acreage or redeveloping existing fields in partnership with KNG. As of early 2006, there were five active joint ventures of foreign companies with KNG.

Refining The Republic’s oil processing sector is represented by the Djalal Abad Refinery owned by Kyrgyz Petroleum Company (KPC), which was established as a 50-50 joint venture by Kyrgyzneftegaz and Kyrgoil Corp. (Kyrgoil is controlled by Petrofac Resources International Ltd. (U.K.), part of the Petrofac Group). The refinery is designed to process typical Kyrgyz 30° API sweet crude. Because domestic production is low, KPC imports alternative feedstock such as gas condensate, semi refined products, and distillates from neighbouring countries. The refinery operates well below capacity, since it can handle lesser amounts of alternative feedstock. It is exempt from tax, yet still reports loss primarily due to the low load factor.

Gasoline and diesel fuel are also produced at two processing plants constructed in the Chui Valley by Vostok Co., a joint venture with foreign participation. The plants use as feedstock gas condensate and have been facing difficulties in obtaining feedstock after Kazakhstan banned gas condensate exports.

Pipelines, Imports, Exports, Distribution At the oil and gas fields in the Fergana Valley, there is a crude oil gathering and transportation pipeline system constructed mostly during the 60s, which was designed to supply oil from the fields to refineries in Uzbekistan. At the moment, it is partially rehabilitated and only used as a gathering system in the fields. There are no product pipelines in Kyrgyzstan.

Trade in petroleum Crude oil is not imported into Kyrgyzstan, even though the Djalal-Abad refinery operates at a low load factor and could process certain grades of the Uzbek or Kazakh crude. Some condensate (up to 50,000-70,000 tons per year) is imported and processed at the two Vostok plants in the Chui valley. Condensate and naphtha are also imported as feedstock for the Djalal-Abad refinery. However, about 85% of the petroleum products consumed in Kyrgyzstan originate abroad. Demand for products consists mostly of fuel oil (about 50% of total), gasoline and diesel (about 15-20% each), and smaller quantities of LPG and jet fuel. Overall, almost all the liquid fuels imported to the country originate in Uzbekistan and Kazakhstan, except minor quantities of LPG from Russia. There are no exports of either crude oil or refined products.

A government monopoly on petroleum trade established in 1999 was abolished in 2002, and there are now about 60 private companies engaged in imports and retailing of refined products. The largest one is controlled by an affiliate of Russia’s Gazprom.

Natural gas: Kyrgyzstan produces minor amounts of natural gas (about 30 million cubic meters per year) from its modest proved resource base. Demand, on the other hand, is running at around 700 million cubic meters per year (gas supplies about 30% of the
primary energy of the country). The difference is imported, mostly from Uzbekistan. Imports of gas weigh heavily on the trade balance of the country, wherein fuel and energy resources constitute more than 50% of imports.

The government-owned JSC Kyrgyzgas is currently responsible for most gas imports, the operation of all pipelines, and supplying most customers. Kyrgyzgas pays for about half of the gas delivered from Uzbekistan in cash and about half with Kyrgyz goods, including water supplies.

As part of the mid-term natural gas pricing policy for 2004-2006, OJSC Kyrgyzgas was reorganised. The Northern Main Gas Pipeline Department of the company was handed over to KyrKazGas (KKG), a Kyrgyz-Kazakh joint venture set up in March 2004. The government is considering privatising Kyrgyzgas, and as a first step, may split it into several companies responsible for the operation of the gas pipelines, supply and distribution. The state will retain control of the gas transportation system and continue to set tariffs for natural gas following the restructuring of KKG.

Cross-subsidies still persist in the gas sector, with household prices set at a lower level than industrial prices. Measures to reduce process and commercial losses have not been implemented in full. Many households have not yet been provided with gas meters. Medium pressure gas transmission lines do not have cathodic protection, and gas equipment wear and tear is up to 80%. Currently, there is an urgent need for investment in equipment replacement and rehabilitation.

Prices for gas and tariffs for its transportation are set by the State Department for the Energy Sector Regulation at the Industry and Energy Ministry based on calculations provided by Kyrgyzgas and KyrKaz Gaz.

Coal: Kyrgyzstan has considerable coal resources. Known, probable and possible coal resources are estimated at 6.73 billion tons of hard and bituminous coal and lignite. Recoverable coal resources are estimated at 1.3 billion tons, placing Kyrgyzstan fourth in rank in the former Soviet Union after Russia, Kazakhstan, and Ukraine.

While in the 1980s the coal industry alone was responsible for more than 50% of the country’s mining and industrial output and employed almost 60% of the mining and industrial labour force of Kyrgyzstan, it has been on a fast decline over the subsequent years. Current consumption is around 1-1.3 million tons per year, of which some 0.7-1 million tons of imports. Imports could easily be offset by domestic production. Nevertheless, the country is a net importer of coal (almost exclusively from Kazakhstan). The largest consumer of coal in the country is the thermal power plant in Bishkek, which is owned and operated by the government-controlled power company, Kyrgyzenergo.

The leading coal mining company is the state-owned Kyrgyzkomur (Kyrgyz Coal), which is primarily a service company, with major mining operations structured as separate enterprises. Kyrgyzkomur continues to make a loss and receives subsidies to stay in business. In the meantime, most of the coal mines have been either privatised or the operating companies have been put up for management-employee buy-out. At present, private companies are engaged in coal production at small mines located throughout Kyrgyzstan. Safety and security concerns together with use of child labour
are frequently cited as major problems at small mines which have been abandoned earlier, but are now operated again by local entrepreneurs.

Electricity: The country has a very large hydro potential thanks to its geographic features. Total usable hydropower potential is up to approximately 26,000 MW. A state-owned company operates 19 hydropower plants.

In Soviet times, Kyrgyzstan was supplied with fossil fuel by other republics in the FSU. Following the independence, priority was given to Kyrgyzstan’s own needs for electricity and the plants began operating mostly in winter, when electricity demand is high and water has to be stored for summer. This caused extra winter discharge and claims by downstream countries for flooding. International agreements were signed to provide a framework for cooperation in the use of hydro resources, but the agreements often left many issues open and implementation is poor.

Kyrgyzstan’s own market is relatively small and the country already produces more electricity than it consumes. Consequently, any major investment to exploit the hydropower potential can only be justified by electricity exports. Southern Kazakhstan and Uzbekistan are the available markets. A larger regional cooperation project involving exports to Pakistan, Afghanistan and China is also possible.

The country is connected to the other Central Asian republics by the Central Asian Integrated System 500-kilovolt lines, controlled by the Tashkent dispatching centre. The transmission and distribution system has serious problems attributable to natural disasters, overloading, and its age; reliability is thus poor. Overloading occurs during the winter because a large part of the population uses electricity for space heating, primarily for two reasons: there is no district heating network outside Bishkek and Osh and electricity is cheaper than other sources of heat.

The main issues which deter investors from participation in Kyrgyzstan’s electricity sector are the difficult access to markets and problems with the regulatory and legal base.

Generation plants: The owner and operator of the generation plants is the state-owned JSC “Electricheiske Stancii” (Electric Power Stations, EPS). There are a total of 23 power plants with a total installed capacity of 4,281 MW, including 21 hydropower plants with a total installed capacity of 3,744 MW and two heat-and-power plants with a total installed capacity of 638 MW.

EPS plans to continue prioritising energy over irrigation in the use of the hydro resources of the country. The largest possible projects for new HPPs include Kambarata HPP 1 and Kambarata HPP 2, with a total installed capacity of 2,260 MW.

Electricity Networks: The high voltage network of the country (≥35 kV) is owned and operated by the government-controlled National Power Grids Co. (NPG). It also manages inter-system high voltage transmission lines with neighbouring countries, dispatches the national electric network and assures the reliable operation and the safety of power facilities in compliance to standards and rules. The high voltage network is part of the united Central Asia electricity system, dispatched from Tashkent (Uzbekistan). There are four electricity distribution companies set up on a regional basis which own and manage the 0.4-35 kV lines, of which there are more than 65,000 km, and serve more than 1.1 million households and other consumers.
Distribution companies are obliged to provide uninterrupted electric power to all consumers in their respective regions, except in areas served by generating companies, if there is a contract for direct supply. They are also obliged to buy electricity from generators, except where they themselves generate electricity; and also can import and export electricity via networks rated at 35 kV or less.

There is still considerable amount of loss and non-payment persists, which poses serious financial problems for the industry. Currently there are a number of initiatives to raise public awareness about this issue, helped by international donors and agencies. To rectify and provide a lasting solution to this bottleneck, and to introduce restructuring into the distribution sub-sector, there are plans to proceed with the privatisation of transmission and distribution of electricity.

Nuclear Energy: Kyrgyzstan has considerable resources of uranium ores, but of low grade. Uranium mining decreased precipitously in Kyrgyzstan in the mid-1980s and was discontinued in 1989. At present, Kyrgyzstan does not produce or use nuclear material. Uranium enrichment may restart soon, depending on availability of international funding.

There are no nuclear power plants in the country and no plans to build them.

Renewable Energy: Kyrgyzstan has adequate solar energy resources, but there are economic and institutional barriers for developing solar energy. There is no feed-in tariff for electricity from renewable energy sources and no particular legal framework for support of solar energy projects.

Currently there is no operative wind energy capacity in Kyrgyzstan. On the other hand, the Republic has sufficient know-how and production capacity at idle factories for producing biogas equipment and there are currently some small scale applications.

The geothermal resources of Kyrgyzstan are small and insufficiently studied. It is planned to use the thermal water in the area of the city of Bishkek and in the valley of lake Issyk-Kul. Total thermal water resources in the republic have not been estimated. To sum up, the following may illustrate some of the major problems in the energy industry of Kyrgyzstan:

- Subsidised energy, which is used to support energy-intensive exports (gold, lead), agriculture and social welfare programs;
- Low efficiency of the use of energy (energy intensity of GDP is about 3 times higher than average world energy intensity);
- Serious problems with emissions control and reduction;
- The extensive use of subsidised electricity for space heating and hot water;
- High import dependency (oil and gas);
- High degree of wear and tear at almost all major energy sector facilities;
- Difficulties in balancing water use for power generation and irrigation;
- Difficulties in raising funding for the construction of new hydropower plants;
- Difficulties in dealing with losses, metering, accounting and payment collection.
Overall, Kyrgyzstan is still living through problems in transforming itself from a transition to market economy, including the energy sector. It is yet struggling to ensure stability and confront the various challenges that emerge in transition to market. Despite the intentions of the government in pursuing reform programs, barriers to foreign investment persist, especially in the implementation phase of legislation and reform. Security issues as well as the inadequate judicial infrastructure are the two areas where investors most often urge the government to address the shortcomings in the short run. Institutional sound practices are the most lacking. As a result, the general investment climate is far from satisfactory in the eyes of investors.

The energy sector needs decisive implementation of reform policies in a consistent manner to start providing the right signals to potential investors. Energy independence and supply security are the two important issues which the authorities stress.

Despite all these challenges, the government’s openness and readiness to address the problem areas, as well as its courage to curb the negative trends are promising and should be appreciated.
II. INTRODUCTION

II.1. Basic facts about Kyrgyzstan

II.1.1. General Information

The Kyrgyz Republic is a small (the area is 198 thousand km² and the population is 5 mln), low-income and land-locked country in Central Asia, bordering Kazakhstan, China, Tajikistan and Uzbekistan (Figure 1).

![Map of Kyrgyzstan](http://geography.about.com/library/cia/blckyrgyzstan.htm)

Kyrgyzstan occupies the Tien Shan and Pamirs-Alai mountain ranges which stretch for hundreds of kilometres across the north-eastern part of Central Asia and cover over 80% of the country (Kyrgyzstan is occasionally referred to as “the Switzerland of Central Asia”). The remainder is made up of valleys and basins. Lake Issyk-Kul in the north-western Tien Shan is the largest lake in Kyrgyzstan and the second largest mountain lake in the world.

The vast part of the territory is situated within the zone of temperate climate, and only the southern part is situated in the subtropical zone. The climate is defined as continental with relatively small amount of precipitation and droughty, with a strict contrast of seasons. In 2005 approximately some 7% of Kyrgyzstan’s land surface was classified as arable, of which 85% is irrigated, and 0.3% was planted to permanent crops. The remainder is mountains, glaciers, and high-altitude steppe that are used for grazing. Kyrgyzstan has the world's largest natural-growth walnut forests.

Kyrgyzstan has a relatively young population. In 2006 some 31% of the population was 14 years of age or younger, and only 6% was 65 years of age or older.4

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Kyrgyz people represent the nation of the Kyrgyz Republic which is one of the most ancient people in the world. The first written evidence of the Kyrgyz people as a nation is found in Chinese chronicle dated as far back as 2,000 BC. The name Kyrgyz, both for the people and for the nation itself, is said to mean "forty girls", a reference to the Manas of folklore unifying forty tribes. The earliest descendents of the Kyrgyz people, who are of Turkic descent, lived in the northeastern part of what is currently Mongolia who later migrated south and settled in the territory currently known as the Kyrgyz Republic. Soviet power was later established in the region in 1918, until 1990s. The Kyrgyz language belongs to the Southern Turkic group of languages. In 1924, an Arabic-based Kyrgyz alphabet was introduced, which was replaced by Latin script in 1928 to be followed by Cyrillic script in 1941.

Kyrgyzstan is a secular state with Islam as the dominant religion in the country – about 85% as of 2005.

Kyrgyzstan was the first Central Asian country to declare its independence in 1991 and emerge as a democratic and liberal reform-oriented country, providing a comprehensive program of market reforms. The 1993 constitution defines the form of government as a democratic and secular republic. Since independence, the country has undertaken the important transition toward a democratic political system and a market economy. Significant achievements to date include maintaining a low stable rate of inflation, successfully completing a mass privatisation program and establishing a stable currency that is freely convertible with no controls on capital flows.

Developments in the Soviet regime resulted in the unavoidable independence of the country in 1991. Following independence, in October 1991, Askar Akayev was elected President of the new independent republic. Together with the representatives of seven other republics, he signed the Treaty of the New Economic Community that same month. On December 21, 1991, the Kyrgyz Republic formally entered the new Commonwealth of Independent States (CIS).

The first constitution of the independent Kyrgyzstan was passed by the parliament in May 1993. In October 1994, a referendum was overwhelmingly approved by voters, which proposed two amendments to the constitution— one that would allow the constitution to be amended by means of a referendum, and the other creating a new bicameral parliament called the Jogorku Kenesh.

Elections for the two legislative chambers – a 35-seat full-time assembly and a 70-seat part-time assembly – were held in February 1995. The new parliament convened its initial session in March 1995. One of its first orders of business was the approval of the precise constitutional language on the role of the legislature. In 1995, President Akayev was re-elected for another 5 year term. Another referendum in 1996 – in violation of the constitution and the law on referendums – amended the constitution to empower further the President. Although the changes gave the president the power to dissolve parliament, it also more clearly defined the parliament’s powers. Yet another referendum in 1998 approved constitutional changes, including increasing the number of deputies in the lower house, reducing the number of deputies in the upper house, providing for 25% of lower house deputies to be elected by party lists, rolling back parliamentary immunity, introducing private property, prohibiting adoption of laws restricting freedom of speech and mass media, and reforming the state budget.
Two rounds of parliamentary elections were held in 2000. The amendments to the constitution approved by the referendum in 2003 resulted in further control by the president and weakened the parliament and the Constitutional Court. Under the new constitution, the previously bicameral parliament became a 75-seat unicameral legislature following the 2005 parliamentary elections. Parliamentary elections were held February 27 and March 13, 2005.

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Sporadic protests against widespread fraud during the parliamentary runoff elections in March 2005 erupted into calls for the government to resign. By March 24, demonstrators called for the resignation of the president and his regime in Bishkek. Some injuries were reported when opposition demonstrators were attacked by police and pro-government thugs. Protestors seized the presidential administration building,
after which President Akayev left the country. Looting broke out in parts of Bishkek on the evening of March 24, causing an estimated $100 million in damage.

Opposition leaders moved to form a broadly inclusive “Committee of National Unity.” Opposition leader Kurmanbek Bakiyev was named acting President and easily won the July 10, 2005 presidential elections with over 88% of the vote. An unprecedented number of domestic and international observers monitored the elections and noted significant improvements in the electoral process over the parliamentary elections, although there were some reports of irregularities.

Opposition groups held a series of demonstrations in 2006, including the entire first week of November, to protest the lack of progress on reform, in particular of the constitution, promised by President Bakiyev in 2005. The Kyrgyz parliament adopted amendments to the constitution and President Bakiyev signed the amended constitution on November 9, 2006, which limited the powers of the president and increased the role of parliament. After the government resigned on December 19, the Kyrgyz parliament voted on December 30 to adopt new amendments restoring some of the presidential powers lost in November. President Bakiyev signed the changes into law January 15, 2007.

Preparatory work for the constitutional reform is in progress and the adoption of the new Constitution is expected in 2007. Issues of reforming administrative and territorial units are also being studied in order to cut the number of civil servants, management structures and budget management.

Kyrgyzstan is divided into seven provinces (oblasts) administered by appointed governors. The capital, Bishkek, is administratively an independent city (shaar) with a status equal to a province (Figure 2 below).

**Figure 2: Administrative Divisions of Kyrgyzstan**

The provinces, and capital city, are as follows:

1. Bishkek
2. Batken
3. Chui (Chui-Tokmok)
4. Djalal-Abad
5. Naryn
6. Osh
7. Talas
8. Issyki-Kul (Karakol)
Each province comprises a number of districts (raion), administered by government-appointed officials (akim). Rural communities (ayıl ökmötü), consisting of up to twenty small settlements, have their own elected mayors and councils.5

II.2. Significance of the energy sector in the economy of the country

The electricity sector is the most significant energy sub-sector. The power industry as a total contributed 5% of the GDP in 2006. It also plays an important role for the economic development of the country as a basic provider of energy to industry and households and by ensuring a hard currency from electricity exports. Electricity exports reached a total of 2,508 million kW in 2006.

II.3. Legislature, Executive and Judicial Branches

The unicameral Parliament (which is named as (“Jogorku Kenesh”) of the Kyrgyz Republic is the representative and legislative body which exercises the state power, and acts on the permanent basis; independently decides matters in accordance with the Constitution, the Constitutional Laws and the Laws of the Kyrgyz Republic.

The Constitution determines the status of the Parliament.

Powers of the Parliament are:

- to adopt and amend the Constitution of the Kyrgyz Republic and also to adopt the new version of the Constitution as defined by the Constitution;
- to adopt laws;
- to officially interpret the Constitution and laws adopted by it;
- to alter the borders of the Kyrgyz Republic;
- to approve the republican budget and the reports on its implementation by the Government;
- to decide the matters of the administrative-territorial structure of the Kyrgyz Republic;
- to call Presidential elections;
- to adopt state programmes of socio-economic development presented by the Government;
- to approve the structure of the Government as presented by the Prime-minister;
- to impeach credibility of the Government or a member of the Government in the cases provided for by the Constitution;
- to select and remove from office the Judges of the Constitutional Court as presented by the President; to give consent to bring criminal or administrative charges against them in accordance with judicial procedures;
- to select and remove from office the Judges of the Supreme Court of the Kyrgyz Republic; to give consent to bring criminal or administrative charges against them in accordance with judicial procedures;
- to hear President’s messages and statements;

• to accept appointment of the Prosecutor General; to give consent to bring criminal or administrative charges against him in accordance with judicial procedures;
• to accept appointment of the Chairman of the National Bank;
• to accept appointments of the Chairman of the Central Commission on Elections and Referendums;
• to elect half of the members of the Central Commission on Elections and Referendums; to dismiss them in cases and according to the procedure provided for by the law;
• to accept appointment of the Chairman of the Auditing Chamber;
• to elect half of the members of the Auditing Chamber; to dismiss them in cases and according to the procedure provided for by the law;
• to accept appointment of Judges for local courts; to give consent to bring criminal or administrative charges against them in accordance with judicial procedures;
• to select and remove from office the Ombudsman (Akyikatchy) and his deputies; to give consent to bring criminal or administrative charges against him in accordance with judicial procedures;
• to ratify and denounce international treaties according to the procedure provided for by the law;
• to declare the state of emergency, to approve or withdraw Presidential decrees on this matter;
• to decide matters of war and peace; to declare the state of martial law, to declare the state of war, to approve or withdraw Presidential decrees on this matter;
• to decide on possibility of using the armed forces of the Kyrgyz Republic outside its territory in case of need to fulfil interstate treaty obligations on peacekeeping and security;
• to establish military, diplomatic and official ranks and other special titles of the Kyrgyz Republic;
• to institute state decorations and honorary titles of the Kyrgyz Republic;
• to promulgate acts of amnesty;
• to hear the statements of foreign leaders and other representatives of foreign states and international organisations;
• to hear the annual reports of chairmen of the Constitutional Court, the Supreme Court, the Ombudsman (Akyikatchy);
• to hear the annual reports of the Prime Minister on the Government’s work, the Prosecutor General, the Chairman of the National Bank, the Chairman of the Auditing Chamber;
• to bring accusations against the President; to deprive the President of his position.

Hearing of annual reports and statements of the officials referred to in this article is carried out subject to provisions of this Constitution and Laws on the independence of relevant state bodies and their officials.

The Parliament consists of 90 deputies elected for the term of five years. Any citizen, who has reached the age of 25 by the day of election can be elected as a Deputy of
Parliament of the Kyrgyz Republic. Under the present Constitution there is no requirement to have permanently resided in the Kyrgyz Republic for a period of 5 years.

The sessions of Parliament are held in the form of meetings, which are open to public unless prescribed otherwise by the parliament in accordance with law. The rights, duties and basic guarantees of the activities of Parliament deputies are also provided for in the Constitution. Evasion from voting is not allowed. Deputies have certain immunities under law.

The executive branch comprises the president, the prime minister, and a cabinet consisting of four deputy prime ministers, 13 ministers, the general prosecutor, and the heads of six national agencies, commissions, and committees. Following the constitutional reform of 2006, the prime minister is appointed by the party receiving a majority in elections. That reform also deprived the president of the right to dismiss parliament.

Presidential power increased as the result of a 2003 referendum, the conduct of which received international criticism. The president is directly elected to a five-year term, with a two-term limitation that was circumvented by Akayev in a 1998 referendum. In early 2005, stimulated by allegedly unfair elections, opposition demonstrations in the cities brought about Akayev’s resignation in what became known as the ‘Tulip Revolution’. His successor, former prime minister Kurmanbek Bakiyev, who was elected President in July 2005 by popular vote for a five-year term (eligible for a second term), pledged in 2005 to restore some powers to the legislative branch.

The Cabinet of Ministers is appointed by the president on recommendation of the prime minister. Following legislative elections under the constitution, prime minister is nominated by the president for approval by the Parliament, and the prime minister will propose and the president appoints members of the Cabinet, except for ministers in charge of defense and security, who will be appointed solely by the president. However, the constitution calls for the legislature to propose and the president to appoint the prime minister after legislative elections, currently scheduled for 2010.

Prime-Minister is the head of the Government. The Government consists of the Prime-Minister, vice Prime-Ministers, ministers and chairmen of State Committees.

The Government structure is defined by the Prime-Minister and includes ministries and state committees. The Government structure is approved by the Parliament.

Judges of the Constitutional Court and Supreme Court are presented by the President and elected by the Parliament until they reach the age limit.

A citizen of the Kyrgyz Republic not younger than 35 and not older than 70 years having a law degree and legal experience of not less than 10 years, including 5 years as a judge, may become a judge in the Constitutional Court or Supreme Court.

Of a list of judges of Constitutional Court and Supreme Court the President, with the approval by the Parliament, appoints the Chairman of the Constitutional Court, the Chairman of the Supreme Court and their deputies for a five-year term.
A citizen of the Kyrgyz Republic not younger than 35 and not older than 65 years having a law degree and legal experience of not less than 5 years may become a judge in a local court. The Constitutional Law on the Status of Judges can contain additional requirements for candidates for positions of local courts judges.

Judges of local courts are presented by the National Council on Matters of Justice and appointed by the President initially for the term of 5 years, for the second time for the term of 10 years and for the third time – until they reach the age limit.

Of a list of judges of local courts the National Council on Matters of Justice presents and the President appoints chairmen of local courts and their deputies for the term of 5 years.

Most cases originate in local courts; they then can move via the appeals process to municipal or regional courts, with the Supreme Court the final court of appeals. Property and family law disputes and low-level criminal cases are heard by traditional elders’ courts, which are loosely supervised by the prosecutor’s office. Economic disputes and military cases are heard in specialised courts. The constitutional amendments of 2003 expanded the scope of the Supreme Court in civil, criminal, and administrative proceedings. Many protections of western jurisprudence have not been incorporated into Kyrgyzstan’s system, which retains many features of the Soviet system.

The problems encountered in the legal environment depict themselves in a study held by the World Bank, whereby investors cite the difficulties they face with the effectiveness of the legal system as a major constraint (see Figure 3 below).

Figure 3: Difficulties within the legal system

![Figure 3: Difficulties within the legal system](image)

Source: World Bank Investment Climate Survey 2005
II.4. Economy

General economic outlook

Kyrgyzstan has been subject to a set of challenging conditions at the initial steps and had economic difficulties following independence. As a result, public expenditures have been cut, most price subsidies were cut and a value-added-tax was introduced, and there was a commitment to the transition to a market economy. With a small population (around 5 million) and one of the least accessible locations in the world, things worsened a result of the break-up of the Soviet trading bloc and resulting loss of markets, since in 1990, 98% of Kyrgyz exports were to other parts of the Soviet Union. This structure impeded the transition to a free market economy. Inadequate physical infrastructure and protectionist policies in neighbouring countries contributed further to its isolation, and international trade and transport has therefore been subject to significant barriers. The Republic is seeking to establish economic stabilisation and long-term consistent growth; and as a result of the reform program, the Republic acceded to the World Trade Organisation (WTO) on December 20, 1998.

The reform process has in general been partial, and remains incomplete. Relative prices in non-tradable goods, particularly utilities, remain suppressed, hampering the gradual transformation of these sectors into profitable entities which generate savings and attract investments. Unlike in some other CIS countries, market signals continue to be distorted in the Kyrgyz Republic and resources are therefore only partially re-allocated to sectors with the highest potential returns, further hampering diversification of the economy.

The Republic’s close proximity to three fast growing countries (China, Russia and Kazakhstan) has provided an opportunity for the expansion of exports. Even after a decade and a half transition, production in the Republic is mostly concentrated in non-manufacturing groups: primary agricultural goods (cotton, tobacco, hides and skins), electric power and gold. However, due to the above constraints, Kyrgyz export supply has not adapted well to the shifting demand in these markets for increasingly sophisticated and high quality food products and manufactures. Instead, a steady and growing flow of migrants has led to significant remittance flow into the Kyrgyz economy, mainly from Russia and Kazakhstan.

Due to geographic features of the country, there is not much left for agriculture, since only about 7% of the country’s land is arable. Yet, agriculture is still an important sector of the economy in the Kyrgyz Republic in comparison to the other sectors. By the early 1990s, the private agricultural sector provided between one-third and one-half of some harvests. In 2002 agriculture accounted for 35.6% of GDP and about half of employment. The Kyrgyz Republic's terrain is mountainous, which accommodates livestock raising, the largest agricultural activity. Main crops include wheat, sugar beets, cotton, tobacco, vegetables, and fruit. Wool, meat, and dairy products also are major commodities.

Agricultural processing is a key component of the industrial economy, as well as one of the most attractive sectors for foreign investment. The Kyrgyz Republic is rich in mineral resources but has negligible petroleum and natural gas reserves; it imports petroleum and gas. Among its mineral reserves are substantial deposits of coal, gold, uranium, antimony, and other rare-earth metals. Metallurgy is an important industry, and the government hopes to attract foreign investment in this field. The government has actively encouraged foreign
involvement in extracting and processing gold, since known gold reserves are being depleted and, without new discoveries, they will be close to exhaustion within a decade. The Republic’s plentiful water resources and mountainous terrain enable it to produce and export large quantities of hydroelectric energy to neighbouring fast growing energy thirsty countries. Nevertheless, output of hydropower has been constrained by depletion of assets that has taken place over the past 15 years, and thus, there is a need for investment to make use of the hydro potential.

The industrial structure has not developed much and is concentrated around the following; small machinery (electric motors, transformers), light industry (cotton and wool processing, textiles, food processing), construction materials (cement, glass, slate), shoes, furniture, mining, and energy.

**Macroeconomic Developments**

In 2005, Kyrgyz real GDP decreased 0.5%, but then grew 2.7% in 2006. According to the National Statistics Committee (NSC), GDP in 2006 amounted to 113.2 billion soms or $ 2.8 billion. However, the Kyrgyz Republic remains one of the poorest countries of the former Soviet Union with 2006 wages averaging $73 per month. While official unemployment numbers are relatively low, actual unemployment figures are complicated by the large number of workers who have moved (temporarily or permanently) to Russia and Kazakhstan in search of work. The government in partnership with international donors is tackling with poverty, but approximately half of the population continues to live under the poverty line.

The trajectory of Kyrgyz output since transition is similar to that of the other small, resource poor CIS countries (see Figure 4 below on GDP growth rate in 1996-2006). After an initial decline, real GDP started to recover in 1996 and reached 80% of its pre-transition level by 2005. The initial output shock in the Kyrgyz Republic (50%) was less severe than in other small poor CIS countries (where it was more than 60%).

GDP growth has been strong at the beginnings but it was followed by relatively modest figures and subject to volatility. The Republic grew at an annual rate of 4.7% during 1996-2005 (at less than 4% in 2000-2005). This growth rate was lower than in similar CIS countries (that is, 6-7% over the whole period and above 8% since 2000). There have been three major slow-downs in 1998, 2002 and 2005 due to various exogenous shocks, including the 1998 regional financial crises, the 2002 drop in gold production and the political events.6

In early July 2007, the National Statistics Committee (NSC) announced that the Kyrgyz national economy grew 9.2% in the first half of this year compared to the same period last year, yet this has been criticised to have been an inflated figure and that the country’s economy is only just starting to crawl back after a two-year dip. The high figure for GDP growth is said to have been driven principally by 9% growth in the electricity sector over half-year, and increased activity in the industrial, agriculture and construction sectors.7

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As for a sectoral analysis (see Table 2 below), services, gold and agriculture have been the main drivers of economic growth in the Kyrgyz Republic over the past decade. Growth relied primarily on agriculture in the 1990s (above 9% in 1996-1999) supplemented by the initiation of gold production. After 2000, growth was dominated by services (driven by a growth of aggregate demand fuelled by remittances) at 6.9% compared with 1.9% from 1996-1999. For the same reason, construction has also been growing strongly since 2000, at an average of over 10% annually. In contrast the high agricultural growth rates of the 1990s declined just 2.5% since 2000. While gold still contributes significantly to the balance of payments, it has had a negative overall impact on growth rate since 2000.

Table 2: GDP Growth Rates and Structure

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (growth rate, %)</td>
<td>-12.5</td>
<td>5.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Agriculture</td>
<td>-5.9</td>
<td>9.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Construction</td>
<td>-12.4</td>
<td>-11.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Gold</td>
<td>0.0</td>
<td>10.6</td>
<td>-3.9</td>
</tr>
<tr>
<td>Power</td>
<td>NA</td>
<td>-1.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Manufacturing and non-gold mining</td>
<td>-21.1</td>
<td>0.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Services</td>
<td>-10.3</td>
<td>1.9</td>
<td>6.9</td>
</tr>
<tr>
<td>Non-Gold GDP (growth rate, %)</td>
<td>-12.5</td>
<td>4.2</td>
<td>4.7</td>
</tr>
</tbody>
</table>

1/ Gold growth rate refers to 1998-99 only. Gold output was zero in 1996 and increased to 6.4% of GDP in 1997.
2/ Gold production was disrupted in 2002 and declined in 2005.

Relative weight of sectors in the economy for a ten-year period is provided in the following Table 3. In 2005, services sector ranks the most contributing sector by 45%, followed by agriculture by 34.1%.

Table 3: Structure of Economy (1995-2005)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1985 (%)</th>
<th>1995</th>
<th>2004 (%)</th>
<th>2005 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>43.9</td>
<td>33.3</td>
<td>34.1</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>19.5</td>
<td>24.1</td>
<td>20.9</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9.3</td>
<td>17.1</td>
<td>14.1</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>36.6</td>
<td>42.6</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>Household final consumption expenditure</td>
<td>75.9</td>
<td>76.0</td>
<td>85.9</td>
<td></td>
</tr>
<tr>
<td>General govt final consumption expenditure</td>
<td>19.5</td>
<td>18.2</td>
<td>18.9</td>
<td></td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>42.4</td>
<td>51.3</td>
<td>58.2</td>
<td></td>
</tr>
</tbody>
</table>

Note: 2005 data are preliminary estimates.


According to a recent statement, the total debt is $2,176 million, of which $185 million is internal debt and the remaining $1,991 million is the external debt. Lower than expected growth and delayed fiscal adjustment resulted in longer and heavier reliance on foreign credits than in other CIS countries. The debt burden is high at over 70% of GDP in nominal terms in 2006 even after significant debt relief through two consecutive Paris Club restructurings. In 2005 the Net Present Value (NPV) of debt to government revenues was 304%, making the Kyrgyz Republic eligible to seek debt relief under the HIPC, but strong revenue performance in 2006 has reduced debt ratios to below those required for HIPC eligibility. About 13% of government revenue was required for debt service in 2006, and even without HIPC and Multilateral Debt Relief Initiative (MDRI) debt relief, this will decline to around 10% in 2010. Had the government decided to participate in the HIPC initiative, this would have been cut to about 4% of revenues by 2010. Kyrgyzstan’s external debt has increased by $50 million in the last two years (2005-2007).

As far as inflation is concerned, it has been a serious problem in the early 1990s, as the rate reached as high as 700% in 1993. With the exception for a brief spike caused by the Russian financial crisis of 1998, the government has controlled inflation much better in the late 1990s and early 2000s. In 2004 the inflation rate was 3.2%, and in 2005 it was 5.2%, finally reaching 5.6% in 2006.
Table 4: Selected Economic Indicators

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal GDP (in bln soms)</td>
<td>65.4</td>
<td>73.9</td>
<td>75.4</td>
<td>83.4</td>
<td>92.3</td>
<td>100.8</td>
<td>111.1</td>
<td>121.7</td>
</tr>
<tr>
<td>Nominal GDP (in mln US$)</td>
<td>1,367</td>
<td>1,525</td>
<td>1,606</td>
<td>1,911</td>
<td>2,176</td>
<td>2,399</td>
<td>2,646</td>
<td>2,898</td>
</tr>
<tr>
<td>Per Capita GDP (in US$)</td>
<td>278</td>
<td>309</td>
<td>324</td>
<td>378</td>
<td>425</td>
<td>465</td>
<td>508</td>
<td>551</td>
</tr>
<tr>
<td>Real GDP (growth in %)</td>
<td>5.3</td>
<td>5.4</td>
<td>0.0</td>
<td>6.7</td>
<td>6.0</td>
<td>5.0</td>
<td>5.9</td>
<td>5.5</td>
</tr>
<tr>
<td>Primary Balance (excl. grants)</td>
<td>-4.5</td>
<td>-4.3</td>
<td>-5.0</td>
<td>-4.2</td>
<td>-3.2</td>
<td>-3.0</td>
<td>-2.7</td>
<td>-2.7</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>3.1</td>
<td>3.2</td>
<td>3.1</td>
<td>3.1</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>CPIs (% change, average)</td>
<td>18.7</td>
<td>6.9</td>
<td>2.1</td>
<td>3.1</td>
<td>4.1</td>
<td>4.0</td>
<td>3.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Poverty rate</td>
<td>52.0</td>
<td>48.0</td>
<td>44.0</td>
<td>41.0</td>
<td>35.0</td>
<td>n.a</td>
<td>n.a</td>
<td>n.a</td>
</tr>
</tbody>
</table>

Source: World Bank Investment Climate Survey 2005

A more detailed Table reflecting macroeconomic developments is provided in Annex 1.

**Foreign Direct Investment**

Kyrgyzstan acceded to the World Trade Organisation (WTO) on 20 December 1998 and has been pursuing market-based reforms, privatisation of state-owned enterprises and promotion of FDI to support economic development. The government has taken steps to improve the legal, regulatory and institutional frameworks for investment in the country. The government has also adopted a freely convertible currency regime and there are no foreign exchange controls. Foreign investors are entitled to the same treatment as local investors.

A new “Law on Investments”, enacted in 2003, provides the legal framework applicable to activities of investors within the country. It provides fair and equal treatment for investors and the protection of their investments in Kyrgyzstan. The law also regulates legal relationships between investors and governmental bodies of the country, allowing investors to resolve disputes that may arise through international arbitration proceedings. Ownership of land by foreign investors is restricted; however, land can be leased. Kyrgyzstan has established several economic zones in 1992 in accordance with relevant regulation (see Section II for further details). Foreign investors may establish wholly foreign-owned enterprises or joint ventures, acquire shares in existing entities and participate in privatisation programmes.

In 2001, the government established the Investment Promotion Centre (IPC) under the State Committee of the Kyrgyz Republic on State Property and Direct Investments. IPC acts as a one-stop shop to assist foreign investors in investing in the country. It provides information on investment opportunities, assists foreign investors to contact interested partners for project implementation, and provides administrative facilities in obtaining permits, licenses and registration certificates. The Consultative Council on Foreign Investment was established in 2001 by the Decree of the President. The Council, chaired by the President, provides a platform for investors and the government to exchange views and discuss policy implementation and related measures in improving the investment climate of the country.

The figures relating to the FDI flows are neither significant nor promising, and this is clearly visible in the following Figure 5, which illustrates the net amounts of FDI year-on-year for 1995-2003.
As a country struggling to build up an institutional framework in all areas of governance, and despite the ongoing reform processes since the independence more than a decade ago, the results have not been very satisfactory. One can notice it in many indexes that are published by various organisations worldwide. For example, according to World Economic Forum (WEFORUM)’s index of 2007, the country ranks 118 among 124 countries in terms of rules governing FDI, and also ranks 111 regarding foreign ownership restrictions. For a detailed list of indexes in a wide variety of other issues please look at Annex 2.

Another index is that of the World Bank, where Kyrgyzstan ranks 90 out of 175 countries in 2006 regarding the ease of doing business. One promising thing is that the country performed better compared to the previous year, according to the index, by 14 points. Also, it is highly noteworthy that on grounds for investor protection Kyrgyzstan ranks strikingly high, as 31, which may be considered as a promising feature to allure foreign investors. Further details of this index are provided in the Table 5 and Figure 6 below.

<table>
<thead>
<tr>
<th>Ease of</th>
<th>2006 rank</th>
<th>2005 rank</th>
<th>Change in rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing Business</td>
<td>90</td>
<td>104</td>
<td>+14</td>
</tr>
<tr>
<td>Starting a business</td>
<td>41</td>
<td>34</td>
<td>-7</td>
</tr>
<tr>
<td>Dealing with Licenses</td>
<td>143</td>
<td>138</td>
<td>-5</td>
</tr>
<tr>
<td>Employing Workers</td>
<td>63</td>
<td>64</td>
<td>+1</td>
</tr>
<tr>
<td>Registering Property</td>
<td>31</td>
<td>54</td>
<td>+23</td>
</tr>
<tr>
<td>Getting Credit</td>
<td>65</td>
<td>96</td>
<td>+31</td>
</tr>
<tr>
<td>Protecting Investors</td>
<td>33</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>Paying Taxes</td>
<td>150</td>
<td>152</td>
<td>+2</td>
</tr>
<tr>
<td>Trading Across Borders</td>
<td>173</td>
<td>171</td>
<td>-2</td>
</tr>
<tr>
<td>Enforcing Contracts</td>
<td>38</td>
<td>37</td>
<td>-1</td>
</tr>
<tr>
<td>Closing a Business</td>
<td>127</td>
<td>129</td>
<td>+2</td>
</tr>
</tbody>
</table>

On account of irregularities regarding the institutional efficiency, there are still ways to go in securing a trustworthy and business friendly environment. The government is tackling with such issues, yet much remains to be done. The problem of corruption and bribery still persists despite the struggles of the government. The perception, according to some indexes based on some surveys (see Figures 7 below) illustrates the severity of this barrier that certainly impedes any major development in the business climate. It even worsened from 2002 to 2005.

Although the country has a demographic structure that has more than half of the population being available for the workforce and that the labour regulations are in general regarded as highly business friendly, according to a survey made in 2005, companies still address lack of skilful workers as one of the major problems (see Figure 8 below).
Another recent report provides some other index in which private firms’ views on the business climate are reflected (see Table 6 below). According to this survey, business circles perceive that tax administration, macroeconomic and regulatory certainty are the most worrying concerns.

### Table 6: General Constraints to Business Operation

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Administration</td>
<td>59.41</td>
</tr>
<tr>
<td>Macroeconomic Instability</td>
<td>57.80</td>
</tr>
<tr>
<td>Regulatory Policy Uncertainty</td>
<td>56.73</td>
</tr>
<tr>
<td>Tax rates</td>
<td>54.65</td>
</tr>
<tr>
<td>Cost of financing</td>
<td>50.32</td>
</tr>
<tr>
<td>Corruption</td>
<td>44.58</td>
</tr>
<tr>
<td>Access to Financing</td>
<td>43.79</td>
</tr>
<tr>
<td>Anti-competitive or informal practices</td>
<td>31.93</td>
</tr>
</tbody>
</table>

A further detailed list of the indexes on how the country is viewed by the investors – in accordance with a survey which was performed by the World Bank in 2005 – is provided as Annex 3.

**Foreign Trade Developments**

According to data from the National Statistical Committee (NSC), the Kyrgyz Republic’s trade deficit more than doubled year on year in January-October 2006 to
US $ 812 million, up from US $ 393 million in the same period of 2005. In part, this was attributable to a 41% increase in trade turnover, but the rise in prises of energy imports was the main reason for the widening deficit: import costs were more than twice as high as export receipts. Trade turnover with Russia, the Kyrgyz Republic’s most important economic partner, reached US $ 560 million in January-October 2006, compared with bilateral trade of US $ 543 million in 2005 as a whole. The importance of gold in Kyrgyz export revenue was still evident in a positive trade balance of US $ 175 million with Switzerland, which is the main purchaser of Kyrgyz gold. Although export revenue in the first three months of 2006 rose by 94% year on year, if gold revenues are excluded, the increase comes down to 33%. High prices for gold also meant that Switzerland was the Republic’s largest export market in January-October, buying 28% of its exports.

The Republic’s principal exports are nonferrous metals and minerals, woolen goods and other agricultural products, electric energy, and certain engineering goods. Its imports include petroleum and natural gas, ferrous metals, chemicals, most machinery, wood and paper products, some foods, and some construction materials. Among the main exports that are classified, manufactured goods constitute the bulk of the exports with 21.6% while energy and fuels ranks the second with 11.6%. These two items are also the main sectors in import figures, manufactured goods with 57.2% and energy and fuels with 25.3%, thereby constituting almost 80% of imports for the country (see Figure 9 below).

The country’s trading volume has been seen on an increasing track in late 1990s, which came to halt and reduced to lower figures until the recent years when the trade volume peaked up to catch the similar figures almost ten years ago. This development may be seen in the following Figure 10 reflecting the trade figures in the last decade year-on-year.
Kyrgyzstan’s main trading partners are EU, Russia, Kazakhstan, Canada, Turkey, China, Iran, Afghanistan, Switzerland, Uzbekistan, UAE and the US. The shares of the Republic’s trading partners are illustrated in the following Figure 11.

Membership in Free Trade Arrangements

On April 15, 1994, CIS states (Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan) signed an agreement to establish a free trade zone. According to the agreement, imports of goods produced within the CIS having respective certificates of origin are not subject to any customs or value added taxes (VAT) in the Kyrgyz...
Republic. However, this exemption does not cover excise goods, furniture, video, television, computer equipment, or any accessories to the above electronic equipment. Russia, Belarus, Kazakhstan, the Kyrgyz Republic, and Tajikistan have also signed an agreement on customs.

In June 2004, the Kyrgyz Republic signed a Trade and Investment Framework Agreement with the US, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan, to provide a forum for addressing trade issues and enhancing trade and investment between the United States and Central Asia. The objective of the TIFA is to increase and diversify trade and investment opportunities between the United States and Central Asia. The TIFA will also provide a regular forum in which to address regional trade issues that hamper intra-regional trade and economic development and can act as impediments to investment. The TIFA creates a United States-Central Asia Council on Trade and Investment that will consider a wide range of issues that include, but are not limited to, intellectual property, labour, environmental issues, and enhancing the participation of small and medium-sized enterprises in trade and investment.
III. **LEGISLATIVE FRAMEWORK FOR FDI**  
(Including Energy Sector Investments)

One of the main directions of the economic policy pursued by the Government of the Kyrgyz Republic is the attraction of direct foreign investments.

Direct foreign investment promotes the creation of new highly technological manufactures, modernisation of a fixed capital, creation of additional workplaces, active use of available potential of qualified staff, introduction of advanced achievements in the fields of management, marketing and know-how, filling of the domestic market of high-quality goods, increase of products for export.

Projects cover the following branches of economy:

- fuel and energy complex
- mining industry
- transport and communication
- light industry
- electronics and electro-technical industry
- processing of agricultural production
- tourism

**III.1. Brief description of the contents of legislation relevant to investment**

**Constitutional provisions, status in relation to international treaties**

The Kyrgyz Republic stands for rigorous observance of norms of international law and confirms its adherence to the basic principle of international law – the principle of conscientious observance of international obligations, secured by the Constitution of the Kyrgyz Republic.

The Constitution of the Kyrgyz Republic has the supreme legal force and direct effect in the Kyrgyz Republic. Laws and other regulations are adopted on the basis of the Constitution. Inter-state treaties and norms of international law, ratified by the Kyrgyz Republic, form the constituent and direct active part of the legislation of the Kyrgyz Republic. Article 1 stipulates that only the President of the Kyrgyz Republic and the Jogorku Kenesh (the Parliament), which is elected by the people of Kyrgyzstan, shall be entitled to act on behalf of the People of the Kyrgyz Republic.

According to Article 16 of the Constitution, the Kyrgyz Republic recognises and guarantees basic human rights and freedoms in accordance with generally accepted principles and norms of international law, inter-state treaties and agreements concerning the issues of human rights.

According to Article 14 of the Constitution, foreigners and stateless persons in the Kyrgyz Republic enjoy the rights and freedoms, and bear responsibilities, of citizens on
the basis of conditions and in accordance with the procedures, stipulated by laws, state treaties and agreements.

The Constitutional Law on the territory of the Kyrgyz Republic is enforced by the supreme judicial authority protecting the Constitution – the Constitutional Court of the Kyrgyz Republic.

Following the Constitution of the Kyrgyz Republic, the Law No. 89 “On International Treaties of the Kyrgyz Republic” adopted on 21 July 1999 stipulates that international treaties constitute the legal basis of international relations of the Kyrgyz Republic and are the constituent and direct active part of the Kyrgyz legislation. This Law determines the order of conclusion, implementation, cessation, suspension and denunciation of international treaties which are practised in accordance with the universally recognised principles and norms of international law, the Constitution of the Kyrgyz Republic, as well as this Law and its provisions.

Article 8 of the Law of the Kyrgyz Republic No. 34 “On Legal Regulations in the Kyrgyz Republic” of 1 July 1996, stipulates that in the case of non-conformity of a law or any other legal acts of the Kyrgyz Republic with duly concluded international treaties with the participation of the Kyrgyz Republic, or universally recognised norms of international law, the rules established by international treaties and norms of international law shall apply.

**Free Economic Zones (FEZ):**

**FEZ laws and regulations:**

- Kyrgyz Republic Law No. 1076 on Free Economic Zones in the Kyrgyz Republic, dated December 16, 1992 (as amended by Laws No. 2 of March 15, 1996; No. 78 of September 20, 2000; No. 109 of December 12, 2001; No. 6 of January 12, 2006; and No. 36 of March 22, 2007);
- Kyrgyz Republic Law No. 66 on Investment in the KR, dated September 24, 1997;
- Free Economic Zone Regulations (for each FEZ).

**Geographic locations of Free Economic Zones**

The Bishkek FEZ was created by virtue of Ordinance No. 151-1 of Parliament (Jogorky Kenesh) of the Kyrgyz Republic, dated July 1995, within the limits of the Village of Mramornoye and the National Exhibition Centre (489 hectares).

The Karakol FEZ was established by virtue of Ordinance No. 1220-XII of the Supreme Soviet of the Republic of Kyrgyzstan, dated May 7, 1993, within the administrative limits of the Town of Karakol, Issyk Kul Region. However, Article 1 of Kyrgyz Republic Law No. 84 on Delimitation of the Karakol Free Economic Zone, dated July 6, 2004, defined the limits of the Karakol FEZ as follows: Plot 1 includes the Town of Balykchi (500 hectares); Plot 2 includes the surroundings of Tamchi Village (1,180 hectares).

The Maimak FEZ is located within the limits of Jon Tobo Station, Talas Region.
The Naryn FEZ was set up by virtue of the April 20, 1991, Ordinance of the Supreme Soviet of the Republic of Kyrgyzstan within the administrative limits of the Town of Naryn, Djumgal, Kochkor, Tyan Shan, Ak Talin, At Bashin and Suusamyr Districts.

**Registration of entities within a FEZ**

Registration of entities is the responsibility of the General Directorate of a FEZ. An authorisation to register is required from the FEZ General Director or the First Deputy General Director. The following benefits and preferences are granted to companies:

- exemption from all taxes, liabilities and charges for the entire duration of operations in a FEZ;
- exportation of goods made within a FEZ, imports to a FEZ, as well as goods intended for resending or re-exportation are exempted from customs duties;
- exports produced within a FEZ are exempted from quotas and licensing;
- summary and accelerated registration;
- easier customs formalities;
- direct access to essential infrastructures such as telecommunications, water supply, power supply and transportation.

At the same time, FEZ entities contribute to the General Directorate 1-2% of proceeds from sales of goods and services during the year in consideration of benefits granted within the FEZ.

**Rights of FEZ entities**

Irrespective of their ownership forms, FEZ entities have the following rights:

- set up joint ventures with domestic and foreign investors;
- engage in business operations under agreements, be free to choose a partner, agreement subject matter, determine obligations and any other terms and conditions of business relationships;
- engage in foreign economic operations of their own accord, enter into barter and agency transactions, and make reinvestments provided that such activities are not in conflict with the existing laws; obtain loans from offshore banks, firms or organisations; use offshore insurers to conduct all kinds of insurance transactions;
- make any investments within the FEZ not prohibited by the laws of the Kyrgyz Republic;
- pay hard currency wages and salaries to their employees from hard currency funds; make hard currency settlements within the FEZ between zone residents;
- employ foreign and Kyrgyz Republic nationals on a contractual basis;
- use land on a long-term lease basis for up to 99 years; sublet land, property, property rights and assign rights to use subject to mutual consent of the parties to the lease agreement or their assigns, as well as other property and non-property rights;
- Engage in any other operations not prohibited by the existing laws of the Kyrgyz Republic.
Investment guarantees

In accordance with the laws of the Kyrgyz Republic and rules of international law, the following rights are guaranteed in Free Economic Zones:

- legal protection of foreign investment;
- copyright protection of Kyrgyz and foreign legal entities and individuals resident in a FEZ;
- legal treatment of foreign investments at least as favourable as that applied to investments made by Kyrgyz Republic legal entities and individuals;
- non-discrimination of businesses with foreign investment versus Kyrgyz Republic business entities;
- investors operating within a FEZ are guaranteed to transfer abroad after tax foreign currency funds received as income or generated as a result of sale of all or part of their share in the charter capital of the company with foreign investment or withdrawal from, or liquidation of, the company.

The following Figure 12 depicts the main benefits for investments under the said scheme.

**Figure 12: Free Economic Zones (FEZ)**

Source: Kyrgyz Embassy in India
Establishment of enterprises

The establishment of enterprises on the territory of the Kyrgyz Republic is carried out in accordance with the “Civil Code of the Kyrgyz Republic”, the Law No. 60 “On Economic Partnerships and Associations” of 15 November 15 1996 and the Law No. 39 “On Public Registration of Legal Entities” of 12 July 1996, and other relevant legislative acts and regulations adopted by the President and the Government of the Kyrgyz Republic in accordance with these Laws.

The above-mentioned Laws do not discriminate between establishment of national and foreign companies. According to Article 3, paragraph 6 of the Law “On Economic Partnerships and Associations”, foreign states, international organisations, foreign legal persons and citizens, as well as stateless persons, may participate in economic partnerships and companies established in conformity with the present Law on an equal basis, if legislative acts do not stipulate otherwise.

A commercial organisation, with the charter capital divided into shares (contributions) or founders’ shares and the activity of which is mainly directed at making a profit, is recognised as an economic partnership or company. The assets, created by founders’ shares or their acquisition of shares, as well as produced or purchased by an economic partnership or company in the process of its activity, belong to it by right of ownership.

In accordance with the Law “On Public Registration of Legal Entities”, the nature of public registration of legal persons is declarative and it includes the verification of conformity of incorporation documents of established legal entities with the laws of the Kyrgyz Republic, the issuance of the registration certificate with the registration number, listing information on legal entities in the unified public register, etc.

Public registration of legal persons with foreign participation is carried out by the Ministry of Justice of the Kyrgyz Republic with due regard to specific conditions set out by the Law “On Foreign Investment”. According to Article 16 of the Foreign Investment Law, apart from the documents prescribed by the Law “On Public Registration of Legal Persons”, the following documents or their copies translated into the official or the Russian language certified by the notary office will have to be submitted by foreign investors to the Ministry of Justice:

- a foreign natural person – passport;
- a stateless person – any other identification document;
- a foreign legal person – an extract from the trade register, the certificate or any other document proving that the foreign participant is a legal person under the legislation of the country in which this legal person has been registered.
- Foreign investors must obtain licences for exercising certain activities in accordance with the Law “On Licensing”. According to Article 8 of this Law, foreign legal or natural persons and stateless persons receive licences on the same conditions and following the same procedures as national legal and natural persons unless otherwise provided by the legislation. Kyrgyzstan recognises licences obtained by investors in other countries provided that the respective intergovernmental agreements have been concluded. Article 9 of this Law determines a list of entrepreneurial activities which are subject to obligatory licensing.
Business registration

State Registration

State registration involves verifying compliance of charter documents (by-laws and articles of incorporation) with Kyrgyz laws and the issuance of a registration certificate (‘svidetelstvo’) containing the registration number as well as entry of data into the Unified State Register of Legal Entities.

Depending on the type of company, a number of documents and the application for registration must be filed with the Ministry of Justice of the Kyrgyz Republic by a representative or the founder of the company. If one of the founders of the company is a foreign legal entity also a legalised extract from a register, certifying that the founder is a legal entity in accordance with laws of the foreign country, must be provided (legalisation is not required for CIS legal entities.) A foreign citizen acting as a founder must additionally provide a photocopy of his/her passport or other identification document (with a valid visa). All documents filed must be provided with a notarised Kyrgyz or Russian translation.

The time frame for registration of legal entities with the Ministry of Justice is stipulated to be 10 days from the moment of application and is free of charge.

Upon registration with the Ministry of Justice, the statistical registration card must be obtained from the National Statistical Committee. The time frame for obtaining the card is stipulated to be 2 days.

Tax registration

Each enterprise and private entrepreneur must be registered with the State Tax Inspectorate or one of its regional branches, depending on the principal place of business. In order to register with the tax inspectorate, the following documents are to be filed with the tax inspectorate:

- for legal entities: copies of the foundation documents, a copy of the state registration certificate and other relevant documents;
- for physical persons: statistical registration certificate, passport and other relevant documents.

The taxpayer fills out the state tax registration form in triplicate. Upon registration the taxpayer receives a unique identification number that is to be entered on all financial, accounting, and customs documents (that is, payment orders). If the taxpayer is registered for the first time, the tax inspectorate provides him with explanatory booklets listing all taxes, payments and taxpayer’s responsibilities.

Registration of Companies in Free Economic Zones

There is a special procedure for registration in Free Economic Zones (FEZs). The enterprise is to be registered with the FEZ Head Office.
Registration of individual entrepreneurs

The national statistics body and its regional branches register individual entrepreneurs depending on place of residence. Registration is made on the basis of an application for registration and a passport; normally there is no fee for this registration. Upon registration the statistics body issues a registration certificate with a unique identification number.

Registration of a branch or representative office

Registration of a branch or representative office is similar to that for legal entities. However, there is a requirement for additional documents. The head office must issue a document defining the status of the branch or representative office and provide copies of registered foundation documents of the head office. A foreign company or person must also provide an extract from the commercial register, or other document, certifying that the company establishing the branch or representative office in the Kyrgyz Republic is a legal entity according to the laws of the country of its registration, as well as a bank statement verifying its solvency. All documents must be provided with a notarised Kyrgyz or Russian translation.

Re-registration

A legal entity must be re-registered in the following cases:

- changes of the size of charter capital (except for banks, in cases of increase of the charter capital in accordance with the National Bank requirements),
- changes of the main type of activity, the name or competence of the bodies stipulated in the foundation documents,
- establishment or liquidation of an affiliate or representative office,
- changes in the number of participants of a business partnership or closed joint stock company,
- adoption of a decision by a court or other authorised body on re-registration of the legal entity,
- reorganisation of the legal entity.

Entrepreneurship and corporate laws

The Law “On Economic Partnerships and Associations” stipulates that economic partnerships and companies may be created in the form of a general partnership, commandite, limited partnership, additional responsibility partnership, which, in their turn, may establish branches, subsidiaries and, representative offices in the territory of KR and outside it.

Banks, insurance companies, investment companies and funds, other similar organisations, which activities are based on the attraction of financial resources and other property of persons who are not the founders of a partnership or a company, are established and operate in the form of economic partnerships or companies established with respect to such organisations in special legislative acts.
Foreign states, international organisations, foreign persons as well as stateless persons participate in economic partnerships and companies created under the Law “On Economic Partnerships and Associations” on common grounds, unless determined otherwise by legislative acts. Business activities can be organised in the following forms:

- Individual Entrepreneur
- Partnership
- Limited Partnership
- Limited Liability Company
- Additional Liability Company
- Joint-Stock Company (Open and Closed)
- Representative Office
- Branch Office

A general partnership is a partnership where the founders, in the case of insufficiency of the general partnership’s assets, have the unlimited personal liability in respect of all its obligations.

A commandite is a partnership, which, apart from one or several founders bearing joint personal liability for the partnership obligations (general partners), includes one or several founders whose responsibilities are limited by the size of their contribution in the authorised capital of a partnership (shareholders) and who do not take part in exercising the partnership’s business activity.

A limited partnership is an economic company where the founders are not liable for its obligations, and their liability for losses in connection with the company’s activities, is limited by the amount of their contributions. The founders of a limited partnership, who have not made their contributions into the authorised capital in full, bear joint (material property) liability for company’s obligations to the extent of the unpaid part of share of each founder.

A joint-stock company is a company in which the authorised capital is divided into a certain number of shares equalling to the nominal value. The founders of the company (shareholders) are not liable for its obligations and bear the risk of losses connected with the company’s activity to the extent of their interest in the company’s capital.

Economic partnerships and associations are considered established legal entities from the date of their public registration.

The Law No. 92 “On Investment Funds” of 26 July 1999 provides for the special regime of the establishment and operation of investment funds existing in the form of joint-stock investment funds or trust investment funds.

A joint-stock investment fund is a joint-stock open-type company which:

- attracts funds of natural and legal persons by means of the public issue of shares; and
- invests the acquired financial resources into investment assets.

A trust investment fund is established on the basis of trusting property administration agreement without establishment of the legal person. Trust investment fund is
considered established from the date of registration of the emission of the shares prospects and the rules of the trust investment fund with the National Commission for Securities Market.

Trust investment funds are subdivided into:

- investment funds with an obligation to re-purchase their issued investment shares from shareholders upon their request;
- interval investment funds providing their shareholders with the right to request from the managing company to pay their shares within the predetermined time but not more than once a year.

The management of the trust investment fund and persons investing money in this trust investment fund (investors, shareholders) conclude an agreement on property transfer to the trust management through acceptance of conditions of public offering on property transfer to the trust management. Stockholders are responsible for the management’s obligations of the trust investment fund only within the limit of their investment shares.

An investment share is a registered securities the owner of which has the right to return it to the investment fund in exchange for money in the amount determined as ratio of cost of net assets to total number of investment shares. An investment share has no nominal value. Interest and dividends are not applicable for investment shares. Investment shares provide equal rights for every owner and they are issued in a non-documentary form.

There are some additional forms of enterprises such as Commercial Cooperatives and Credit Unions.

In order to start operating in the country, a legal entity must be registered with three governmental bodies: the Ministry of Justice of the Kyrgyz Republic (there are regional offices of the Ministry in each oblast of the Republic), the National Statistics Committee (enters state registration data into the United Single State Register of Statistics) and the State Tax Inspectorate. However, for individual entrepreneurs registration involves only registration with the statistical committee and the tax inspectorate.

Foreign investors have the same legal status as Kyrgyz investors and can operate as wholly-owned foreign businesses in the Kyrgyz Republic, as partnerships and companies with Kyrgyz partners or other foreign partners. Foreigners can buy stock and other securities of Kyrgyz companies and participate in privatisation programs.

**Foreign investment legislation, including definitions and forms of investment**

The Law No. 66 “On Foreign Investment in the Kyrgyz Republic” of 24 September 1997 establishes the legal, economic and organisational basis for the attraction of foreign investments and the development of a favourable investment climate. According to this Law (Article 1), investments are tangible and intangible assets, such as:

- financial resources;
- movable and immovable property;
- rights of property (mortgage, right of retention of property, pledges and others);
- shares and other forms of participation in a legal entity;
- obligations and other forms of liability;
- rights (claims) for the amounts of money, goods, services and any other claims resulting from the implementation of treaties;
- intellectual property rights, including the commercial secret (goodwill), copyright, patents, trademarks, registered industrial designs, technological processes, names of firms and know-how;
- any right conferred by the state authorities to exercise activity on the basis of a license or in any other form;
- concessions granted on the basis of a law, including concessions for exploration, extraction or exploitation of natural resources;
- profits gained and not re-invested on the territory of the Kyrgyz Republic.

A form in which assets are invested, or a change of this form, does not affect the nature of an investment.

Foreign investments are investments of foreign investors in the form of contributions into commercial companies on the territory of the Kyrgyz Republic with the aim to make a profit.

A foreign investor is defined as:

1) any natural person being:
   - a foreign citizen;
   - a citizen of the Kyrgyz Republic with a permanent domicile in a foreign country on condition that he has been registered for performing an economic activity in the country of his permanent residence;
   - a stateless person permanently residing abroad.

2) any legal entity:
   - established and registered in accordance with the legislation of a foreign country;
   - established in accordance with the legislation of the Kyrgyz Republic and having its legal address or the main place of activity on the territory of a foreign country;
   - with foreign participation, i.e. established in conformity with the legislation of the Kyrgyz Republic,
     a) which entirely belongs to one or several foreign natural or legal persons; or
     b) which is controlled or managed by one or several foreign natural or legal persons by means of: a written contract; the majority of voting rights; the right to appoint the majority of members of executive or supervising bodies; or
     c) where at least 20% of the authorised capital is in the ownership of foreign citizens, stateless persons permanently residing abroad, or legal persons referred to above;

3) a foreign country, or its administrative/territorial unit, performing an economic activity;
4) a legal entity, established on the basis of an inter-state treaty or agreement.
The Law “On Concessions and Foreign Concession-based Enterprises of 6 March 1992 (as amended by the Law of the Kyrgyz Republic dated March 8, 2003) regulates the activity of national and foreign enterprises established on a basis of the granted concession. According to Article 1, a concession is a permission to carry out certain types of entrepreneurial activities, which involve leasing of a property, land and subsoil resources, given to a foreign investor by the Government of the Kyrgyz Republic. Therefore, land, subsoil resources, property, as well as specific forms of economic activities within certain areas may be subject to concession agreements.

According to Article 10, the decision regarding concession shall be adopted by the Government on the basis of competitive bidding. Concession holders shall enjoy the right to conclude a concession agreement with the authorities according to the procedure and on terms spelled out in this Law. Draft concession agreements, prior to the state registration, shall be subject to a comprehensive expert examination. The Government may at any time prior to concluding an agreement revoke its decision in case of any misrepresentation or counterfactual information provided by the applicants, or if the concession agreement would introduce provisions which would contradict the interests of the Kyrgyz Republic.

The Government regulation of the concession activities is carried out according to the provisions of the Kyrgyz laws. Should an international treaty establish rules other than those contained in the legislation of the Kyrgyz Republic, the provisions of the international treaty shall apply.

A concession agreement can be concluded for a term of five to fifty years. According to Article 14 it is possible to extend the term of concession based on mutual consent of the parties, as well as to change the conditions set out in a concession agreement.

A concession holder shall enjoy all the guarantees given by this Law. An intervention of state authorities in the economic activities of a concession holder shall not be allowed, save instances of threat to life, health of population or environment, or if a concession holder would not comply with the requirements to take necessary measures in order to remedy such a threat. In case of unilateral termination of a concession agreement, the party involved shall compensate losses to the other party (including projected profit).

**Legislation on land/immovable property/real estate acquisition by foreigners (natural persons and legal persons)**

At present, the Land Code No. 45 of the Kyrgyz Republic of 2 June 1999 regulates the basic rights and principles with relation to land. According to Article 6, the right to land ownership is a basic civil right and may be subject to sale, donation, exchange, mortgage and other transactions; the rights to land may also be transferred in compliance with the procedure of universal succession subject to limitations established by this Code.

According to paragraph 1, point 1, Article 35 of the Land Code, an owner of a land plot or a land user may transfer the his rights to a land plot fully or partially to other person or legal entity without any permission of state agencies, subject to limitations established in paragraph 2 concerning the agricultural land or other legislation...
imposing conditions on acquisition or allocation of a land plot (no foreign persons are allowed to own the agricultural land).

However, the land plots within the boundaries of settlements (cities, villages, rural settlements) may be provided to foreign persons or foreign legal entities on a basis of the fixed-term (temporary) use or may be transferred into ownership in the case of mortgage financing of housing construction in accordance with the Mortgage Law. Land plots outside settlements (except agricultural land), may be allocated to foreign persons on the basis of the fixed-term (temporary) use approved by the Government of the Kyrgyz Republic. In other cases, lands outside settlements shall be allocated, transferred, assigned to foreign persons in the procedure of universal succession for the fixed-term (temporary) use.

According to Article 7 of the Land Code, land can be given for permanent and temporary use, including the long-term lease, for the period up to 50 years.

Alienation (sale, exchange, gift) of dwelling houses and apartments of the residential sector of the foreign legal or natural persons in Kyrgyzstan is carried out in accordance with the Provision on the Commission on Alienation of Dwelling Houses and Apartments of the Residential Sector to Foreign Legal and Natural Persons on the territory of the Kyrgyz Republic approved by the Resolution No. 82 of the Government of the Kyrgyz Republic on 15 February 1999. Permits for the purchase of dwellings by foreign legal or natural persons are issued by the Ministry of Justice. The Kyrgyz citizens may purchase dwellings on the basis of civil legislation and without any permits by public authorities.

In accordance with the Kyrgyz Republic Law No. 4 on Farmland Management, dated January 11, 2004, title of ownership to farmlands in the Kyrgyz Republic shall only be held by the State and Kyrgyz Republic nationals permanently residing in rural areas for at least two (2) years, as well as a farm cooperative of Kyrgyz Republic nationals permanently residing in rural areas for at least two (2) years. No farmland shall be allocated to, or privatised by:

- individuals, legal entities or states;
- stateless persons residing within the Kyrgyz Republic;
- legal entities of the Kyrgyz Republic, joint ventures except for farm cooperatives formed by Kyrgyz Republic nationals;
- spouses where one of them is a foreign national or stateless person.

Government registration of title to, and exchange, sale/purchase, encumbrance, and succession of farmlands shall be by an authorised body of the Kyrgyz Republic Government. The procedure and conditions for sale of government-owned farmlands (except for those held by the Farmland and Pasture Reallocation Fund) shall be governed by the Farmland Sale/Purchase Regulation approved by Kyrgyz Republic Government Decree No. 427 of August 13, 2001. The Regulation specifies that sale of government-owned farmlands (except for those held by the Farmland Reallocation Fund (FRF), pastures and water resources), as well as of lands suitable for farming for the purpose of privatisation shall be subject to determination by a local commission based on buyer applications or on the initiative of local self-government authorities.
Government farmlands (except for those held by the FRF and pastures) are sold for privatisation at public auctions. Private ownership of land has been in existence since the adoption of the Constitution, May 5, 1993.

**Competition legislation – general and specific for energy industries; enforcement of competition rules; existence of competition or anti-monopoly bodies**

The state legally ensures freedom of competition between entrepreneurs, protects consumers from manifestations of unfair competition and monopoly behaviour in all areas of economic activities.

The Law “On Restrictions of Monopolistic Activities, Development and Protection of Competition” of 15 April 1994 is the main law setting up the organisational and legal principles for development of competition and the measures for prevention, restriction and suppression of monopolistic activities and unfair competition.

The Law “On Natural and Authorised Monopolies” of 8 October 1999 regulates the enterprises with the monopoly or dominant position at the market. The antimonopoly body and public regulatory bodies apply various ways of their regulation, such as price/tariff ceilings, determination of the consumers’ structure, fixing the level of profitability, public regulation, etc. This Law is in particular applicable to the power sector which, at present, is a monopoly sector of the national economy.

The antimonopoly body has created the State register of natural and authorised monopolies which includes certain enterprises from the energy sector. The State Registry of natural monopolies for 2007 which are subject to regulation by the State Department on Regulating the Energy Sector under the Ministry of industry, energy and fuel resources includes:

<table>
<thead>
<tr>
<th>Natural monopolies</th>
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<tbody>
<tr>
<td>1. OPEN JSC «Power stations»</td>
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<td>2. OPEN JSC «Kyrgyzstan’s National Electric Grid»</td>
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<td>3. OPEN JSC «Severelectro»</td>
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<td>4. OPEN JSC «Oshelectro»</td>
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<td>5. OPEN JSC «Vostokelectro»</td>
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<td>6. OPEN JSC «Jalalabatelectro»</td>
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<td>7. OPEN JSC «Bishkekteploset’ »</td>
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<td>8. LLC «Kyrgyzenergoresurs»</td>
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<td>9. CLOSED JSC «Transelectro»</td>
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<td>10. JSC «Kyrgyz Chemical-Metallurgical Plant»</td>
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<td>11. General Directorate of «Bishkek» FEZ</td>
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<td>12. LLC «Chui Glass»</td>
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<td>13. JSC «Uchkun»</td>
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<tr>
<td>14. LLC «Korund hydrotok»</td>
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</table>

10 Entities included in this State Registry are regulated under the Law On Natural and Permitted Monopolies.
A number of other laws are also relevant for the protection of competition in the energy sector, such as the Law “On Consumer Protection” of 10 December 1997, the Law “On Advertising” of 24 December 1998 or the Law No. 27 “On Commercial Secrets” of 30 March 1998.

The performance of legal or natural persons which limits competition entails administrative and criminal liability in accordance with the Administrative Liability Code (Articles 311-326) and the Civil Code (Article 156-2).

Public control over the development of competition and the restriction of monopolistic activities is carried out by the state antitrust authority – the State Agency on Antimonopoly Policies and Development of Competition established by the KR Law No. 12 of 6 February 2007 (the Decree No. 290 of the President of the Kyrgyz Republic of 1 October 1998 became invalidated by the Decree No. 111 of the President of the Kyrgyz Republic of 30 March 2001). The Commission performs its functions under the direct authority of the President of the Kyrgyz Republic.

National Agency of the Kyrgyz Republic for Anti-Monopoly Policy and Development of Competition (the ‘National Agency’, or ‘NAAPDC’) is the state anti-monopoly body that implements the uniform state policy in the field of protection and development of
the competition, state regulation and control in the fields of activities of subjects of natural and allowed monopolies related to prevention, restriction and restraint of monopolistic activity and unfair competition; it regulates the fuel and energy complex.

In its activities, the National Agency is governed by the Constitution and laws of the Kyrgyz Republic, and also by other regulatory legal acts of the Kyrgyz Republic, international treaties that came into effect in the procedure stipulated in the legislation of the Kyrgyz Republic, and also by the current Regulations.

The National Agency coordinates activities of the executive power bodies, local self-governing bodies and public associations if such activity is related to anti-monopoly policy, development and protection of competition, protection of consumer rights and advertising.

The main objectives of the National Agency are:

- Implementation of the state policy in the field of anti-monopoly regulation, fuel and energy complex, protection of consumer rights, advertising;
- Promotion of market relations based on the anti-monopoly regulation, de-monopolisation of monopolistic branches of economy, protection and development of competition, creation of favourable conditions for development of entrepreneurship.

In accordance with the above-mentioned objectives, the National Agency performs the following functions:

- Elaboration and implementation of the state policy in the field of anti-monopoly regulation, fuel and energy complex, protection of consumer rights and advertising;
- Exercise of state control over compliance with anti-monopoly legislation, legislation in the field of the fuel and energy complex, on protection of consumer rights, on advertising and other normative legal acts of the Kyrgyz Republic related to issues that are in its competence;
- Elaboration of normative legal acts on improvement of the anti-monopoly legislation, legislation in the field of the fuel and energy complex, on protection of consumer rights, on advertising, pricing policy and practice of their application;
- Ensuring balance between interests of consumers (subscribers) and subjects of natural and allowed monopolies by means of state regulation and control over their activities providing for availability of consumer goods, works, services sold, purchased and provided by them to consumers (subscribers);
- Elaboration of recommendations on application of relevant methods and measures of tariff and non-tariff regulation (including those related to changes in the custom duty rates) taking into account the competitive environment situation in the domestic market;
- State regulation and control in the fields of activities of subjects of natural, allowed and state monopolies in accordance with the set procedure;
- State regulation of prices (tariffs) for services (works) provided by executive power bodies and local self-governing bodies and their structural units, organisations and institutions in accordance with the set procedure.
• Elaboration of the pricing and tariff setting mechanism for goods (works, services) in the regulated spheres:
  - Elaboration of the mechanisms for regulation of export and import of electricity;
  - Support in development of new technologies, know-how in the energy field in order to develop fundamental and applied sciences in the energy field, development of production, energy supply, renewable energy sources;
  - Issuance of licenses for generation, transmission, distribution and sale of electricity, heat and natural gas, processing of oil and natural gas, construction of power plants, substations and power transmission lines, export of electricity;
  - Coordination of standards and normative documents related to provision of services to consumers of energy resources and improvement of their quality, ensuring their implementation in accordance with the legislation of the Kyrgyz Republic;
  - Approval of tariffs for electricity, heat, natural gas;

• Elaboration of model contracts for energy supply that determine the rights and obligations of supply organisations and consumers, and also contracts between electricity and gas market participants according to the procedure specified in the legislation of the Kyrgyz Republic;

• Handling issues of pricing for goods, works and services in all branches of economy with respect to enterprises that are included in the list of natural and allowed monopolies, including those in such sectors as communications, alcohol, etc.;

• Appointment of the registrar for energy market contracts, identifying his role, authorities and duties;

• Coordination, together with other state bodies, of technical assistance received in the energy sector of the republic;

• Control over execution of terms of agreements between subjects of natural monopolies and consumers of their services;

• Control over subsidies between various consumer classes and groups, and elaboration of proposals on their termination;

• Control over compliance with technical and economic indicators and set target indicators of quasi-fiscal deficit (QFD) in the energy sector;

• Handling complaints, proposals, applications from legal entities and individuals concerning issues that in the competence of the National Agency;

• Participation in the work of the tender commission in the course of tenders for purchase of goods (works, services) of subjects of natural, allowed and state monopolies, executive power bodies and local self-governing bodies;

• Participation, according to the set procedure, in conclusion of interstate agreements, elaboration and implementation of international projects and programs, and implementation of cooperation with state bodies and public organisations of foreign states and international organisations on issues that are in its competence.

The National Agency has the following rights:

• To issue to executive power bodies and local self-governing bodies, physical persons and legal entities, irrespective of forms of ownership, bidding instructions on
elimination of violations related to issues that are in the competence of the National Agency, and elimination of their consequences;

- To make decisions (issue decrees) on imposing fines and economic sanctions on executive power bodies and local self-governing bodies and their officials, on economic entities, organisations and institutions and their managers, on physical persons for violations of the legislation of the Kyrgyz Republic according to the set procedure;

- To send to the Government of the Kyrgyz Republic proposals on improvement of anti-monopoly legislation, legislation in the field of the fuel and energy complex, laws on protection of consumer rights, on advertising, pricing policy and practice of its application;

- To give opinions on draft normative legal acts related to functioning of markets and development of competition, fuel and energy complex, protection of consumer rights, advertising, pricing policy;

- According to the set procedure and in the framework of its competence, to elaborate and adopt normative legal acts on the issues related to anti-monopoly legislation in the field of the fuel and energy complex, legislation on protection of consumer rights, on advertising, pricing policy;

- To make proposals to the Government of the Kyrgyz Republic and relevant executive power bodies on the list of the types of activities subject to be licensed, prohibited, on suspension of export and import transactions of economic entities if the latter violate the anti-monopoly legislation; proposals on simplification of registration and permission procedures;

- To determine and apply in accordance with the legislation methods of regulation of activities of subjects of natural and allowed monopolies;

- To exercise control of licensee’s compliance with the license terms in accordance with the Law of the Kyrgyz Republic «On Licensing» and other normative regulatory acts of the Kyrgyz Republic;

- To exercise state control over prices (tariffs) for goods and services of natural allowed and state monopolies;

- To file petitions to judicial bodies without paying the state duty and to take part in court proceedings;

- In the set procedure to represent the Kyrgyz Republic in international organisations; and

- To exercise other powers in accordance with the legislation of the Kyrgyz Republic.

In order to ensure execution of its functions and performance of its objectives, within its competence, the National Agency has free access to all documents of the executive power bodies, of economic entities, irrespective of the forms of ownership in accordance with the legislation of the Kyrgyz Republic.

Decisions of the National Agency made within its competence in the form of decrees, orders and instructions are binding for the executive power bodies, local self-governing bodies and entities irrespective of the forms of ownership.

The Law No. 56 “On Energy” of 30 October 1996 also contains provisions for setting up the basis for further liberalisation of the energy market, for non-discriminatory
participation of newly established legal or natural persons in the market operations, for the protection of producers’ and consumers’ interests, etc. Based on the relevant provisions of this Law, the State Energy Agency has been established under the Government of the Kyrgyz Republic which fulfils the following functions:

- Executes the policy of demonopolisation of producers, promotes the development of competitiveness, ensures equal opportunities and conditions of access to power transmission lines and gas supply systems for all competitors;
- Issues licences for the production, transmission, distribution and sales of electricity, heat and natural gas, oil refining, construction of power plants and power transmission lines in conformity with the legislation of the Kyrgyz Republic;
- Ensures the protection of the consumers’ interests, sets up mechanisms to review clients’ complaints and resolves disputes between consumers and energy service enterprises, as well as between enterprises, and takes appropriate decisions;
- Co-ordinates, together with other state bodies, the programme of technical assistance and attracts investments in the energy sector;
- Approves and sets tariffs for electricity, heat, natural gas and hot-water supply;
- Carries out other activities in accordance with the legislation of the Kyrgyz Republic.

State regulator

State regulation of the electricity sector shall ensure electricity and heat supplies at economic, socially acceptable and non-discriminatory prices within the Kyrgyz Republic, as well as control over reliable, safe and uninterruptible electricity and heat generation and consumption (Kyrgyz Republic Law on the Electricity Sector).


The Antimonopoly and Competition Agency of the Kyrgyz Republic was a government antimonopoly authority implementing a uniform government policy designed for the protection and promotion of competition, government regulation and control in the areas pursued by natural and permitted monopolies with a view to prevent, restrict and suppress monopolistic activities and unfair competition.

Since March 2007, the electricity sector has been regulated by a new Ministry of Industry, Energy and Fuel Resources (the “Industry and Energy Ministry”) of the Kyrgyz Republic. Within the Ministry of Industry, Energy and Fuel Resources, there is a dedicated department in charge of energy and fuel regulation, the Government Energy and Fuel Regulation Department of the Kyrgyz Republic.

The Industry and Energy Ministry is a dedicated executive authority to exercise control and supervision over reliable, safe and uninterruptible operations of power equipment
in generation, transmission, distribution and consumption of electricity, heat and natural gas by energy companies and all consumers irrespective of their ownership forms, as well as to ensure energy security.

The Industry and Energy Ministry is authorised to do the following:

- issue licenses for generation, transmission, distribution and sales of electricity, heat and natural gas, crude oil and natural gas procession, construction of power plants, substations and power supply lines, as well as electricity imports/exports;
- approve electricity, heat and natural gas prices;
- endorse standards and regulatory documents for the provision and improvement of services to energy consumers and ensure that these are introduced in accordance with the laws of the Kyrgyz Republic;
- develop model contracts for power supply governing the rights and obligations of distributors and consumers, as well as contracts between electricity and gas market players in accordance with the laws of the Kyrgyz Republic;
- in cooperation with other government authorities, coordinate the technical aid received by the energy sector of the Republic;
- exercise control over quasi-fiscal technical and economic performance and targets in the energy sector;
- participate, in due course of law, in entering into interstate agreements, in developing and implementing international projects and programmes, as well as in cooperation with government authorities and non-governmental organisations of foreign nations and international organisations in matters falling under its jurisdiction;
- involve in international energy and fuel cooperation with the Economic Cooperation Organisation (ECO), the CIS Electric Power Council, the EurAsEC Energy Policy Council, the European Energy Charter, the Energy Regulators Regional Association (ERRA), the National Association of Regulatory Utility Commissioners (NARUC), the US Agency for International Development (USAID), the Washington Utilities and Transportation Commission (WUTC) and others.

Unbundling of grid operations, generation and supplies

Unbundling of joint stock companies into generation, transmission and distribution entities is based on their individual operational specifics, being reflected in both reporting and governance.

Pricing

Prices for electricity supplied by commercial entities irrespective of their organisational or legal ownership forms are subject to government regulation. Electricity prices are approved they the Ministry for Industry, Energy and Fuel Resources.

Electricity sales, transmission and distribution tariffs are set by the Ministry for Industry, Energy and Fuel Resources in accordance with the laws of the Kyrgyz Republic and the regulation approved by the Kyrgyz Republic Government.
In developing and approving prices, the Ministry for Industry, Energy and Fuel Resources is guided by the following principles:

- prices shall reflect the full cost of electricity generation, transmission and distribution, including operations and maintenance expenses, recovery of capital expenditures, investment and repayment interest rate;
- a price change shall not cause unexpected economic difficulty to producers or consumers;
- discrimination in terms of service and tariffs, quality of service inclusive, shall be prohibited;
- all same group consumers with the same consumption characteristics serviced by the same distributor shall get equal tariffs and service;
- each energy consumer group tariffs shall be fully reflective of the cost of service;
- cross-subsidies between consumer groups shall be prohibited;
- Tariffs shall be set such that they reflect the difference in the cost of service between seasons and various service types and qualities where the consumer has a choice.

International power transmission

Cross-border export/import tariffs are beyond the scope of the Government Energy and Fuel Regulation Department of the Ministry for Industry, Energy and Fuel Resources of the Kyrgyz Republic and are set by agreements based on intergovernmental protocols usually entered into for the vegetation season or may be negotiated between business entities of the countries when outside of such season.

Corporate taxation

The basis of the Kyrgyz tax system is formed by a number of legal regulations, the most important one of which being the Tax Code, which has been in force from 1 July 1996. It is a comprehensive law dealing with taxes in general, their administration and obligations of taxpayers on the territory of the Republic.

According to the Article 116 of the Tax Code, Value Added Tax is applied to all taxable goods produced in the territory of the Kyrgyz Republic, including the imported products. The VAT rate is 20% and applies to all products, including from the import, except for the excise tax and goods which are subject to VAT zero rate. The currently applicable legislation specifies the list of items which are subject to VAT zero rate and also the list of products, works and services which are exempted from VAT.

Income tax paid by the natural persons is uniform and levied on the whole territory of Kyrgyzstan. The tax payer pays income tax on all income received in Kyrgyzstan from any legal and/or natural person.

The natural resource tax is determined as a contribution for the development and reproduction of natural resources and raw materials. The payers of this tax are all subjects of entrepreneurial activities irrespective of forms of ownership, including foreign ones, which are exploiting the subsoil of the country. The tax creates part of the state budget. The rates are set in percentage of the value of produced production by the subsoil users and dependent on the type of mineral resource (coal, oil, natural gas, gold, etc.).
The special rules concerning taxation of foreign investors and the entities undertaking in the Free Economic Zones are regulated by the relevant subordinate laws.

According to the Law “On Foreign Investments” of 24 September 1997, taxation of foreign investors and foreign investments is carried out in accordance with the tax legislation of Kyrgyzstan which is equally applicable to nationals and foreigners. However, foreign investors who had been registered in Kyrgyzstan before this Law entered into force, enjoy certain privileges, specified in part one of Article 20 and Article 23 of the older law "On Foreign Investments” of 28 June 1991, until the end of the validity term referred to therein.

Foreign investors must keep accounting records and accounts following the applicable rules of the Kyrgyz Republic, and submit accounts and information to tax authorities, statistical and other bodies in conformity with the established order.

Foreign investors are obliged to pay obligatory contributions for their employees to the Social Fund and other non-budgetary target financial funds. Foreign investors and employees are exempt from obligatory payments to the Social Fund and other funds of the Kyrgyz Republic for the amount of contributions paid to the corresponding funds in a foreign state.

The Kyrgyz Government has rewritten its tax code to make the tax system more investor and business friendly, while increasing collection efficiency. Starting in January 2006, the income tax rate fell from 20% to 10% and the profit tax decreased from 20% to 10%. According to the new regulation, farmers are not obliged to pay VAT. The revenue threshold for business being subject to VAT increased from 500,000 soms to 2,500,000 soms.11

Furthermore, entities registered in the Free Economic Zones in accordance with the established order are exempt from all taxes, duties and charges for the period of their activity therein. For the privileges granted, entities undertaking in the Free Economic Zones effectuate annual payments, calculated on the basis of proceeds from sales of goods and services, to the FEZ General Directorate of the Free Economic Zone.

**Legislation regulating conditions for entry, stay and work of foreign natural persons generally and in relation to investments; definitions, forms and differences in residence status**

- The conditions of entry into, and departure from, the Kyrgyz Republic, stay and work of foreign natural persons are regulated by the Law “On the Legal Status of Foreign Citizens in the Kyrgyz Republic” of 14 December 1993 and the Law No. 1299-XII “On Stay of Foreign Citizens in the Kyrgyz Republic” of 14 December 1993 and by the following secondary regulations:
  - the Decree of the President of the Kyrgyz Republic “On Measures to Liberalise Visa Regime for Foreign Citizens to the Kyrgyz Republic Abroad” of 2 August 1999;
  - Instructions “On the Procedure of Official Registration and Delivery of Visas of the Kyrgyz Republic” approved by the Resolution No. 735 of the Government of the Kyrgyz Republic on 31 December 1999;

11 Source: American Chamber of Commerce (AMCHAM).
• Foreign citizens may be employed by foreign investors and be members of administrative bodies of legal entities with foreign participation.

According to the Kyrgyz legislation, the Kyrgyz Republic, through its authorised public bodies, facilitates entry and stay of foreign citizens in connection with their activities related to making of foreign investments for the period of their work in Kyrgyzstan.

Labour relations between foreign investors and their employees who are not citizens of the Kyrgyz Republic are regulated by laws, specified in their labour contracts. The labour contracts can not set up standards below the obligatory requirements prescribed by the Labour Code. In case there are no such labour contracts, foreign citizens working at enterprises situated on the territory of the Kyrgyz Republic are covered by labour laws and other legal acts of the Kyrgyz Republic.

Foreign exchange and securities laws/regulations; restrictions on foreign exchange transfers applicable to nationals and foreigners; regulations on transfers of returns in kind

The Law “On Securities Market” of 21 July 1998 regulates the issuance and circulation of securities irrespective of type of issuers, implementation of activities of participants at the securities market and the interrelations occurring in the process of the state regulation of the securities market. The securities market in the Kyrgyz Republic consists of:

• issued securities and other documents acknowledged as securities in compliance with the legislation or with the procedures established by law;
• derivative securities;
• securities of foreign issuers admitted to circulation in the Kyrgyz Republic by the National Commission, in accordance with procedures established by legislation.
• Securities issued by foreign issuers are admitted for circulation or primary distribution on securities market in the Kyrgyz Republic after registration of their issuance with the National Commission.

The National Commission on Securities Market under the President of the Kyrgyz Republic is the central body of the state management which carries out a uniform state policy in the securities market and implements regulation and control over the activities of securities issuers and the professional securities market participants.

The following professional activities may be carried out in the securities market:

• brokerage; dealing; trust management of securities; clearing; depository activities; investment funds’ activities; investment advisors’ activities; maintenance of securities holders’ registries; organisation of trading in the securities market.
• Only the stock exchange, which is a non-profit organisation, is recognised as an organiser of securities trading on the market.
Securities may be issued in one of the following forms:

- registered securities of materialised form (materialised registered securities);
- registered securities of dematerialised form (dematerialised registered securities);
- bearer materialised securities.

The Law "On the operations in foreign currency" (Chapter 2) deals with transfer and exchange of currencies. Article 4 of this Chapter specifies that transfer of foreign currency from and to abroad shall not be restricted, and further that the import and the export of currency shall not be subject to any restrictions provided that they are declared in points of customs control. Also, according to Article 5, exchange of national and foreign currency is guaranteed and that the operations on exchange of national and foreign currency shall not be restricted. Article 9 provides that residents and non-residents shall have the right to purchase and sell foreign currency without restrictions and unjustified delays in the authorised banks and exchange bureaus.

Therefore the Law regulates all activities in relation to carrying out currency transactions; it sets up market mechanism of currency exchange, declares freedom of transfers abroad and foreign remittance of currency and securities in foreign currency. According to Article 13 of that Law, there are no limitations for the purpose of implementing current payments, current receipts and cross-border capital transactions.

The Bank of Kyrgyzstan has the right to limit money transfers in cases resulting from the implementation of international obligations by the Kyrgyz Republic as specified in the UN Charter.

According to Article 8 of the Law “On Foreign Investment”, currency transactions are executed by foreign investors in conformity with the Law “On Currency Transactions” and other legislation on currency regulation. In respect of all payments pertaining to making foreign investments in the Kyrgyz Republic, foreign investors enjoy the right to freely convert the national currency into any other currency. Foreign investors also enjoy the right to freely dispose of the national currency which they dispose.

Foreign investors enjoy the right to freely, and according to their wish, dispose of their investments and the profits gained from the investments for any purposes which are not prohibited by the legislation of the Kyrgyz Republic.

**Legislative basis regulating compensation for losses and expropriation; procedures and forms for granting compensation and evaluation methods for expropriation payments; recourse or appeal procedures**

The safeguard against expropriation of foreign investments is Article 5 of the Law “On Foreign Investment”, according to which foreign investments are not subject to expropriation (nationalisation, requisition or any other equivalent measures, including any iniquity by the authorised state bodies of the Kyrgyz Republic, which may result in the forced confiscation of a foreign investor’s assets or deprive him of the possibility to enjoy the results of the investment), save the instances when such expropriation is carried out in the supreme public interest, on a non-discriminatory basis, with the observance of legal procedures under due process of law, and is accompanied by the payment of prompt, adequate and effective compensation.
The compensation shall amount to the fair market value of the expropriated investment, or the part of such an investment, at the time immediately before the decision on expropriation was taken.

The compensation should be realisable and shall be paid in freely convertible currency. The compensation shall also include interest at a rate corresponding to the long-term credit interest rate applied by the National Bank of the Kyrgyz Republic, calculated for the period between the date of expropriation and the date of payment of the compensation.

The appropriate legal procedure envisages the right of a foreign investor to the prompt review of his case in case of a claim about the effects of expropriation, including valuation of his investment and the payment of compensation, by a judicial or any other competent authority of the Kyrgyz Republic, in accordance with the procedure for compensation of losses to foreign investors according to Article 23 of the Law “On foreign Investment”.

Foreign investors may also seek remedies through international arbitration following the enforcement of the relevant international Conventions.

** Legislative framework for privatisation**

The general legislative framework for de-nationalisation and privatisation of the state property is set forth in two basic laws:

- The Law “On General Principles of Denationalisation, Privatisation and Entrepreneurial Activities in the Kyrgyz Republic” of 20 December 1991, and

They define main principles and approaches to transform the state property and create conditions for participation of broad range of entities in privatisation.

In order to pursue the privatisation policy of the Government, the State Property Fund was established. The Law spells out the procedures of operation and competence of the State Property Fund and its territorial divisions in fulfilment of practical measures for the state property transformation. It also lists facilities which will stay in the exclusive state ownership and shall not be privatised (land, subsoil, resources, forests, water resources and other natural resources).

The state property may be acquired by both, the legal entities and citizens of the Kyrgyz Republic or foreign legal entities and citizens.

Based on these Laws, a number of secondary legislation has been developed in order to implement the privatisation principles in practice. The most important are:

- The Concept of De-nationalisation and Privatisation of the State Property in the Kyrgyz Republic for 1998-2000;
- The Programme of De-nationalisation and Privatisation of the State Property in the Kyrgyz Republic for 1998-2000;
- Legislative Framework for FDI -

- Methodical instructions for carrying out financial and economic analysis of enterprises, approved by the Decree of the Board of the State Property Fund of 20 June 1995;
- Methodical instructions for the assessment of the property value of the state enterprises in the Kyrgyz Republic, approved by the Decree No. 184 of the Government on 1 April 1999;

The other specific legislation was adopted for privatisation of individual energy sub-sectors (see Part IV).

**Legislation regulating the publishing of laws and other legal acts; subjects of publishing (laws, regulations, administrative rulings, judicial decisions, international agreements, public procurement, etc.)**

The principal law regulating publication of laws and other legal regulations in the Kyrgyz Republic is the Law No. 34 “On Legislative Acts” of 1 July 1996.

Laws, Decrees of the President of the Kyrgyz Republic, Government Resolutions, as well as norm-setting legal regulations of ministries, state committees, the State Property Fund, administration bodies, i.e. acts applicable to enterprises, institutions, organisations, as well as citizens and their associations, are published (save the acts containing the state or other secrets) in official public sources.

Legislation concerning the following issues is not applicable (enforced) if it is not officially published for public information:

- human and civic rights, freedoms and responsibilities;
- classification or valuation of goods for customs purposes or duty rates, taxes and other charges, or import and export demands, restrictions or prohibitions, or relevant to transfers of payments or concerning their sales, distribution, transportation, insurance, storage, inspection, demonstration, refining, mixing or other use;
- customs matters, anti-dumping, safeguard, compensatory measures, standartisation and certification, sanitary and phytosanitary measures, as well as other legislation pertinent to foreign trade.

According to Article 9 of the Law “On Foreign Investment”, all regulations, as well as judicial decisions, which in any way affect the interests of foreign investors, must be made available to them and, in cases directly envisaged by the Kyrgyz legislation, published.

**General measures for ensuring observance at sub-national levels; competence of sub-national authorities (governments); enactment of international treaties at sub-national levels**

Kyrgyzstan is a unitary state. The local governance in the Kyrgyz Republic is carried out by local communities governing local issues within the law and on their own responsibility.
The powers of sub-national authorities are regulated by the Law No. 437-XII “On Municipal Governance and Local Public Administration” of 19 April 1991. Local councils (keneshes) and other local authorities must ensure observance of all laws, secondary legislation, regulations, orders, decrees, judicial decisions and international agreements.

**Legislation regulating intellectual property rights**


For the purpose of forming the state policy in the area of intellectual property, the State Agency for Intellectual Property under the Government of the Kyrgyz Republic was established by the Decree of the President of the Kyrgyz Republic of 4 March 1996. The most important secondary legislation approved by the Board of this Agency include:

- Provisional methodical instructions on valuation of intellectual property, approved by the Resolution of the Board of the State Agency for Intellectual Property under the Government of the Kyrgyz Republic of 23 May 1996;
- Regulations on public registration of intellectual property, approved by the Resolution No. 3 of the Board of the State Agency for Intellectual Property under the Government of the Kyrgyz Republic of 28 April 1998;
- Rules for consideration and registration of licensing agreements on copyright and related rights, approved by the Decision No. 3 of the Board of the State Agency for Intellectual Property under the Government of the Kyrgyz Republic of 26 March 1999.

**III.2. Summary of laws/regulations relevant to making investment in the energy sector**

List of all laws and regulations, including the date of their entry into force, relevant to making investment in the energy sector

- Constitution of the Kyrgyz Republic of 5 May 1993;
- Law on International Treaties No. 89 of 21 July 1999;
- Law on Legislative Acts No. 34 of 1 July 1996;
- Civil Code, part I, No. 15 of 8 May 1996, entry into force-1 June 1996;
- Civil Code, part II, No. 15 of 5 January 1999, entry into force-1 March 1999;
- Law on Economic Partnership and Associations No. 60 of 15 November 1996;
- Law on Public Registration of Legal Entities No. 39 of 12 July 1996;
- Law on Foreign Investment No. 66 of 24 September 1997;
• Law on Investment Funds No. 92 of 26 July 1999;
• Law on Concessions and Foreign Concession-based Enterprises of 6 March 1992;
• Law on Introduction of Amendments and Additions into the Constitution of the Kyrgyz Republic No. 134 of 17 October 1998;
• Land Code No. 45 of 2 June 1999;
• Law on Restrictions of Monopolistic Activities, Development and Protection of Competition of 15 April 1994;
• Law on Natural and Authorised Monopolies of 8 October 1999;
• Law on Consumer Protection of 10 December 1997;
• Law on Advertising of 24 December 1998;
• Law on Commercial Secrets No. 27 of 30 March 1998;
• Administrative Liability Code No. 114 of 4 August 1998;
• Tax Code of 20 October 1998;
• Customs Code of 30 July 1997;
• Law on Anti-dumping of 31 October 1998;
• Law on Subsidies and Countervailing Measures of 31 October 1998;
• Law on Safeguards of 31 October 1998;
• Law on State Regulation of Foreign Trade Activities of 2 July 1997;
• Law on Free Economic Zones of 16 December 1992;
• Law on the Legal Status of Foreign Citizens in the Kyrgyz Republic of 14 December 1993;
• Law on Stay of Foreign Citizens in the Kyrgyz Republic No. 1299-XII of 14 December 1993;
• Law on Securities Market of 21 July 1998;
• Law on Currency Transactions of 5 July 1995;
• Law on the National Bank of the Kyrgyz Republic of 29 July 1997;
• Law on Banks and Banking of 29 July 1997;
• Law on General Principles of Denationalisation, Privatisation and Entrepreneurial Activities of 20 December 1991;
• Law on Denationalisation and Privatisation of State Property No. 1385-XII of 12 January 1994;
• Law on Legislation No. 34 of 1 July 1996;
• Law on Municipal Governance and Local Public Administration No. 437-XII of 19 April 1991;
• Law on Copyright and Related Rights No. 6 of 14 January 1998;
• Patent Law No. 8 of 14 January 14 1998;
• Law on Trademarks, Service Marks and Indication of the Places of Origin of Goods No. 7 of 14 January 1998;
• Law on Legal Protection of Layout Designs of Integrated Microcircuits No. 29 of 31 March 1998;
• Law on Brand Names of 23 December 1999;
• Law on Mortgage No. 40 of 27 June 1997, published on 4 July 1997;
• Law on Public Registration of Real Estate Rights of 22 December 1998, published on 31 December 1998;
• Law on Bankruptcy (Insolvency) of 15 October 1997;
• Law on Licensing of 3 March 1997;
• Law on Energy No. 56 of 30 October 1996, entry into force the same day;
• Law on Electricity No. 8 of 18 January 1997, published on 12 February 1997;
• Law on Oil and Gas No. 77 of 8 June 1998;
• Regulations on Licensing Energy Activities in the Territory of the Kyrgyz Republic, approved by the Resolution No. 12 of the Government of 9 January 1998;
• Programme of Denationalisation and Privatisation of the Joint-Stock Company “Kyrgyzenergo”, approved by the Resolution No. 239 of the Government of 23 April 1997;
• Regulations of the Electricity Market approved by the Resolution No. 187 of the Government on the Regulation of the Electricity Market of 6 April 2000;
• Provisional Rules on Customs Clearance of Goods Transported Across the Customs Border of the Kyrgyz Republic by means of Pipeline Transportation and through Power Transmission Lines, approved by the Order N 273/P of the Minister of Finance on 1 October 1 1999, registered in the Ministry of Justice under No. 86 of 8 November 1999;
• Decree of the President of the KR on Measures to Enforce Judicial Protection of Rights and Lawful Interests of Subjects of Entrepreneurial Activities of 7 October 1999.

**Plans for amendments of existing or development of new legislation concerning the energy sector**

Further development of legislation applicable to the electricity sector will be carried out by the elaboration of new bills, bills introducing amendments and additions to already applicable laws and by improvement of statutory acts for implementation of laws, including the mechanisms of law enforcement.

The suppression of delinquency in the electricity sector is envisaged through the improvement of generally applicable Kyrgyz legislation by introducing amendments and additions, especially to the Criminal Code and the Administrative Delinquency Code. Furthermore, in order to combat a theft of electricity, it is necessary to elaborate a single mechanism of joint interaction of state bodies, including the jurisdiction.
III.3. Summary of participation in international organisations and/or conventions, treaties, agreements, etc

List of bilateral investment treaties (agreements) on the protection and promotion of foreign investments

Kyrgyzstan has concluded bilateral agreements with 25 countries worldwide, the list of which is provided as Annex 4.

List of bilateral treaties (agreements) on avoidance of double taxation

Kyrgyzstan has concluded the following bilateral agreements on avoidance of double taxation and prevention of delinquency in payment of taxes on profits and revenues:

<table>
<thead>
<tr>
<th>Country</th>
<th>Signing Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>signed in Bishkek on 26 June 1997, ratified by Law No. 40 of 19 April 1998, published on 17 April 1998</td>
</tr>
<tr>
<td>Ukraine</td>
<td>signed in Bishkek on 16 October 1997, ratified by the Law No. 44 of 10 April 1998, published on 17 April 1998</td>
</tr>
<tr>
<td>Canada</td>
<td>signed in Ottawa on 4 June 1998</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>signed in Moscow on 13 January 1999</td>
</tr>
<tr>
<td>India</td>
<td>signed in New Delhi on 13 April 1999</td>
</tr>
<tr>
<td>Mongolia</td>
<td>signed in Bishkek on 4 December 1999</td>
</tr>
</tbody>
</table>

The Kyrgyz Republic has also signed double taxation treaties with Poland, Turkey and the US.

Membership of international economic or environmental organisations or economic integration agreements, custom unions or free trade areas and membership of, or relations with, other major international organisations or groupings or donor organisations

The Kyrgyz Republic is a member of the following organisations:

- The Energy Charter Treaty;
- World Trade Organisation (joined on 14 November 1998);
- Commonwealth of Independent States (CIS);
- Collective Security Treaty Organisation (of the CIS);
- Eurasian Economic Community;
- International Monetary Fund;
- International Bank for Reconstruction and Development;
- International Financial Corporation;
- International Development Association;
• Multilateral Investment Insurance Agency;
• Interpol;
• International Labour Organisation;
• Asian Development Bank;
• Islamic Development Bank;
• OSCE;
• Organisation of the Islamic Conference (OIC);
• United Nations Organisation;
• European Bank for Reconstruction and Development;
• International Atomic Energy Agency;
• International Fund for Agricultural Development;
• Partnership for Peace (of the North Atlantic Treaty Organisation);
• Shanghai Cooperation Organisation;
• Economic Cooperation Organisation.

**Important conventions to which a country is a party (concerning the energy sector and/or investment disputes or intellectual property rights)**

- UN Convention on Recognition and Enforcement of Foreign Arbitral Awards (New York Convention) of 10 June 1958 (ratified by the Resolutions of the Legislative Assembly ZN 79-1 of 17 May 1995 and the Assembly of People Representatives PN 62-1 of 31 May 1995);
- the Washington Convention on the Settlement of Investment Disputes Between States and Nationals of Other States, 1965 (ratified by the Law No. 47 of 5 July 1997);
- Patent Law Treaty of 1 June 2000 (Geneva), ratified by the Law No 98 of 20 November 2001);
- Partnership and Cooperation Agreement between the European Communities and their Member-States on the one part, and the Kyrgyz Republic, on the other part (signed on 9 February 1995, ratified by the Law No. 43 of 5 July 1997);
- Treaty on the Customs Union and Common Economic Area (ratified by the Law No. 12 of 14 January 2000);
- Agreement on transit trade of the Economic Cooperation Organisation (ECO) (ratified by the Law No. 17 of 15 January 2000);
- Customs Convention on the International Freight Transport using TIR Carnet (TIR Convention) adopted in Geneva on 14 November 1975 (ratified by Law No. 99 of 19 December 1997);
- Vienna Convention for the Protection of the Ozone Layer and The Montreal Protocol on Substances That Deplete the Ozone Layer (ratified by the Law No. 16 of 15 February 2000);
- Bern Convention on Protection of Literary Works and Works of Art (ratified by Law No. 100 of 24 July 1998);
- Convention on Privileges and Immunities of the United Nations adopted on 13 February 1946 (ratified by Law No. 8 of 16 January 1999);
• Geneva Convention of 1949 and additional protocols of 1977 (ratified by Law No. 86 of 21 July 1999);
• ILO Convention No.81 on the Labour Inspection in Industry and Trade (ratified by Law No. 21 of 15 January 2000);
• Convention on Protection of Rights of Investors (ratified by Law No.48 of 3 March 2000).

**III.4. Exceptions to national treatment**

The legislation of the Kyrgyz Republic does not contain discriminatory provisions with respect to foreign investors. Legislative provisions relevant to making investments in the energy sector apply equally to domestic and foreign investors. Therefore, Kyrgyzstan does not notify any exception to the national treatment standard.
IV. **GENERAL ENERGY POLICY OF THE COUNTRY**

As part of Central Asian energy specialisation, electricity generated by the Republic’s hydro power plants is quite competitive on the regional energy market. This opens up huge export opportunities for Kyrgyzstan and accounts for an increasing power consumption pattern on the output side of the national fuel and energy balance. The advancement of the electricity sector must be a top priority for the development of the fuel and energy complex in the Republic and is of great significance for meeting energy demand in Central Asia.

1. **Objective.** The key objective of the energy sector is to achieve a financial revitalisation and establish conditions for balanced and comprehensive development of the energy sector and energy security in the Kyrgyz Republic in the long term until 2025.

2. **Tasks.** The following tasks must be accomplished to achieve the above objective:

   (i) ensure a reliable and uninterruptible energy supply to domestic users, first and foremost;

   (ii) establish institutional and legal/regulatory frameworks to complete the restructuring undertaken in 2001;

   (iii) award concessions to, and privatise electricity distributors before yearend 2007;

   (iv) determine and valuate energy sector assets by legislative action, involving third party auditors;

   (v) unbundle by legislative action the Kambarata HPP and Bishkek and Osh CHP plants from OJSC Power Plants with their own assets and offer them to strategic investors for joint construction and operations until 2008.

3. **Policies and measures.** The policies to achieve the sectoral objective include three components: an institutional policy, a tariff policy and an investment policy.

4. A step-by-step electricity price growth will be achieved up to the level necessary to recover actual energy company costs; consumer cross-subsidies will be discontinued by 2009-2010 with compensation arrangements to be developed for the vulnerable population groups and the irrigation sector.

5. It is necessary to improve financial management and corporate governance of energy sector entities, strengthen commercial and financial discipline in the sector; achieve sectoral entity profitability in conjunction with tariff increases through improved electricity bill collection rates.

6. Direct investment is required for the construction of 500 kV power supply lines to interconnect with Tajikistan’s power grid and access the electricity markets in Afghanistan and Pakistan and for the construction of another 500 kV power supply line – Kambarata-Kemin-Almaty.
7. The current weighted average power grid tariff is way lower than that required to recover full operating costs – such cost-reflective tariff would be 106 tyins/kWh, or 2.66 US cents/kWh with adjustments for inflation. The key tariff policy in terms of electricity (heat and natural gas inclusive) will seek to achieve tariff levels enabling full recovery of generation, transmission and distribution costs by 2010 (in nominal terms and adjusted for inflation forecasts, the average tariff should total 3.0 US cents/kWh by 2010). Tariffs will be well-balanced and facilitate the growth of the real sector of the economy, aiming at a gradual annual reduction of the quasi-fiscal deficit in the sector as early as by 2010; they will preclude consumer cross-subsidies. Tariff will be dependent on the voltage class to which the end user is connected, thus supporting the advancement of the real sector. Tariff increases will go hand in hand with progressive financial discipline and control in the energy sector to achieve the in-kind collection rate of 93% by 2010.

8. The Government will complete the social safety net reform and will monetise energy benefits by 2008 to provide adequate and better targeted compensations to low-income people (beneficiaries). A dedicated mid-term electricity and heat tariff policy will be developed and approved for the period 2006-2010 by yearend 2006.

9. The development and efficient functioning of the fuel and energy complex largely hinges on the resolution of problems standing in the way of consistent and mutually advantageous cooperation among Central Asian nations, seeking to develop a rational energy market in the region. This would enable optimisation of HPP, CHP, refinery and coal mine operations with a particular emphasis on efficient utilisation of power plant generating capacity both on a daily and annual basis.

10. Mutually advantageous economic relations between the states in the Central Asian region should be developed with a view to deepen cooperation in the water supply and fuel/energy sectors; establish conditions for the expansion of export capability; develop and implement joint mutually beneficial new construction and rehabilitation projects; attract investment in mutually advantageous development and advancement of the fuel and energy complex; and determine regional specialisation in meeting demand.

11. An environment will be established for electricity trade between Central and South Asian countries. By an expert estimate, loss of proceeds from the existing electricity export arrangement comes to dozens of millions of US dollars. The mid-term policy in this area will provide for an international tender to be held in 3Q each year for anticipated electricity exports that will be priced at least at the cost value of electricity shaped by the energy market at the contract date.

12. Legislation should be amended to allow for private investment in Kambarata HPPs and Bishkek CPH plants. Create a favourable investment climate to attract direct investment in the construction of a Sarydjas chain of hydro power plants, Kokomeren HPPs and Upper Naryn HPPs.
V. MARKET STRUCTURE AND PRIVATISATION BY SUBSECTOR

Overview

Kyrgyzstan is endowed with considerable primary energy resources, particularly hydropower and coal, but also some petroleum and natural gas. It has a good potential in renewable energy sources such as solar, wind, geothermal and biomass. Kyrgyzstan has also nuclear fuel processing capabilities (production of yellow cake), but operations have been discontinued as ore used to be imported from Kazakhstan and the product exported to Russia.

The country is a net exporter of electricity (some 93% of which is generated at hydropower plants), but is dependent on imports for all kinds of fossil fuel, since indigenous production of oil and natural gas is marginal and coal production – which declined steeply during the 90s – is only recovering at a slow pace. The basis of the primary energy balance of Kyrgyzstan is thus formed by domestic hydropower and imported gas and petroleum, with domestically mined and imported coal also contributing significantly. Overall, imports constitute about 55% of primary energy supply. Import dependency is particularly burdensome for natural gas and petroleum, of which 97% and 82% accordingly originate in other countries; together oil and gas provide more than 45% of primary energy (about 30% for natural gas and 15-16% for petroleum). Table 7 provides data on the primary energy balance of the country.

On the demand side, significant structural adjustment took place during the 90s, when industrial activity declined and the services sector of the economy expanded. A slump in overall economic activity depressed demand for energy until the mid-90s, and at the same time the share of industry in final energy consumption fell from more than 41% to less than 30%. The residential and commercial sector emerged as the largest consumer of energy (more than 50% nowadays). In recent years, as the economy continues to expand, demand for energy is growing.

Institutionally, the oil, gas, coal and electricity sectors of the Kyrgyz fuel and energy complex (FEC) are under the direct supervision of the government, in particular the Ministry of Energy, Industry and Fuel Resources (MEIFR), established in early 2007 by reorganising the then-existing State Agency for Energy. MEIFR is responsible for all major energy sector development decisions and also for the energy strategy of the country. Additionally, there is a Department of Energy and Mineral Resources at the Office of the Government Apparatus. Development of legislation specific to the energy sector is in the domain of the Committee on Issues of Fuel and Energy at the national parliament, the Jogorku Kenesh.

Most of the sub-sectors of the energy business are still dominated by government-controlled companies, but private investment is significant in some cases, such as petroleum exploration and production, refining and distribution, and coal mining and distribution.

Operations are carried out in the upstream petroleum industry by the government-controlled Kyrgyzneftegaz (exploration and production) and several private companies.
Table 7: Primary energy balance of Kyrgyzstan (million tons of oil equivalent)

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Domestic production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>0.171</td>
<td>0.164</td>
<td>0.182</td>
<td>0.134</td>
<td>0.126</td>
<td>0.161</td>
</tr>
<tr>
<td>Crude oil</td>
<td>0.076</td>
<td>0.069</td>
<td>0.078</td>
<td>0.078</td>
<td>0.077</td>
<td>0.07</td>
</tr>
<tr>
<td>Natural gas</td>
<td>0.025</td>
<td>0.023</td>
<td>0.024</td>
<td>0.023</td>
<td>0.016</td>
<td>0.017</td>
</tr>
<tr>
<td>Hydropower</td>
<td>0.928</td>
<td>1.092</td>
<td>1.001</td>
<td>0.916</td>
<td>0.891</td>
<td>0.915</td>
</tr>
<tr>
<td>Other(^{12})</td>
<td>0.004</td>
<td>0.007</td>
<td>0.002</td>
<td>0.004</td>
<td>0.004</td>
<td>0.006</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1.204</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Imports (net)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>0.348</td>
<td>0.415</td>
<td>0.339</td>
<td>0.398</td>
<td>0.358</td>
<td>0.541</td>
</tr>
<tr>
<td>Crude oil and refined products</td>
<td>0.335</td>
<td>0.074</td>
<td>0.206</td>
<td>0.164</td>
<td>0.512</td>
<td>0.161</td>
</tr>
<tr>
<td>Natural gas</td>
<td>0.718</td>
<td>0.591</td>
<td>0.645</td>
<td>0.597</td>
<td>0.659</td>
<td>0.671</td>
</tr>
<tr>
<td>Hydropower</td>
<td>-0.058</td>
<td>0.090</td>
<td>0.116</td>
<td>0.046</td>
<td>0.052</td>
<td>0.046</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1.343</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Apparent primary energy supply (consumption)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>0.519</td>
<td>0.598</td>
<td>0.620</td>
<td>0.685</td>
<td>0.602</td>
<td>0.778</td>
</tr>
<tr>
<td>Crude oil and refined products</td>
<td>0.411</td>
<td>0.372</td>
<td>0.338</td>
<td>0.380</td>
<td>0.450</td>
<td>0.367</td>
</tr>
<tr>
<td>Natural gas</td>
<td>0.743</td>
<td>0.613</td>
<td>0.669</td>
<td>0.617</td>
<td>0.674</td>
<td>0.688</td>
</tr>
<tr>
<td>Hydropower</td>
<td>0.870</td>
<td>1.027</td>
<td>0.828</td>
<td>0.900</td>
<td>0.763</td>
<td>0.878</td>
</tr>
<tr>
<td>Other</td>
<td>0.004</td>
<td>0.007</td>
<td>0.002</td>
<td>0.004</td>
<td>0.004</td>
<td>0.006</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2.547</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The only refinery in the country belongs to the Kyrgyz Petroleum Co. (KPC), initially established in 1996 as a joint venture of U.K-based Petrofac Resources International Ltd. and Kyrgyzneftegaz. KPC is active in oil exploration, refining, and distribution of oil products.

Until 2003, the state-owned enterprise Munay (created by a presidential edict in 1999) enjoyed certain special rights in refined products distribution, since it was the entity that was also responsible for licensing other companies for importing petroleum products and selling them wholesale. In late 2002, Munay was liquidated, since the existing private companies (about 60 in total) were able to assure sufficient supply on competitive terms. The oil product distribution sector is now entirely in the private domain.

Imports, exports, pipeline transportation and distribution of natural gas are dominated by the state-owned Kyrgyzgaz Co., which has a virtual monopoly.

The largest coal sector company is the state-owned Kyrgyzkomur, but at some mines and in coal distribution private companies are also active.

Electricity generation, transmission and distribution are almost entirely in the hands of state-owned companies. Electric Power Stations Co. (EPS) generates and exports electricity, National Power Grids Co. (NPG) transmits electricity via lines rated at 110-500 kV and provides dispatch services, and four regional power companies distribute electricity and run the grids rated at 50 kV or less.

\(^{12}\) Biomass, geothermal, solar, wind.
The district heating sector is represented by municipal companies, the largest of which is in the capital (Bishkek).

Some of the major problems which the energy industry of Kyrgyzstan faces are:

- Subsidised energy, which is used to support energy-intensive exports (gold, lead), agriculture and social welfare programs;
- Low efficiency of the use of energy (energy intensity of GDP is about 3 times higher than average energy intensity in the world);
- Serious problems with emissions control and reduction, particularly where sulphur-rich coal is used;
- The extensive use of subsidised electricity of space and hot water heating;
- The use of agro-waste and dry dung for heating and cooking in inefficient and polluting appliances (stoves, open fire);
- High import dependency, particularly in gas and oil;
- High degree of wear and tear at almost all major energy sector facilities, but especially so in the grid and at coal mines, leading to low availability and reliability;
- Difficulties in balancing water use for power generation and irrigation (the latter mostly in neighbouring countries), especially at the Toktogul reservoir and power plant;
- Difficulties in structuring and securing funding for the construction of hydropower plants that would tap into the very large, but still underutilised hydropower potential;
- Difficulties in dealing with “losses” in the gas and power systems, metering, accounting and payments for deliveries of gas and electricity.

The next sections of this report look at the structure and the issues of the energy sector in greater detail.

V.1. Oil

V.1.1. Upstream

Resources and Reserves

Kyrgyzstan contains five oil and gas bearing basins (Fergana Valley, Chuy, Alay, Issyk-Kul, and At-Bashi) with resources that are believed to be considerable, but are mostly unproved. The total area of the basins is about 22.3 thousand square km, of which about 5,000 in the Fergana Valley. All of the discovered oil and gas deposits (located at 15 fields) are located in the Fergana Valley, a well-known prolific hydrocarbons bearing basin, which also contains all the developed and producing fields of Kyrgyzstan (seven oil fields and two oil/gas fields).

The Fergana Valley basin is divided between Kyrgyzstan, Uzbekistan, and Turkmenistan, and about 26% of the Fergana basin oil and gas fields and about 16% of the oil discovered in the entire basin through 1987 are located in Kyrgyzstan. Two of the fields (Chaur-Yarkutan-Chimion and Chongara-Gal’cha) saddle the border between Kyrgyzstan and Uzbekistan. The estimated ultimate oil recovery for discovered fields in Kyrgyzstan’s part of the Fergana Valley is about 175 million barrels (about 24 million tons), and the estimated ultimate gas recovery from
associated and non-associated discovered gas fields is about 23 billion cubic meters, of which about 2 bcm associated. Cumulative production in the Fergana Valley as of 2003 was more than 10 million tons of oil and more than 7.5 billion cubic meters of gas. Table 8 provides data about the oil and gas resources of the known fields in the Kyrgyz part of the Fergana Valley.

Table 8: In-place and ultimately recoverable resources of oil and gas in fields in the Kyrgyz part of the Fergana Valley

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Original Oil In Place (million barrels)*</th>
<th>Total Ultimate Recoverable Oil, Primary + Waterflood (million barrels)*</th>
<th>Total Ultimate Recoverable Associated Gas, Primary + Waterflood (million cubic meters)</th>
<th>Original Non-Associated Gas In Place (million cubic meters)</th>
<th>Ultimate Recoverable Non-Associated Gas (million cubic meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedresay</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Izbaskent</td>
<td>39</td>
<td>6</td>
<td>62</td>
<td>5,499</td>
<td>4,059</td>
</tr>
<tr>
<td>Kyzyr-Alma</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,555</td>
<td>1,151</td>
</tr>
<tr>
<td>Maylisay</td>
<td>6</td>
<td>2</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Maylisu III</td>
<td>33</td>
<td>6</td>
<td>105</td>
<td>4,943</td>
<td>4,091</td>
</tr>
<tr>
<td>Maylisu IV-Izbaskent Vost. (East)</td>
<td>389</td>
<td>69</td>
<td>603</td>
<td>5,347</td>
<td>4,274</td>
</tr>
<tr>
<td>** Subtotal, North Basin Flank</td>
<td>467</td>
<td>83</td>
<td>780</td>
<td>18,551</td>
<td>14,455</td>
</tr>
<tr>
<td>Changyrtash</td>
<td>63</td>
<td>13</td>
<td>121</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Chigirchik</td>
<td>57</td>
<td>28</td>
<td>57</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suzak</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6,063</td>
<td>4,868</td>
</tr>
<tr>
<td>** Subtotal, South Flank – NE of Fergana</td>
<td>121</td>
<td>41</td>
<td>178</td>
<td>6,063</td>
<td>4,868</td>
</tr>
<tr>
<td>Beshkent-Togap-Tashravat</td>
<td>31</td>
<td>8</td>
<td>22</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rishtan, Sever. (N)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,873</td>
<td>1,527</td>
</tr>
<tr>
<td>Sarykmash</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>897</td>
<td>731</td>
</tr>
<tr>
<td>Sarytok</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>130</td>
<td>104</td>
</tr>
<tr>
<td>Chaur-Yarkutan-Chimion**</td>
<td>76</td>
<td>18</td>
<td>41</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Chongara-Gal'cha**</td>
<td>154</td>
<td>34</td>
<td>991</td>
<td>1,915</td>
<td>1,465</td>
</tr>
<tr>
<td>** Subtotal, South Flank – SW of Fergana</td>
<td>230</td>
<td>51</td>
<td>1,032</td>
<td>4,815</td>
<td>3,828</td>
</tr>
<tr>
<td>** TOTAL</td>
<td>817</td>
<td>175</td>
<td>1,990</td>
<td>29,429</td>
<td>23,152</td>
</tr>
</tbody>
</table>

* One barrel is approximately equal to 0.13 metric tons
** Shared with Uzbekistan

Source: EIA / USGS, Oil and Gas Resources of the Fergana Valley Basin (1994)

The estimates of the hydrocarbon resources in the Fergana Valley differ within a wide margin. Kyrgyz officials believe that the Kyrgyz part of the Fergana Basin contains yet-to-be-discovered hydrocarbon resources to the order of 700 million barrels (100 million tons) of oil equivalent. According to Kyrgyzneftegaz, southern Kyrgyzstan has oil reserves estimated at more modest 230 million barrels (about 13


14 Other sources list the fields as:
   six oil fields (Changyrtash, Chigirchik, Mailisay, Karagachi, Beshkent-Togap-Tashravat, Tamchi),
   five gas and oil fields (Mailisu IV-Izbaskent East, Niyazbek–North Karachikum, North Flistan),
   and four gas filed (Suzak, South Flistan, Sarykmash and Sarytok).

30 million tons). Unnamed sources at the World Bank are quoted as believing that the Fergana Basin reserves (Kyrgyzstan only) at 2.8 billion bbl of oil (about 380 million tons) and 10.8 tcf of gas (about 300 billion cubic meters). Similar disparate claims are made about the other hydrocarbon bearing basins in the country. Kyrgyz sources claim that the combined reserves of the Chuy, Alay, Issyk-Kul, and At-Bashi basins could be as much as 1.5-2.2 billion barrels (215-315 million tons). However, none of these are yet proved, and after many years of production the remaining proved crude oil reserves are presently only 40 million barrels (about 6 million tons) and those of gas 200 billion cubic feet (about 6 billion cubic meters), all in the Fergana Valley.15

The resource base of the country is modest, but since demand for and gas is also moderate, Kyrgyzstan could eventually become self-sufficient in oil and gas, if exploration is stepped out and the relevant oilfield investment is made. The republic does not posses the required financial and technical resources, and for this reason hopes to expand its hydrocarbons base and increase production in partnership with foreign investors.

Exploration and production licenses for hydrocarbons and coal are issued by the State Agency for Geology and Mineral Resources. As of end-2005, the Agency had issued a total of 345 licenses and cancelled 188 licenses for all kinds of minerals. The Agency issued 25 licenses for oil and gas and 36 for coal. The reasons for cancelling licenses were the lack of own financial resources for surveying and development.16

**Exploration and Production**

Exploration in the Fergana Valley began early in the 20th century and already by 1913 oil production reached 3,000 tons annually. Oil production peaked in Kyrgyzstan in 1958 at 494,000 tons and gas output peaked at about 0.4 billion cubic meters per year during the 70s, but both declined thereafter due to the depletion of the known fields and poor production practices. The decline of production continued after Kyrgyzstan gained independence and is currently around 75,000 tons of oil per year and about 20 million cubic meters of natural gas.

In Soviet times, Kyrgyzstan was able to get cheap supplies of refined products from Russia, Kazakhstan and Uzbekistan, and the development of its petroleum potential was not a priority. Today, however, these countries are interested in selling their oil at the best prices on world markets, which has pushed up the cost of supply of liquid fuels to Kyrgyzstan as well. Therefore, Kyrgyzstan is quite interested in increasing the domestic output of oil and gas. Already in 1994, the Kyrgyz Government launched an initiative to attract foreign investment in its upstream operations. In 1999, the state-owned joint-stock company Kyrgyzneftegaz (Kyrgyz Oil and Gas, KNG) was set up and is now producing from seven oil fields and two oil and gas fields. Several private foreign companies are exploring new acreage or redeveloping existing fields in partnership with KNG.

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16 FSU Oil and Gas Monitor, 8 February 2006.
Kyrgyzneftegaz

In 2006, KNG’s stock was owned by the government (85.16% of shares), various individual shareholders and legal entities (9.8%) and the employees (5%). KNG was officially entered in the privatisation program, with the government’s intent being to divest of some stock but keep a controlling 51% stake in the company. Reportedly, investors from the Middle East were interested to acquire 25% of the stock. Earlier (in 2004) the idea to hand over the government’s package to Gazprom in a management trust transaction was entertained, but in April 2006 a decision was made to shape the partnership with Gazprom as a joint venture (see below). Accordingly, further privatisation of KNG was postponed. At the moment, KNG is assessing its book value as a first step towards preparing a market value assessment of the company based on reserves of hydrocarbons and other factors. In early 2006, the par value of KNG stock issued was about 1.4 billion Som.

As of 2006, in the country there were 510 wells (472 oil and 38 gas). Of the oil wells, 325 were producing and 143 idle; of the gas wells there were 11 producing and 27 inoperative. Kyrgyzneftegaz has on its books 313 wells, of which 247 producing. All of the wells are strippers, with daily production of 5-10 barrels of oil equivalent. The vast majority of the wells is at four fields (Maylisu-IV-East Izbaskent, Changyrtash, Beshkent-Togap and Karagachi) located in the Batken and Djalal-Abad regions. Although the oilfield equipment is obsolete and fully depreciated (it dates back to the 60s and 70s), the wellhead cost of oil and gas produced by KNG is relatively high (about $70 per ton for oil and about $25-30 per 1,000 cubic meters for gas). However, market prices now are considerably higher and KNG does make a profit.17

KNG operates most existing wells, but some wells are allocated to joint ventures with foreign partners, wherein the foreign partners have undertaken to invest in enhanced oil and gas recovery or rework idle wells and share the increased output with KNG as remuneration for their services (see below). As of early 2006, there were five active joint ventures of foreign companies with KNG, and one more memorandum signed (with Storm Ventures, Canada).

A small private Kyrgyz company (Batkenneftegaz, managed by Batkennefteservice) gained in 2001 control over five gas-producing wells and is producing about 12-13 million cubic meters of gas annually (about 45-50% of the country’s total). Under the terms of the transfer of the wells to Batkenneftegaz, the company did not undertake any investment liabilities and KNG is requesting compensation for the cost it incurred when sinking and outfitting the wells (about 7 million Som). In 2003, The State Property Committee consented to KNG’s request, but neither Batkenneftegaz nor Batkennefteservice have yet heeded the Committee’s decision.18

Until 1991, crude oil output from the Kyrgyz fields was delivered for processing outside the country, primarily to Uzbekistan, but exports were discontinued in 1991 since the refineries asked for terms and conditions which were not acceptable. For a

17 Source: KNG.
18 Ibid.
few years, crude oil production was stored (re-injected or collected in open pits), as there was no refinery in Kyrgyzstan until 1996.\textsuperscript{19}

Since late 1996, KNG sells its production entirely on the domestic market and almost exclusively to government-owned and municipal entities. Gas is delivered to customers in the Osh Region, mostly to the Maylisu Electric Lamp Factory, with some gas sold to residential and commercial consumers as well. Oil is processed at the Djalal-Abad refinery. Part of the light-end products are handed over to the refinery as payment for the service, while the rest are sold on the domestic market. Fuel oil is sold to just two customers – the Osh Heat and Power Plant and KyrgyzZhilKommunSoyuz (KZKS, an umbrella organisation of municipal consumers). All the main customers of KNG are in deep arrears to KNG. Osh Heat and Power Plant and KZKS owed for fuel oil 47 million Som as of early 2006, and the Maylisu Electric Lamp Factory owed 15 million for gas. At the same time, the government by decree has prohibited the sale by KNG of oil and gas to other parties. The company thus has had virtually to hand over a large part of its product for free.\textsuperscript{20}

In pursuit of reform, the profit tax was reduced in 2006 and KNG stood to benefit from reduced tax burden about 3-4 million Som. However, at the same time an excise tax on crude oil (600 Som per ton) was introduced, thus essentially establishing double excise tax on refined products, since products are already subject to an excise tax. KNG estimated that the new tax would burden it with a liability amounting to about 40-45 million Som in addition to the taxes that it already pays (about 90 million Som per year) and dividends that it distributes (about 2-3 million Som per year), pushing it into the red. In 2005, KNG’s profit was 26 million Som.\textsuperscript{21} This tax has not been used for the last 2 years by the decision of the KR Ministry of Industry, Energy and Fuel, approved by the Parliament.

Since its establishment, KNG has battled head winds due to lack of funding, high cost of production, “social” liabilities and high depletion of the fields. The company has a payroll of about 2,000. It maintains a number of off-profile services in its main operations area (Kochkor-Ata) which burden it with additional expenses. The city of Kochkor Ata with a population of 25,000 is entirely supplied by water, gas and electricity by the company, which also maintains schools, theater hall, vacation village, etc., at a cost of about 3.6 million Som per year.

In 2002, KNG estimated that at least seven new production wells have to be drilled annually in order to keep output from decreasing, at a cost of some $20 million per year. To carry out a minimum exploration program, KNG needed further $5 million per year. Since funding was not available, KNG preferred to enter in a series of joint venture agreements with foreign investors. These are looked at greater detail below, along with the activities of upstream operators without the participation of KNG.

\textsuperscript{19} See: Поляхова О.В. (составитель): Энергетические ресурсы Кыргызской Республики (Обзорная информация), 2003. Государственная патентно-техническая библиотека Кыргызской Республики, Отдел дифференцированного информационного обслуживания.
\textsuperscript{20} Ibid.
\textsuperscript{21} Ibid.
Cambrian Oil and Gas

The first JV was with Action of Australia, with KNG holding a 28% stake in the venture. In 2004, Action founded a joint venture with Cambrian Oil & Gas plc (COIL, U.K.). The JV (Zhibek Resources plc) entered into agreements with KNG. Later Zhibek was later taken entirely over by COIL. COIL has a portfolio of interests in Central Asia, China, the North Sea and Australia. In December 2006, COIL was itself 100% taken over by Xtract Energy plc ("Xtract", U.K.).

Xtract Energy’s Central Asian interests are now held through its wholly owned subsidiary Cambrian Oil & Gas Plc (COIL) which is managed in Australia. They include:

1. a production sharing agreement with Kyrgyzneftegaz to instigate a water injection project on the Beshkent-Togap oil field;
2. a 72% interest in JSC KNG Hydrocarbons, which holds several exploration licences in the Tash Kumyr area; and
3. a 100% interest in the Toktogul exploration licence.

Progress on each of these projects is outlined below.

Beshkent-Togap Water Injection Project

A pilot water injection project commenced in October 2005 at the Beshkent part of the field. Water is injected into the injection wells to displace oil in the reservoir towards the existing oil production wells. While the incremental oil volumes to date are relatively minor (about 100 tons per month), they are important in establishing the viability of expanding the project across the whole field. Agreement has been reached with Kyrgyzneftegaz for COIL to fund the rehabilitation and upgrading of the water injection facilities that Kyrgyzneftegaz installed in the Togap area of the field in 1989-1990. Work is underway to design facilities to expand water injection across the rest of the field.

Tash Kumyr Exploration Area Programmes

During 2005 and 2006, JSC KNG Hydrocarbons (KNG HC) acquired over 100 km 2D seismic over previously identified prospects and leads in the Tash Kumyr area. Identified structures conform to previous interpretations by Kyrgyzneftegaz. The southern and northern structures appear to extend outside the original licence boundary. As a result, the current licence was extended to the north and a new West Kyzyl Djar licence, 618-NP, was granted to the west and southwest. The original Tash Kumyr licence has been divided into 3 separate licence areas (Tash Kumyr 615-NR, Pishkaran 964-NP and Shink Sai 916-NR).

The most recently acquired seismic data is currently being processed and interpreted in Germany and combined with data acquired earlier. The COIL Board expects to have an upgraded structural map of the main prospects in the near future and will use this map to identify possible drilling targets. COIL is talking to other operators in the Kyrgyz Republic to share mobilisation of a drilling rig, which can be used to commence drilling in the second half of 2007 or early 2008.

Several workovers are under investigation in the West Kyzyl Djar Licence area. Two wells have been identified where oil was reported to have been produced and potential may exist to establish oil production at a relatively low cost.
Toktogul Exploration Licence

Geological and geophysical studies including a review of all previous surface geological maps and gravity maps over the licence area have been completed. Based on this review, Zhibek Resources was granted an extension of the licence area (142-NP) to allow the planned geochemical survey to extend into adjoining prospective areas. The Toktogul structure is expressed as a surface anticline. No wells have been drilled to the likely target horizon in this intra-mountain basin although its geological setting is believed to be similar to those occurring in the Fergana Basin and at Tash Kumyr. The early results are encouraging and work is in progress to compare these results with the current understanding of the geology and the Toktogul structure.22

Itera Holding – Splay

Soon after the establishment of the first joint venture which successfully evolved in the partnership with COIL-Xtract, a trilateral agreement of KNG with Russia's Itera Holding and Splay Co. was reached, aiming at the exploitation of newly drilled wells. Under the agreement, Itera undertook to finance and Splay agreed to drill new wells. KNG retained a 50% interest in the profits.23 However, this project seems to have met little success.

Chinese Companies

In 2002, an agreement was reached between the China National Petroleum Corporation (CNPC) and Kyrgyzneftegaz, under which CNPC could invest up to $300 million in Kyrgyz oil extraction by developing oil and gas deposits in southern Kyrgyzstan. At the time, the parties believed that domestic annual oil output could rise from 75,000 to 500,000 tons in the first three years of joint efforts,24 but this venture is yet to make practical progress.

Also in 2006, Kyrgyzneftegaz signed a contract on damage control at inoperative wells with Ten I LLC (China). The Chinese company expects to invest about $12 million in order to bring in additional oil production of about 90,000 tons during 2007-2008.25 Another Chinese partner (Gunyi Co.) has implemented a similar idle well workover program, with modest results – it produces about 2,500 tons of crude oil per year. Yet another Chinese company obtained several years ago from the State Geology Committee an exploration license in the Alay basin, where KNG had already carried exploration, but was neither consulted nor received compensation for its investment (about 20 million Som). KNG has therefore asked the government to either restructure the license as a joint venture, or assist it in obtaining compensation from the Chinese company.26

Groundstar Resources

In late 2005, Groundstar Resources Ltd. (Canada) executed a Memorandum of Understanding with KNG. The MOU provides for the negotiation of a Production Sharing Agreement and Joint Venture Agreement between Groundstar and

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22 Source: Xtract Energy.
25 Source: BNC Finance Investment Company.
26 Source: KNG.
Kyrgyzneftegaz in respect to a producing oil field, as well as two exploration blocks (Exploration Block-1 and Exploration Block-2) in the Fergana Valley Basin, all of which lands are located in Kyrgyzstan. Exploration Block-1 covers 120 square kilometers. The exploration target is the Jurassic formation at a depth of about 2,000 meters. Exploration Block-2 is in the Kugart depression and covers 370 square kilometers in the Fergana Valley Basin. This exploration block has multi-zone objectives, to a total depth of about 4,000 meters.27

**Gazprom**

In April 2006, an agreement was reached between the Kyrgyz President and Gazprom’s CEO A. Miller for the establishment of a joint venture between KNG and Gazprom. The parties agreed to start geological exploration in Kyrgyzstan immediately and finalise the relevant legal procedures for the establishment of the joint venture when more information becomes available.28 KNG pins its greatest hopes on this joint venture, since apart from oil and gas exploration and production, Gazprom is interested to participate in the rehabilitation of the main gas pipelines, the construction of compressor stations, underground gas storages and other energy infrastructure in Kyrgyzstan. In August 2006, Gazprom Neft (an affiliate of Gazprom) acquired 100% of the stock of Munai Myrza, a refined products distributor with 74 gas stations, 8 oil products depots and two LPG storage and sale facilities (see more below in the relevant sections dealing with refined products distribution and the natural gas sector).29

**Kyrgyz Petroleum Company – Petrofac**

One of the principal partners of Kyrgyzneftegaz is the Kyrgyz Petroleum Company CJSC (KPC). Kyrgyz Petroleum Co. was established as a 50-50 JV by Kyrgyzneftegaz and Kyrgoil Corp., Calgary. Kyrgoil was 46% owned by Petrofac Resources International Ltd. (U.K.), part of the Petrofac Group.

KPC holds the exclusive right to complete, re-complete, and rework producing and non-producing wells and drill new wells in 12 defined license areas in the Fergana basin in western Kyrgyzstan. The license areas cover a combined 1.6 million acres. Early activities of KPC involved incremental oil production from the workover and re-fracturing of 20 oil wells in Mayli-Su IV, but the field declined from an initial 150 b/d to 39 b/d in 1999. Oil field activity in 1999 was limited to maintenance of the 20 wells previously fractured.30

KPC is also the owner-operator of the only refinery in the Kyrgyz Republic (see below in the section on refining).

**Santos**

In a major recent development, Santos International Operations Pty Ltd, a subsidiary of Santos (Australia), entered into farm-in agreements with Caspian Oil and Gas Limited

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27 Source: Groundstar (www.groundstarresources.com).
29 Source: www.pr.kg, 7 August 2006.
and DWM (a Swiss registered company) where Santos will earn an 80% operated working interest in 17 exploration permits licensed to Textonic PLC, (a Caspian subsidiary) and a 70% interest in a further six permits licensed to South Petroleum. In addition Santos has taken a 15% direct equity placement in Caspian.

Santos will sole fund and operate a phased work program over all of the licences over a period of approximately four years to earn the working interests. Many of the licences are located in the Kyrgyz areas of the Fergana Basin (Figure 13). A seismic program is planned for 2007 in the Santos interest licences which will target the firming up of prospects and leads for drilling in 2008.31

Figure 13: Santos Exploration and Production Acreage in Kyrgyzstan

Monitor Energy

Other exploration and production companies active in Kyrgyzstan include Monitor Energy Ltd. Monitor has 100% interest in the East Issyk-Kul oil and gas exploration license that covers an area of approximately 980 square kilometers situated to the east of Lake Issyk-Kul in the north-eastern part of Kyrgyzstan. The company also holds approximately 4,500 square kilometers petroleum exploration license in the Atbashi

Basin in southern Kyrgyzstan. Monitor Energy was formerly known as Monitor Holdings Limited and changed its name to Monitor Energy Limited in April 2007. The company is based in West Perth, Australia.\(^{32}\)

**Cadena Petroleum**

In May 2001, the Canadian oil company Cadena Petroleum discovered an oil field in the Djalal-Abad region in southern Kyrgyzstan. The field reportedly contains estimated reserves of 10 million metric tons.\(^{33}\) However, there seems to be no subsequent movement on the project.

**V.1.2. Refining**

The Republic’s oil processing sector is represented by a Djalal Abad Refinery owned by Kyrgyz Petroleum Company, with an output of 250 KTA. The company operates under an Investment Agreement signed with the Government of the Kyrgyz Republic on December 21, 1995. The rights and obligations of the company, Petrofac Resources International Ltd. (50% block of shares) and OJSC Kyrgyzneft (50% block of shares) are governed by a Shareholder Agreement of May 7, 1996 and the Company Charter of May 8, 1996.

After signing an Investment Agreement with the Kyrgyz Government in December 1995, Kyrgoil secured funding from investors to finance its obligations under the Investment Agreement. These included its initial contribution to be spent on a refinery and oil field development. Construction of the petroleum refinery at Djalal-Abad began in January 1996 and was completed in record time in September 1996. It was formally opened on 6th October 1996. By the end of 1996, Kyrgoil had fully met its cash contribution obligations under the Investment Agreement but continued to invest in the refinery and oil fields. At the same time additional tankage and product loading facilities were installed to improve the flexibility of the refinery in the new situation. Further improvements were made during 1998 to 2001 to increase the octane of the gasoline produced at the refinery as a response to the increasing number of modern cars being imported into the Kyrgyz Republic.

The refinery is located at Djalal-Abad in the southern part of the republic. It is designed to process typical Kyrgyz 30° API sweet crude. Because domestic production is low (about 1,300 bpd), KPC imports alternative feedstock such as gas condensate, semi refined products, distillates, from neighbouring countries. The refinery operates well below capacity (33-45% load factor), since it can handle lesser amounts of alternative feedstock. It produces A-76 leaded gasoline (expected to be phased out), A-80 unleaded gasoline, diesel fuel, and fuel oil. Due to feedstock properties and configuration, the refinery produces mostly heavier products (diesel and fuel oil) and caters primarily to the requirements of construction companies, heating and power plants, and government departments, but some products are also sold to retailers. The refinery is exempt from tax, but still reports loss, primarily due to low load factor.

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\(^{33}\) RFE/RL.
KPC is an international company that employs many different nationalities including Kyrgyz citizens. A training centre exists principally for training refinery operators. The intent is to make KPC’s operation close to 100% Kyrgyz operated and managed.\(^{34}\)

Gasoline and diesel fuel are also produced at two processing plants constructed in the Chui Valley by Vostok Co., a joint venture with foreign participation. The plants use as feedstock gas condensate imported by Kazakhstan. One of the units is located in the city of Kant and has a capacity of 120,000 tons per year, and the other one is at the village of Kemin and has a capacity of 60,000 tons per year.

There is also a small condensate processing unit (2,500 tons per year) in the village of Kochkorka.

The plants that use as feedstock gas condensate only operate intermittently, as they face difficulties in obtaining raw stock (Kazakhstan has introduced bans on exports of condensate, etc.). Output of gasoline and diesel fuel from condensate processing plants is therefore low; in addition, the plants are only able to produce low quality product (80-octane gasoline and diesel).\(^{35}\)

V.1.3 Pipelines, Imports, Exports, Distribution

At the oil and gas fields in the Fergana Valley, there is a crude oil gathering and transportation pipeline system constructed mostly during the 60s, which was designed to supply oil from the fields to refineries in Uzbekistan. At the moment, it is partially rehabilitated and only used as a gathering system in the fields. There are no product pipelines in Kyrgyzstan.

Crude oil is not imported in Kyrgyzstan, even though the Djalal-Abad refinery operates at a low load factor and could process certain grades of Uzbek or Kazakh crude. Some condensate (up to 50,000-70,000 tons per year) are imported and processed at the two Vostok plants in the Chui valley. Condensate and naphtha are also imported as feedstock for the Djalal-Abad refinery. However, about 85% of the petroleum products consumed in Kyrgyzstan originate abroad. Demand for products consists mostly of fuel oil (about 50% of total), gasoline and diesel (about 15-20% each), and smaller quantities of LPG and jet fuel. Overall, almost all the liquid fuels imported to the country originate in Uzbekistan and Kazakhstan, except minor quantities of LPG from Russia. There are no exports of either crude oil or refined products.

In 1999 the government set up a monopoly for the import and export and retailing of crude oil and refined products, but it was abolished in 2002. There are currently about 60 companies engaged in imports and retailing of refined products, of which the largest one is Gazpromneft-Asia, a 100% affiliate of Gazpromneft (Russia). Gazpromneft-Asia was set up in August 2006 when Gazpromneft purchased 100% of the stock of Munai Mirza from Russia’s Alliance group (which had a 50% stake in Munai Mirza) and an

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\(^{34}\) Source: KPC.

\(^{35}\) Source: kabar.kg, 6 April 2006, and Поляхова О.В. (составитель): Энергетические ресурсы Кыргызской Республики (Обзорная информация), 2003. Государственная патентно-техническая библиотека Кыргызской Республики, Отдел дифференцированного информационного обслуживания.
undisclosed third party. As a result of the transaction, Gazpromneft-Asia acquired and now owns and operates 74 gas stations (of which 14 outside Bishkek), 8 refined products depots and 2 LPG storage and distribution facilities. It also leases two more refined products depots.

At the time of the purchase of Munai Mirza, it controlled about 30% of the domestic market in Kyrgyzstan, including 70% in the capital Bishkek. After its acquisition by Gazpromneft-Asia, the market share of the company increased and is currently around 75% of the market, estimated at some 800,000 tons per year. Gazpromneft-Asia is aiming at improving the quality of the products on the Kyrgyz market and in late 2006 started offering 98-octane gasoline and winter grades of diesel fuel and LPG, all of which were virtually unavailable before.

V.2. Oil (Bituminous) Shale

Small deposits of oil-bearing shale have been located in southern Kyrgyzstan. However, these have been judged uneconomic and no plans exist to explore or produce bituminous shale.

V.3. Natural Gas

Overview

Kyrgyzstan produces minor amounts of natural gas (about 30 million cubic meters per year) from its modest proved resource base. Demand, on the other hand, is running at around 700 million cubic meters per year (gas supplies about 30% of the primary energy of the country). The difference is imported, mostly from Uzbekistan. Imports of gas weigh heavily on the trade balance of the country, wherein fuel and energy resources constitute more than 50% of imports. Kyrgyzstan hopes that exploration will be able to expand its domestic gas resource base and enable it to produce more from domestic fields, thus reducing import dependency, but for the time being there has been limited success in fining an alternative to imported gas.

The initial solution to the problem of assuring supplies of natural gas after the disintegration of the Soviet Union was to enter in barter agreements with Uzbekistan and Kazakhstan centring on the joint use of the water resources of the Syrdarya river, which is 80% fed by the Naryn river originating in Kyrgyzstan. The Naryn river resources were tapped in Soviet times for both irrigation and electricity generation, with irrigation water use prioritised (summer discharge from reservoirs preferred). Kyrgyzstan received compensation in the form of supplies of natural gas from Uzbekistan, coal and oil products from Kazakhstan and Russia, which fully satisfied energy needs of the Kyrgyz economy.

However, by 1993 Kyrgyzstan started prioritising electricity production, which meant that discharge would be mostly during the winter when power demand peaks. To resolve the problems associated with the joint use of the hydro resources and also

36 FSU Oil and Gas Monitor, 30 August 2006.
address the issue of energy supply, Kyrgyzstan, Kazakhstan and Uzbekistan entered into several agreements between 1992 and 1998. The 1998 agreement established priority for irrigation regime of the Naryn cascade and the principle of compensation to Kyrgyzstan in the form of mineral energy resources supplies equivalent to the energy generated during summer discharges. This clear and potentially positive scheme, however, was undermined by the lack of commitment to joint financing of the cascade and other infrastructure, which are used in the interest of all three countries. The agreement also did not provide any dispute-resolution mechanism. Another deficiency of this agreement was that it did not address issues other than irrigation and energy, i.e., environment, safety, etc.; it left without answer the question on changes in the cascade regime in case of fluctuations in demand for water energy caused by economic, social or climate reasons.  

With time the deficiencies of the 1998 agreement made it work worse and worse. The barter schemes of electricity-for-gas exchange between Kyrgyzstan and Uzbekistan and electricity-for-coal exchange between Kyrgyzstan and Kazakhstan could not continue. Climate and corresponding water demand fluctuations make this exchange unbalanced. If deficit in this exchange in some years becomes too large, this results in, for example, crisis stoppage of natural gas supply such as the cut-off by Uzbekistan in 1999. An indication of the decline in the barter deals is the value of Kyrgyz exports of electricity to Uzbekistan and imports of natural gas from Uzbekistan. In 2000, Kyrgyzstan sold electricity for $64.3 million and purchased natural gas for $61.1 million; in 2003 these exports and imports were just $8.6 million and $32.6 million correspondingly.

![Figure 14: Main gas pipelines in Kyrgyzstan.](http://www.winne.com/kyrgyzstan/to09.html)

Additional supply of gas is secured from Uzbekistan as in-kind payment for the services of Kyrgyzgaz in transiting of Uzbek gas to Kazakhstan. Kyrgyzgaz also serves some small parts of Uzbekistan territory in the Fergana Valley, where the borders between the two countries meander and several enclaves exist (Figure 14). However, before reaching Kyrgyzstan, the pipeline from Uzbekistan crosses Kazakh territory, where the service of transporting Kyrgyz gas was provided by Intergas, a private Kazakh company. In 2002, Intergas cut deliveries to Kyrgyzstan from Uzbekistan,

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38 See: UNDP Regional Bureau for Europe and the CIS. Country Background Study for the Kyrgyz Republic, pp. 32-35.
39 Ibid.
since the Kyrgyz government owed Intergas $3.2 million for gas transportation. At the same time, Kazakhstan owed Kyrgyzstan $22 million for electricity supplies.\textsuperscript{40}

Overall, Kyrgyzgaz pays for about half of the gas delivered from Uzbekistan in cash and about half with Kyrgyz goods, including water supplies. The complexity of the barter deals and the various transportation and transit arrangements underscore the necessity for transition to transparent, market-based cash transactions.

The government-owned JSC Kyrgyzgaz is currently responsible for most gas imports, the operation of all pipelines, and supplying most customers. As of January 1, 2004, the book value of its fixed assets was 309.2 million Som. The company operates 704.8 km of trunk (high pressure) pipelines, 565.3 km of mid-pressure pipelines, 1,581.4 km of low-pressure pipelines and about 900 gas distribution stations.

As part of the mid-term natural gas pricing policy for 2004-2006, OJSC Kyrgyzgaz was reorganised. The Northern Main Gas Pipeline Department of the company was handed over to KyrKazGas (KKG), a Kyrgyz-Kazakh joint venture set up in March 2004. An audit of KKG actual and estimated costs was conducted in the context of Northern and Southern gas supply facilities in the Kyrgyz Republic.

However, cross-subsidies remained for lack of equilisation between household and industry prices. Measures to reduce process and commercial losses were not implemented in full because households had been not fully provided with gas meters, medium pressure gas transmission lines were 100% cathodic protection free and gas equipment wear and tear was up to 80%.

At this point in time, there is an urgent need for investment in equipment replacement and rehabilitation. After 35-40 years in service, gas pipelines and equipment wear and tear has reached 80%. Completion of the second line of the 1020mm main gas transmission pipeline BGR-TBA should be resolved by attracting investment. By an expert estimate of TACIS INOGATE-9603, enhancing reliability of gas pipeline and process facilities located in Northern Kyrgyzstan alone requires USD 55.52 million. According to WYG International Limited (EU Central Asian Cooperation Programme), as of October 2006 the estimated completion costs for the second line of the 1020mm main gas transmission line BGR-TBA included construction in progress (37.2 km of pipe laid) and stood at USD 75 million, while new construction of 113 km of gas pipelines cost USD 125 million.

It should be noted that equipment wear and tear contributes to greater losses. In this connection, it is necessary to complete gas meter installations and unreliable gas pipeline/process equipment/structure replacement priorities.

At the present time, massive investment is required in replacement and rehabilitation of major equipment to ensure an acceptable level of maintenance, safety and reliability of gas supply and gas sector advancement. Inclusion of a profit margin in tariff would encourage companies to invest in cost reductions and better service. The energy regulator in the Kyrgyz Republic will include it in tariff if investors come up with realistic offers. In doing so, the rate of return to be included in tariff would be

\textsuperscript{40} Source: \url{http://www.winne.com/kyrgyzstan/to09.html}
negotiated with prospective investors and compliant with the terms and conditions of the agreement executed with them.

In addition, cross-subsidies between various consumer groups should be phased out, especially subsidising households for the account of businesses. Such pricing strategy will encourage efficient use of resources by preventing resource wastefulness and misallocation; facilitate optimum gas savings and consumption; and promote the more useful and productive gas uses. Households will have a chance to appraise their actual gas costs and adjust their consumption patterns and levels accordingly.

In 2004 and 2005, the price for natural gas was 42 USD/1000 m³. In 2006, the natural gas price rose to 55 USD/1000m³, a 31% increase. Effective January 2007, the purchase price has come up by 82% compared to 2006, with 1000 m³ now purchased at USD 100. In the mid-term, the gas transmission tariff across the Republic of Kazakhstan was 14.8% of the gas purchase price. In 2007, a tariff of 1.6 USD/1000 m³/100 km was negotiated with Intergas Central Asia. Third party access to the pipeline system is available and large customers and gas traders can use the services of Kyrgyzgas to transmit and distribute gas to end-users. For example, separate arrangements apply for the supply of gas to the Bishkek Central Heating Station and the thermal power plant in Osh, which are supplied under direct contracts with Uzbekistan, and for the transit of Uzbek gas via the Kyrgyz Republic to Kazakhstan.

The government is considering privatising Kyrgyzgaz and as a first step may split it in several companies responsible for the operation of the gas pipelines, supply and distribution. In July 2000, the World Bank approved a $5-million credit to Kyrgyzstan under a technical assistance project to reform the country's fuel and energy sector, and in particular for strengthening the financial position of Kyrgyzgaz and purchasing equipment such as gas meters and spare parts.

The main functions of Kyrgyzgaz are seen by the government as the provision of gas transportation and supply of gas to consumers, the maintenance, development and operation of the pipeline system, and the transit of gas from Uzbekistan to Kazakhstan.

Kyrgyzgaz supplies gas to industry, boiler rooms in Bishkek used for district heating and hot water supply, and the residential and commercial sector. In the industrial sector, its main customers are a brick factory, a canning factory, the Kant cement plant, the Kara-Balta distillery, and a milk processing facility in the north of the country; in the south, the main industries supplied by Kyrgyzgaz are the Kadamiaantimony factory, the Haidarkan mercury factory, and the Mailisu lamp factory. In Bishkek, Kyrgyzgaz supplies with gas twelve boiler rooms. The company has some 245,000 residential and commercial customers across the country, most of them in the capital Bishkek, but also in the Chui province, Djalal-Abad, Osh and Osh region, Kara-Su, and Batken and Batken region. Overall, Kyrgyzgaz handles about 500 million cubic meters of “own” gas and transports for other entities (particularly the heat-and-power plants in Bishkek and Osh) about 200-250 million cubic meters annually which they contract directly with foreign suppliers.\textsuperscript{41}

\textsuperscript{41} Source: \texttt{http://www.winne.com/kyrgyzstan/to09.html}
consumption in the country is in the north around Bishkek (about 500 million cubic meters annually), with the remainder primarily in Osh and Osh region.

Prices for gas and its transportation are set by the State Department for the Energy Sector Regulation at the Ministry of industry, energy and fuel based on calculations by Kyrgyzgaz and KyrkazGaz.

A major problem for Kyrgyzgaz is the poor metering, accounting and collection, which has resulted in the accumulation of arrears by industrial and residential and commercial customers. In 2002-2003, as meters continued to be installed and payment from customers was pursued with greater rigor including via the courts, collection for current supplies improved and the amount of debt stopped growing. As a consequence, the company was able to show a book profit of some 14 million Som in 2002 and distribute dividends. However, arrears stood at more than 275 million Som, including some 145 million owed by residential customers. In 2003, Kyrgyzgaz waived the fee for installing gas meters at residential customers’ premises and the rate of installing meters increased three-fold; nevertheless, about 50% of residential customers still do not have meters and pay the gas bill on the basis of rather arbitrary calculations and assumptions for energy used for heating, hot water and cooking. Installation of meters continues, but it may take another 7-8 years achieve satisfactory coverage.

The net result of the inadequate collection, coupled with relatively low prices for natural gas set by the government, have drained the ability of Kyrgyzgaz to invest in new projects and even keep the system operational and reliable. Only urgent repairs have been carried out, such as the replacement of corroded sections of the main lines supplying gas to Bishkek and certain other locations. In 2006, work was carried out on the Tashkent-Bishkek-Almaty line for the first time in 30 years, with the help of an investment from Kazakhstan. A joint venture (KyrKazGaz) laid down a 25-km emergency line. Kazakhstan had already invested $2.5 million in pipeline rehabilitation in Kyrgyzstan and the total cost was estimated at $17 million.42

The precarious financials of Kyrgyzgaz have rebuffed investors, despite some preliminary interest from Chinese companies. Kazakhstan, on the other hand, is interested to gain a concession over the main gas transit pipeline in the north of the country.43 By the end of 2004, accounts receivable of Kyrgyzgaz were about 730 million Soms and debts of Kyrgyzgaz to gas suppliers reached 600 million Soms.44 The company was on the verge of bankruptcy.

In 2004, the government discussed plans about the restructuring of Kyrgyzgaz involving the partial privatisation of the company. The idea was to spin off a gas transportation company and privatise gas distribution. The new transportation company would own the main gas pipelines and two pumping stations supplying gas to the north and south of the republic. The company was expected to create several smaller subsidiaries at a later date, but remain 100% government-owned. At the same time, several distributions companies operating the low pressure lines (12 bars and less) were to be set up and privatised.

42 FSU Oil and Gas Monitor, 18 January 2006.
The restructuring was seen as a solution to the financial problems of Kyrgyzgaz. The company acknowledges that it does not have sufficient funds to fully restore the trunk pipelines and the mid and low pressure gas distribution network, which will require significant investment. The total investment needed to modernise Kyrgyzgaz’s physical assets was estimated at the time at $522 million, an amount clearly beyond the company’s reach. Restructuring was expected to partially help, as more revenue would be generated from the company’s gas transportation operations, tax revenue would increase and cross-subsidising in the distribution chains would stop. At the same time, the state would retain control of the gas transportation system and would continue to set tariffs for natural gas.45

In 2005-2006, more trouble was on the way as Uzbekistan cut supplies to North Kyrgyzstan and told Kyrgyzgaz that the gas will be supplied via Kazakhstan’s Kaztransgaz instead. The subsequent contract signed in August 2005 meant that Uzbek gas continued to be shipped to parts of southern Kyrgyzstan, but not to the north. On the other hand, Kazakhstan asked Bishkek to first pay off a $17.5-million debt to Astana in order to ensure future Kazakh supplies of gas.46

At the time, Uztransgaz, the Uzbek company which acts as a supplier to Kyrgyzstan, said it would only start supplying gas if all debt for past deliveries is promptly paid (about $13 million) and all future deliveries are pre-paid on a monthly basis.47 In 2006, Uzbekneftegaz and Kyrgyzgaz agreed on a contract for the supply of 707 million cubic meters in 2007 on these terms. In the contract, the export price of gas was raised to $100 per 1,000 cubic meters, almost double the price for 2006 ($55 per 1,000 cubic meters) and about 2.5 times more than in 2004-2005 ($42-43 per 1,000 cubic meters). Domestic prices in Kyrgyzstan were accordingly expected to increase by 50-60% to $160 per 1,000 cubic meters, up from $103 per 1,000 cubic meters charged on average in 2006.48 The government is consistently stressing the need to settle arrears and improve collection for deliveries of gas, but the extra cost of supply has put additional burden on Kyrgyzgaz and reduced even further its ability to maintain and upgrade the gas supply system.

The greatest hopes of Kyrgyzstan in its cooperation with foreign partners in the gas sector seem to now be related to the development of its partnership with Russia. In 2003, the government of Kyrgyzstan and Gazprom (Russia) entered into a 25-year agreement on cooperation in the gas industry. In 2004, the agreement was supplemented with a plan of priority measures for its implementation. In May 2007 the Ministry of Industry, Energy and Fuel Resources of Kyrgyzstan entered in another framework agreement with Gazprom, covering the principles of exploration of oil and gas bearing areas in Kyrgyzstan.49 Kyrgyzstan has suggested that Gazprom conduct prospecting operations for hydrocarbons in promising areas with Kyrgyzneftegaz (KNG), wherein KNG would contribute about $6 million in assets. Kyrgyzstan also suggested to Gazprom to obtain a 50% stake in Kyrgyzstan’s gas pipelines and underground gas storage facilities. In turn, Gazprom is to build an oil refinery and

assure oil supplies for it.\textsuperscript{50} Hopes are that increased domestic supply will offset at least partially some of negative effects of the rising cost of import gas.

Another project which may help provide diversity and security of gas supplies to Kyrgyzstan is the Turkmenistan-China gas pipeline. In late 2006, China signed on the agreement, which should result in the construction of 7,000 km, 30 billion cubic meters per year pipeline, to become operational in 2009. Along with Uzbekistan, Kazakhstan, and Tajikistan, Kyrgyzstan is one of the possible transit countries along the yet-to-be selected route of the pipeline.\textsuperscript{51}

\section*{V.4. Coal}

Kyrgyzstan is endowed with considerable coal resources. Coal is found in the Issyk-Kul, Naryn, Djalal-Abad, Osh and Batken regions. In total, there are about 70 known coal fields in four coal basins (South Fergana, Uzgen, North Fergana, and Kovak) and three coal areas (Alay, South Issyk-Kul, Alabuka-Chatyrkul). Coal seams vary at different fields in number from 1 to 50, and in thickness – from 0.5 to 100 meters. Known, probable and possible coal resources are estimated at 6.73 billion tons of hard and bituminous coal and lignite. Recoverable coal resources are estimated at 1.3 billion tons, placing Kyrgyzstan fourth in rank in the former Soviet Union after Russia, Kazakhstan, and Ukraine. The largest coal field is Kara-Keche, with recoverable resources by open pit mining of about 230-300 million tons.

Hard coal is found in the North Fergana and Uzgen basins, the Alabuka-Chatyrkul area and at the Dzergalan coal field in the eastern part of the South Issyk-Kul area. Bituminous coal is found in the South Fergana and Kovak basins, and in the Alay and South Issyk-Kul coal bearing areas.

From 1940 to 1970, coal mining was carried out at 7 underground and 5 open pit mines with a total capacity of 3.5 million tons per year. During the 1970s and 1980s, 10 underground mines and two open pits were in operation. Coal output peaked in 1979 at 4.8 million tons. In the 1980s the coal industry alone was responsible for more than 50\% of the country’s mining and industrial output, and it employed almost 60\% of the mining and industrial labour force of Kyrgyzstan.\textsuperscript{52}

However, coal production declined to around 3.7 million tons by 1990, and then even faster. By 2000 it was down more than 10-fold to about 400,000 tons per year. At present, private companies are engaged in coal production at small mines located throughout Kyrgyzstan. The Ak-Ulak Open Pit Co, (majority owned by the government) operates at the largest Kara-Keche mine, located in the Kavak Basin. The mine could supply with coal all of the northern parts of the country. Current capacity is about 370,000 tons per year, but plans call for expansion up to 1 million tons per year. For the purpose, the construction of a railroad to the mine began in 2000.

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\textsuperscript{50} FSU Oil and Gas Monitor, 26 July 2006.
\textsuperscript{51} FSU Oil and Gas Monitor, 4 October 2006.
\textsuperscript{52} Valentin Bogdetsky (editor), Vitaliy Stavinskiy, Emil Shukurov and Murat Suyunbaev: Mining Industry and Sustainable Development in Kyrgyzstan (November 2001), IIED and WBCSD (2002), p. 56.
\end{flushright}
Estimated coal demand in Kyrgyzstan could at best increase to about 3 million tons. Current consumption is around 1.1-1.3 million tons per year, of which some 0.7-1 million tons of imports. Imports could easily be offset by domestic production. Nevertheless, the country is a net importer of coal (almost exclusively from Kazakhstan), at a price of $26-28 per ton. Kazakhstan provides more than 90% of coal supply, almost all of it high-grade coal from the Karaganda basin. The largest consumer of coal in the country is the thermal power plant in Bishkek.53

The leading coal mining company is the state-owned Kyrgyzkomur (Kyrgyz Coal), initially set up as a holding entity for the coal mines and other related assets. Already in 1991-1992 the mines started operating independently of the holding, setting their own output targets and arranging for the sale of coal without the holding’s participation. In 1992, the holding was re-organised as a state-owned company, which took on the debt assigned to the holding, but was unable to service it. Output continued to plummet and in 2003 the company went bankrupt.

At this time, Kyrgyzkomur is primarily a service company, with major mining operations structured as separate enterprises, although nominally still reporting to Kyrgyzkomur. In the meantime, most of the coal mines have been either privatised or the operating companies have been put up for management-employee buy-out. By 2004, only nine of the sixty licensed coal mining operations in the country (50 of them located in the south) continued to be in the government’s domain. However, these include the best open-pit mines (altogether five) and most of the production is still reported by Kyrgyzkomur.

The hopes of the company are now related mostly to the development of the Kara-Keche mine located in the Naryn region, about 370 km away from Bishkek, where four separate enterprises have been established (state-owned Ak-Ulak, and the private Besh-Sary-K Ltd., Charbon JSC, and Ak-Jol Ltd. open pit mines). Additionally, the private Demilge-Plus Ltd. also mines coal at the field. The field has proved reserves of over 600 million tons, some 300 million of which can be mined in an open pit.

The current capacity of Kara-Keche is around 350,000 tons per year. In 1999, a special tri-party agreement was signed between Vikanat Ltd., Kyrgyzenergo and the State Enterprise Ak-Ulak Open Pit Mine, by virtue of which Ak-Ulak got equipment worth some $4.3 million. The mine’s expansion depends on the availability of transportation for coal. In 2000, the construction of a 204 km railroad line began from Balykchi to the mine at an estimated cost is $360 million. Due to lack of funding, it is unlikely to become operational any time soon. However, a new 35 kV power line to the mine was put in place in 2001.

In 2005-2006, Ak-Ulak open pit mine saw attempts for “spontaneous” takeover by the employees, who insisted on transferring all already privatised assets of the open pit mines back to the state and to local businessmen from the Dzumagal region, and production was discontinued for several months. In 2006, the government considered either establishing a 51-49% partnership with private investors at Kara-Keche, or

Market Structure and Privatisation by Subsector

regaining 100% government control by stock buy-out of investors over a three year period. Several decrees were adopted, until a decision was taken to resume operations at Kara-Keche with the participation of private partners. Overall, the mine has continued to be in precarious financial and operational position. Despite some interest from Russian, Turkish and German companies, hopes that investors would step in and help develop its reserves have so far failed to materialise.

Operations at many other mines across the country have all but ceased, due to non-compliance to technical and safety requirements. Apart from the Kara-Keche mine, active companies include the state-owned open pit Tash-Kumyr located in the south and a number of small operators (Demilge Plus Ltd., Suluktashahtakurulush JSC., SuluktaKomur JSC, Tegene Ltd., Kok-Belkomur Ltd., etc.).

Kyrgyzkomur is still exceedingly dependent on government funding for its development programs and also for a large part of its operational expenses, which include a bloated staff. Most of the available equipment is heavily worn and unreliable, maintenance is expensive and inadequate. A reason for Kyrgyzkomur’s troubles is the specific market on which it sells the output. The largest consumer of coal is the Bishkek heat and power plant (HPP) owned and operated by the government-controlled power company, Kyrgyzenergo. Bishkek HPP uses about 750,000 tons of coal per year, but of that only about 150,000 tons is mined in Kyrgyzstan. Other clients of Kyrgyzkomur include government-funded entities that often fail to pay for deliveries. Overall, Kyrgyzkomur continues to make loss and receive subsidies to stay in business.54

V.5. Electricity

Overview

In a 1997 study, the World Bank points out that Kyrgyzstan has large hydro potential, an estimated total of 163 TWh/yr, but only 73 TWh/yr is technically feasible and 48 TWh/yr economically exploitable, of which roughly 12 TWh is in use now. Hence, in the FSU, Kyrgyzstan was assigned the role of providing hydro generation to the regional interconnected system. The total usable potential of Kyrgyzstan's hydropower is up to approximately 26,000 MW,55 most of it in the basins of the rivers Naryn, Sary-Dzhaz, Chatkal and Chu. The Naryn river basin has the best hydropower potential. Overall, it is possible to construct hydropower plants at more than 100 locations.

A state-owned company operates 19 hydropower plants (HPPs). It also runs two cogeneration plants (CHPs), one in the city of Bishkek (587 MW installed capacity) and one in Osh (50 MW installed capacity). The large HPPs are on the Naryn river, all downstream from the large Toktogul reservoir, and have a total installed capacity of 2,770 MW. In Soviet times, the plants operated mostly during the

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summer, since the primary purpose of the Toktogul reservoir was to provide water for irrigation in Uzbekistan and Kazakhstan. At the time, Kyrgyzstan was supplied with fossil fuel by other republics in the FSU.

With independence, priority was given to Kyrgyzstan’s own needs for electricity and the plants began operating mostly in winter, when electricity demand is high and water has to be stored for summer. This caused extra discharge from Toktogul and claims by Uzbekistan and Kazakhstan about flooding downstream. Bi-party and tri-party agreements were signed, providing a framework for cooperation in the use of the hydro resources of the Naryn river basin, but the agreements often left many issues open and implementation is poor.

There is potential for development of more hydropower generation (2,200 MW) further upstream from the Toktogul dam. Some construction has taken place since independence, but high investment costs have caused the projects to be put on hold. However, Kyrgyzstan’s own market is relatively small and the country already produces more electricity than it consumes. Consequently, any major investment to exploit the hydropower potential can only be justified by electricity exports. Southern Kazakhstan and Uzbekistan are the available markets for Kyrgyzstan. A larger regional cooperation project involving exports to Pakistan, Afghanistan and China is also possible.

The country is connected to the other Central Asian republics by the Central Asian Integrated System, 500-kilovolt lines, controlled by the Tashkent dispatching centre. The transmission and distribution system has serious problems attributable to natural disasters, overloading, and its age; reliability is thus poor, especially in the districts of Djalal Abad, Osh, Naryn, and Issyk Kul Lake. Overloading occurs during the winter because a large part of the population uses electricity for space heating for two reasons: there is no district heating network outside Bishkek and Osh and electricity is cheaper than other sources of heat.

Small hydro projects used to contribute to the total hydro potential during the 1950s and 1960s, but when the large HPPs on the Naryn cascade came into operation, most of the small HPPs were abandoned. The World Bank has identified 19 possible small hydroelectric plants with a 120 MW total installed capacity and 530 GWh mean annual production, which will require an investment of some $145 million.56

The main issues which deter investors from participation in Kyrgyzstan’s electricity sector is the difficult access to markets and problems with the regulatory and legal base.

**Electricity Generation Plants**

The owner and operator of the generation plants is the state-owned JSC “Electricheie Stancii” (Electric Power Stations, EPS). There are a total of 23 power plants with total installed capacity of 4,281 MW, including 21 hydropower plants with total installed capacity of 3,744MW and two heat-and-power plants with total installed capacity of 638 MW.

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56 Ibid.
In 2001, EPS was reorganised and affiliates of EPS created as separate companies. As of mid-2007, EPS had the following affiliated companies:

- Toktogul HPP cascade enterprise;
- Enterprise of HPP under construction;
- At-Bashi HPP enterprise;
- Bishkek CHP enterprise;
- Osh CHP enterprise.

The Toktogul Cascade Enterprise initially consisted of three HPPs (Toktogul – 1,200 MW, Kurpasay – 800 MW, and Uch-Kurgan), with installed capacity of 2,180 MW, but in 2002 the Uch-Kurgan HPP (installed capacity 180 MW) was taken out of the Toktogul HPP Cascade affiliate of EPS and assigned to the Enterprise of HPP Under Construction. The reason was that the Uch-Kurgan HPP was in need of extensive rehabilitation.

The Enterprise of HPP Under Construction includes four HPP: Tash-Kumir HPP (operational, 450 MW), Shamaldy-Say HPP (operational, 240 MW), Kambarata HPPs No. 1 (1,900 MW) and No. 2 (360 MW) of which only No. 2 is under construction (about 25% complete), and the Uch-Kurgan HPP (180 MW). The operational HPPs in the enterprise were commissioned after its establishment, but still report to the affiliate.

The At-Bashi HPP Enterprise consists of At-Bashi HPP (40 MW).

The Bishkek CHP Enterprise operates a 666 MW combined heat-and-power plant in the capital. The plant was designed to use as fuel imported hard coal from Karaganda in Kazakhstan and from Tash-Kumyr in Kyrgyzstan in a 75/25 proportion. Coal is currently 66% of total fuel input, while natural gas imported from Uzbekistan provides 33% of the fuel. In recent years, the quality of coal from Karaganda has deteriorated, while Tash-Kumyr all but discontinued supplies and the plant reports degradation of capacity. Some work was carried out to enable the use of other grades of coal from Kazakhstan (Ekibastuz and Maikuben), as well as bituminous coal from the Kara-Keche mine in Kyrgyzstan. The plant produces annually about 850 million kWe of electricity and about 2,200 Gcal of heat.

The Osh CHP Enterprise operates the Osh CHP (50 MWe), designed to generate electricity and supply heat to the nearby cotton processing facility, other industries, and the town of Osh. The plant was designed to operate on natural gas with fuel oil grade 40 or 100 as a back-up fuel. Gas was supplied from Kyrgyzstan’s fields in the Fergana Valley (which were depleted by 1973) and fuel oil from Uzbekistan. At the moment, the roles are reversed: the plant operates mainly on fuel oil from the Djalal-Abad refinery in Kyrgyzstan with Uzbek gas as a back-up fuel.

The Osh CHP Enterprise also has a separate boiler facility in the town of Osh, constructed in 1984 and designed to operate on coal. In 1995, as coal became unavailable, the boilers were converted to electricity.
The following are the major plants operated by EPS (total 3,626 MW):

- Combined heat-and-power plants (total 716 MW): TPP Bishkek (666 MW) and TPP Osh (50 MW);
- Hydropower plants (total 2,910 MW):
  - At-Bashi HPP (40 MW);
  - Toktogul Cascade plants (2,180 MW): Toktogul HPP (1,200 MW), Kurpsai HPP (800 MW) and Uch-Kurgan HPP (180 MW).
  - Shamaldy Sai HPP (240 MW);
  - Tash Kumyr HPP (450 MW).

The Kambarata 2 HPP (360 MW) is under construction.

In the future, EPS plans to continue prioritising energy over irrigation in the use of the hydro resources of the country. The largest possible projects for new HPPs generally involve the construction of a multi-year balancing reservoir exclusively intended for power generation and a cascade of 2-4 HPPs downstream from each dam, operating under all types of load (base, sub-peak, peak). Among the projects that are believed to be the best are:

1. Kambarata HPP 1 and Kambarata HPP 2, with total installed capacity of 2,260 MW;
2. Upper Naryn Cascade (Alabugin HPP, Naryn 1, 2 and 3 HPP), with total capacity of 380 MW;
3. Suusamyr-Kokomeren HPP Cascade (Kokomeren and Suusamyr HPPs with total capacity of 1,500 MW;
4. Kazarman HPP Cascade (Ala-Bukin, Karabulun, and Toguztorouz HPPs), with total capacity of 1,000 MW;
5. Kulanak HPP Cascade (Uchkun, Aktalin, and Dzhilanaryn 1 and 2 HPPs), total installed capacity 350 MW.\(^{57}\)

The World Bank has also identified 19 possible small HPP projects, representing an installed capacity of 120.1 MW, an annual energy production of 530.7 GWh, and an investment cost of $146.1 million. According to their geographical area, these projects are:

1. Three projects on the Talas river, with an installed capacity of 23.4 MW, an annual energy production of 73.3 GWh, and an estimated investment cost of $26.7 million.
2. Three projects on the Issik-Ata river with an installed capacity of 5.4 MW, an annual energy production of 35.7 GWh, and an estimated investment cost of $26.7 million.
3. Two small projects on the Chatkal River (Sandalask-1, -2) with an installed capacity of 25 MW, an annual energy production of 147 GWh, and an estimated investment cost of $30.4 million.

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\(^{57}\) Поляхова О.В. (составитель): Энергетические ресурсы Кыргызской Республики (Обзорная информация), 2003. Государственная патентно-техническая библиотека Кыргызской Республики, Отдел дифференцированного информационного обслуживания.
4. Two or three hydroelectric projects (Karakol, Ak-Shoui) with an installed capacity of 6.4 MW, an annual energy production of 43.7 GWh, and an estimated investment cost of $9.6 million.

5. Eight small projects dispersed around the country with an installed capacity of 59.9 MW, an annual energy production of 225 GWh, and an estimated investment cost of $71.3 million.58

Figure 15 provides data on the location of key energy generation assets in Kyrgyzstan.

**Electricity and Heat Networks**

The high voltage network of the country (≥50 kV) is owned and operated by the government-controlled National Power Grids Co. (NPG). It also manages inter-system high voltage transmission lines with neighbouring countries, dispatches the national electric network and assures the reliable operation and the safety of power facilities in compliance to standards and rules. There are 541 km of 500 kV lines, 1,357 km of 220 kV lines, and 4,466 km of 110 kV lines in the country.59 The high voltage network is part of the united Central Asia electricity system, dispatched from Tashkent (Uzbekistan).

Most of NPG’s stock (80.5%) is held by the Kyrgyz Government, 13% by the Social Fund, and the remaining 7.5% belong to minority private investors (physical and legal entities), of which there are some 15.

There are four electricity distribution companies set up on a regional basis:

- Sever Electro serves Bishkek (distributes about 42% of electricity in the country);
- Vostok Electro serves Issik-Kul and Naryn oblasts (distributes about 18% of electricity);
- Osh Electro serves the city of Osh, Osh and Batken oblasts (distributes about 26% of electricity);
- Djalal-Abad Electro serves Djalal-Abad oblast (distributes about 14% of electricity).

The four distribution companies own and manage the 0.4-35 kV lines, of which there are more than 65,000 km, and serve more than 1.1 million households and other consumers.

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58 World Bank, op. cit.
Distribution companies are obliged to provide uninterrupted electric power to all consumers in their respective regions, except in areas served by generating companies, if there is a contract for direct supply. The distribution companies are also obliged to buy electricity from generators, except where they themselves generate electricity. The distribution companies also can import and export electricity via networks rated at 35 kV or less.

Distribution companies provide collection services for consumers of electricity, which requires significant financial assets and modernisation of metering and accounting. There is still considerable amount of loss and non-payment persists, which poses serious financial problems for the industry.\(^\text{60}\)

There are plans to proceed with the privatisation of transmission and distribution of electricity, with Sever Electro to be offered to investors first.

In years of economic crisis, the government had to reduce imports of gas and oil. As a result, the consumption of electricity in the country has sharply increased, overloading an aging network. The pressure is tremendous on the distribution networks, which are in poor condition, poorly maintained and overloaded. At the same time, collection levels are low and consumers steal energy or accumulate big debts. In total, 40% of all generated energy is lost. Technical and commercial losses in the sector account for a very large part of the country’s fiscal deficit and have an overall negative impact on the economy.

\(^{60}\) Ibid.
To solve these problems, an energy sector reform programme was initiated in 2000 at the instigation of the World Bank. As part of the reform the de-centralisation of the sector was conceived, and, in 2001, the state owned electricity company Kyrgyzenergo was unbundled into seven companies: generation, transmission, district heating for Bishkek and four distribution companies.

Main components of the current reform are the new tariffs policy and participation of the private sector in the distribution companies. At the same time, electricity tariffs have been increasing from 0.6 cents in 1999 to one cent in 2002 per kilowatt per hour. The public is debating whether to increase the tariffs further to 2.3 cents to make the electricity system financially viable in the Kyrgyz Republic.61

In order to reduce commercial losses SECO helps the Kyrgyz government to enhance payment by private users through better metering and collection. Within this component SECO co-finances the World Bank's project Power and District Heating Rehabilitation Project and provides hardware and software systems for better billing, collections systems, management of arrears and associated training and business advisory services to the four distribution companies.

The commercial losses reduction component recently was enhanced by another project on a public awareness campaign about new electricity tariffs. At the moment, reform of the electricity sector is hampered by the sensitivity of electricity costs in the public's opinion. People are mainly unaware of the situation in the energy sector and they share the misconception about the country's inexhaustible natural resources, and the belief, which has remained since Soviet times, that electricity should be almost free of charge. In order to change their attitude, SECO financed an information campaign explaining the new tariffs policy. The Kyrgyz Tariff Policy and Utility Reform Project (DFiD) implemented this project. Through round tables, articles in the local media, TV and radio programmes, the public learned why the tariffs need to be increased and what social protection measures exist in order to compensate the most vulnerable groups for tariff increases.62

Efficient consumer protection policy implementation requires concerted action by executive authorities, local self-government authorities and consumer associations; therefore, as has been mentioned above, the State Energy Agency (SEA) of the Kyrgyz Republic Government accords priority to public hearings on various matters, public awareness raising on existing model agreements and measures taken by the SEA to reduce electricity losses.

In cooperation with the Tariff Policy project (DFiD, United Kingdom, and SEKO, Switzerland), the SEA held energy round tables throughout the Republic (Talas, Kara Balta, Balykchi, etc.) in 2003-2004. In addition, jointly with local governments, self-government authorities, public organisations, as well as the DFID Tariff Policy project and InterBilim, an NGO, the SEA conducted a series of round tables with the public in Karabalta, Talas and Issyk-Kul Region. The round tables were attended by representatives from various districts in such regions, ayil okmotu’s, district electric

62 Ibid.
grids and electric grid companies and discussed urgent problems of energy supplies, energy bill payments and social safety net issues.

To raise public awareness of the energy sector situation and ensure transparent decision-making, the State Energy Agency of the Kyrgyz Republic Government held USAID-funded public hearings in all regions in the Republic, *inter alia*, in Bishkek, Osh, Djalal Abad and Karakol, commencing on December 18, 2006. The topic for discussion was electricity losses and the efforts made by the SEA in that area and whether it was possible to introduce a uniform tariff for households. The public was informed of loss reduction measures devised by the SEA, reporting formats to be filled out by energy companies to monitor power outages and quality of service provided to electricity users; electricity price structure, and legislative amendments on energy matters of direct concern to the public. A constructive dialogue revealed a variety of opinions on such matters, but the majority said that the introduction of a uniform electricity tariff was possible, specifying that it would provide a lot of advantages to the consumer, was clear to apply and enabled the consumer to control electricity consumption and bills; moreover, it would leave no chance for dishonest controllers to add to the electricity bill without reason.

From the beginning of 2005, the SEA conducted public hearings throughout the country on the current status of the energy sector, ways to reduce electricity losses and increase collection rates; consumer and utility rights and obligations. After the inception of the National Agency the subject of introducing a uniform electricity tariff re-emerged. With USAID financial support, the National Agency held a series of public hearings in all of the Republic’s regions on introducing a uniform electricity tariff during 2006.

While privatisation in the electricity sector is still to go ahead in earnest, in 2007 two important laws were voted that will speed up the process. On 22 June 2007 the parliament adopted amendments to the third phase of the plan for the break-up and privatisation of Kyrgyzenergo (as reorganised in 2001) and introduced a fourth phase to the reorganisation plan. By virtue of the law, it is possible now to establish as a pilot project a concession on Sever Electro, the largest distribution company. Other possible options include the establishment of a management trust or the sale of a package of its stock. Upon privatisation, the investor will receive a license and the tariff will be set by the government. The government will also write off the tax arrears of Sever Electro. At the moment Sever Electro is 7% privately owned; after the completion of the transaction, the share of the government is expected to fall to 40%.\(^63\)

Earlier in June 2007, the parliament adopted a separate law about the finalisation of the construction of the Kambarata 1 and 2 power plants and assigned a special status to these two projects that allows the participation of private domestic and foreign investors. Interest in the completion of the Kambarata power cascade has been expressed by Russian and Kazakhstan companies.

Imports and Exports

The Eurasian Economic Community (Kyrgyzstan, Kazakhstan, Kyrgyzstan, Russia and Tajikistan, with Ukraine, Moldova and Armenia participating as observers) has been discussing co-operation in the power sector for some time. More recently, EurAsEC officials have also begun discussing proposals for the creation of a common electricity market. In April 2005, for example, the group's energy policy council, which reports to the integration committee, met to address issues related to grid connections between member states. They also discussed draft agreements on the formation of a common power market. EurAsEC representatives have also been involved in discussions on integrating power networks throughout the CIS. At the Sochi Summit of EurAsEC in mid-2006, the six members agreed to move forward with plans for the establishment of a customs union and a common energy market.

In early 2007, for the first time since electricity exports from Kyrgyzstan started, the government decided to abandon the barter deals with neighbouring countries for exchange of water and electricity from Kyrgyzstan for gas and coal from Uzbekistan and Kazakhstan. Instead, the government started holding tender rounds, with the first one held on 21 March 2007 at a starting price of 1.5 US cents per kWh.

Kyrgyzstan’s long-term hopes are linked to the Central Asia/South Asia Electricity Trade Project (CAS), wherein Tajikistan and Kyrgyzstan will provide hydropower and coal resources and Pakistan and Afghanistan are potential import markets, particularly for cheaper hydroelectricity. In CAS, Tajikistan will provide about 1,000 MW round the year from Rogun and Sangtuda HPPs (under construction), and Kyrgyzstan will contribute similar quantity of power. Progress achieved so far includes conference of the energy ministers, IFIs and interested private investors held in Islamabad on 8-9 May, 2006, where it was principally agreed by all the parties to start feasibility studies. A Working Group with a focal person from each country was established and it was decided to hold Ministerial meeting after every 6th month. ADB and IBRD principally agreed to finance technical/economic and financial/legal risk assessment studies respectively. The project is progressing as agreed.

In late 2006, Russia indicated that it would like to involve in the project another multilateral group, the Shanghai Cooperation Organisation (SCO). At the Dushanbe summit in mid-September 2006, a proposal for the formation of an “energy club” for joint work on electricity and natural gas delivery systems was met with enthusiasm by the Russian delegation. SCO members discussed proposals for building high-voltage lines in Central Asia and from Central Asia to markets in South Asia. The “club” within SCO would help diversify export routes, reduce gas and electricity prices, reduce political risks and create a self-sufficient energy block. Russian investors have already agreed to complete the construction of the Sangtuda-1 HPP in Tajikistan and are preparing agreements on the Rogun HPP in Tajikistan and the Kambarata HPPs in Kyrgyzstan. Inter RAO EES, which is 60% owned by Russia’s United Energy

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64 CE/FSU Power Monitor, #9 2006.
65 Ibid., #34 2006.
67 Presentation by Mohammad Yousuf Memon, Additional Secretary, Ministry of Water and Power, Government of Pakistan, on 21 March 2007 in New Delhi.
Systems and 40% by Rosenergoatom, has begun negotiations with the Pakistani government about a 30-year, $75-90 billion contract for exports of electricity from Central Asia, at a price of $0.05 per kWh. Inter RAO EES plans to generate electricity at Ekibastuz-2 coal-fired plant (Kazakhstan) and the Sangtuda and Rogun HPPs in Tajikistan and construct several 500 kV transmission lines. Since Inter RAO EES’s new plants in Central Asia may not generate enough power to export to Pakistan, Inter RAO EES may have to buy electricity on the local markets, including from Kyrgyzstan, for export to Pakistan.\(^{68}\)

On the other hand, the US government has put forward its own plan for Central Asian electricity networks. It calls for the construction of 500 kV line from Tajikistan and Kyrgyzstan to South Asia, to be funded by private investors. In early May 2006, sources in the US clarified that the US Trade and Development Agency (USTDA) was planning to host a summit on the Central Asian power sector.\(^{69}\)

Other parties interested in exports of hydropower from Central Asia include Iran and China. Iran has an observer status in SCO and is interested mostly in electricity from Tajikistan for its own use and for exports to Pakistan. Iran is also active in the Economic Cooperation Organisation, whose ten members are from Western and Central Asia. At the conclusion of the Baku summit of ECO in May 2006, Iran pointed out that it has already linked its grid to that of several other ECO members, including Afghanistan, Turkey, Azerbaijan, Pakistan and Turkmenistan, and can therefore act as an electricity hub in the region. The Iranian representative pointed out to European experience and the possibility to use in ECO know-how and information about rules and regulations covering the European market. Iran hoped to see an electric grid linking ECO’s members at some point of time.\(^{70}\)

In the meantime, Kyrgyzstan has been talking to China about investment in the Kambarata facilities.\(^{71}\) In late July and early August 2006, a group of officials from the State Grid Corporation of China (SGCC) visited Bishkek and signed a Letter of Intent with Kyrgyzstan’s Electric Stations Co. SGCC, Electric Stations Co. and the National Electric Grid of Kyrgyzstan established a joint working group for identifying projects of mutual interest. These include the establishment of a coordinated system for the Sarydzaz and Kambarata HPP, a new transmission line to Kashgar in Western China and the reconstruction of Bishkek’s CHP. In 2005, Kyrgyz officials said the two sides had agreed on the construction of a new HPP and several other infrastructure facilities in exchange for access to Central Asia’s natural resources.\(^{72}\) To enable export of up to 1 billion kWh per year to southern Xinjiang in China, a new high voltage line would have to be constructed.\(^{73}\) Kyrgyzstan is already exporting small amounts of electricity to China – about 1 million kWh per year.\(^{74}\)

\(^{68}\) NewsBase, 4 October 2006.
\(^{69}\) NewsBase, 3 May 2006.
\(^{70}\) NewsBase, 31 May 2006.
\(^{71}\) NewsBase, 11 October 2006.
\(^{72}\) NewsBase, 9 August 2006.
\(^{73}\) NewsBase, 14 June 2006.
\(^{74}\) NewsBase, 26 April 2006.
As part of parallel operations of the Unified Power System (UPS) of Kazakhstan and the Central Asian Interconnected Power System, Kyrgyz electricity transits across the Republic of Kazakhstan through KEGOC power grids via a Kyrgyzstan-Kazakhstan-Kyrgyzstan route in accordance with the October 29, 2003 agreement between JSC KEGOC and OJSC Electrical Stations.

Pursuant to Kyrgyz Republic Government Decree No. 526-p, dated December 12, 2005, electricity transit through power grids in Central Asia, Kazakhstan and Russia is the responsibility of OJSC NES Kyrgyzstan.

In January 2006, three meetings were held in Almaty and Bishkek with OJSC NES Kyrgyzstan and JSC KEGOC to develop an agreement for electricity transit through KEGOC grids and loss compensation.

Operations control of parallel power system operations is exercised by Energy, a regional dispatch and control centre located in Tashkent.

At this point in time, the Kyrgyz power system operates in parallel with the power systems of Central Asian nations, Kazakhstan and Russia. Parallel operations with the Central Asian and Kazakhstan power systems is governed by an Agreement among the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic, the Government of the Republic of Tajikistan, and the Government of the Republic of Uzbekistan on Parallel Operations of Central Asian Power Systems, which was signed in Bishkek on June 17, 1999. Interconnection for parallel operations with UES Russia was made on September 2, 2000. In the future when Kambarata HPP 1 & 2 are constructed and brought on line, electricity will be supplied to Kazakhstan per bilateral agreements of July 26, 2006 and electricity will transit through KEGOC power grids.

**Enhancing electricity sector reliability and safety**

At the present time, the electricity sector, with its generation, transmission and distribution systems, generally meets the nation’s demand for power and district heat, maintaining stable generation volumes.

The sector determines the status and development prospects for the national economy, accounting for about 5% of GDP, 16% of industrial output and 10% of national budget revenues. A meshed power grid enables access to electricity virtually for the overwhelming majority of the country’s population. At the same time, in terms of per capita consumption of electricity (1,777 kWh), the Republic is lagging behind the world number (2,343 kWh per person) and the numbers of its neighbours: Kazakhstan (3,312 kWh per person), Tajikistan (2,172 kWh per person) and Uzbekistan (1,796 kWh per person).

In the past years, measures have been implemented to strengthen the energy independence of the country by developing domestic main power lines and generating sources. A lot has been done to retool and advance custody transfer metering of electricity, securing the formation of a wholesale power and electricity market. The operational capability of the electricity sector has undergone reform on a functional basis with a view to adjust it to market-driven business methods, with conversions to joint stock companies and partial privatisation of businesses being now complete.
Government regulation tools have been developed for the electricity sector, suitable for the market economy, with joint stock companies transferring governance functions to a State Property Management Committee and a regulator in place since 2007 – the Ministry of Industry, Energy and Fuel Resources.

A number of significant legislative and legal regulatory acts governing electricity sector relationships have been developed and adopted; the development of legal and regulatory framework has got underway to enable the conduct of an energy-saving policy.

However, the absence of a definitive national energy policy and well-considered mechanisms to implement it has posed a number of problems with no resolute measures taken to address them.

The importance of enhancing reliability and safety of the energy sector is reflected in the midterm and long-term energy policies envisaged by the National Energy Programme of the Kyrgyz Republic.

The topmost priority of the KR energy strategy includes maximised efficiency of fuel and energy resource uses, as well as of the existing technological and scientific capability and human resources in the fuel and energy complex (FEC) to ensure energy independence and security of the nation.

The midterm energy policy should seek to resolve the following priorities:

- ensure reliable and uninterruptible energy supplies to domestic consumers, first and foremost;
- carry out a far-reaching reform of the managerial system, establish the requisite institutional and regulatory framework, complete FEC restructuring;
- develop and implement practical measures to reduce energy losses and theft;
- improve FEC financial management and corporate governance; strengthen business and fiscal discipline and achieve profitability of sectoral entities;
- develop and proceed with a sectoral retooling programme;
- implement measures to maintain the competitive advantages of the KR on the regional electricity export market and advance the export capability based on the formation of an open regional energy market;
- develop a programme to reduce hydrocarbon imports and replace them with local alternative energy sources to mitigate dependency on rising energy prices and greenhouse gas (GHG) emissions;

The long-term government energy policy of the KG is based on the following principles:

- consistent government actions to implement the most important strategic benchmarks for energy sector development; and
- concern for the establishment of strong and steadily growing energy companies prepared for a constructive dialogue with the government.

One of the strategic targets of the long-term government energy policy includes energy security. Achieving such a target requires that the key building blocks of the government energy policy be developed. These include primarily the efficient use of
government energy stockpiles; development of domestic energy/fuel markets; formation of a rational fuel and energy balance; regional and external energy policies; social, science and technology, and innovation policies for the FEC.

In pursuing the energy policy, the government will fully use its rights as owner of subsoil resources and FEC assets. To make this process more efficient, the plan is for the finalisation of government property restructuring with the maintenance of effective government control in the backbone FEC sectors and hazardous facilities (hydro, etc.) and broader spectrum of facilities slated for privatisation.

The key to the pursuit of the national energy policy should include continuous improvements of the legal and regulatory framework in the context of legislative developments ensuring stability, completeness and consistency of the legal and regulatory framework in this vital sphere of society.

Energy security is the most important component of national security in the KR and one of the key objectives of the energy policy, ensuring protection of the nation, its citizens, society and the economy from threats to reliable fuel and energy supplies. Such threats hinge on both external (geopolitical, macroeconomic, market) factors and own condition and functioning of the national energy sector.

The current situation of the FEC indicates that such threats are realistic. There is a considerable technology gap in the fuel extracting sectors accompanied by a sharp decline in coal, oil and gas production and steady dependence on hydrocarbon imports. The electricity sector is characterised by structural imbalances and uneven geographic distribution of generating capacity, underdeveloped backbone power grids with constrained throughput and higher risk of consumer restrictions. The situation is aggravated by a financial and economic crisis caused by non-payments, electricity theft and inefficient sectoral management.

The energy security policy is aimed at consistent improvements of its key characteristics as follows:

- the FEC capability to meet in a reliable manner economically reasonable domestic and external demand for energy of adequate quality and at acceptable prices;
- the ability of the consumer sector of the economy to use energy resources in an efficient manner, preventing unreasonable cost of energy supply to society and a deficit-prone fuel and energy balance; and
- sustainability of the energy sector in regard of external and internal economic, man-made and natural threats and its capability to minimise damage from various destabilising factors.

The key principles of energy security include the following:

- guaranteed and reliable energy supplies to the economy and population of the country in full under normal conditions and in minimum essential volumes under threat of various emergencies;
- control by the government and local authorities over reliable energy supply of national security facilities;
replenishment of exhaustible fuels (their consumption rate should be in line with the development of their substitutes); fuel and energy diversifications (the economy cannot depend on one energy resource only);

• consideration of environmental safety requirements (energy sector development should take account of increasing environmental protection requirements);

• prevention of irrational energy uses (interconnection with energy efficiency policies);

• creation of an economic environment (primarily through tax and customs measures) making energy supplies to both domestic and export markets equally beneficial and rationalisation of exports structure;

• development and manufacturing of competitive home-made energy related equipment.

Energy security calls for rehabilitation of the largely obsolete and worn-out technological capability of the FEC, as well as exhaustible resource base replenishment, a changed consumption pattern and different energy production distribution. Provisions are made for increased hydrocarbons production and a greater use of hydro and renewable energy sources.

V.6. Nuclear Energy

Kyrgyzstan has considerable resources of uranium ores, but of low grade. There are about 300 t of indicated and 350 t of inferred resources of 0.031% U content at Kamushanov, and also possible resources elsewhere. Uranium mining decreased precipitously in Kyrgyzstan in the mid-1980s and was discontinued in 1989.

The Kara-Balta mining and processing enterprise (KBMP) produces yellowcake. It is the only one of its kind in the country and the largest in Central Asia. After the closure of the mines in Kyrgyzstan, it continued operation on feedstock from Kazakhstan (Zarechnoe) until 2005, when this activity was stopped due to the lack of raw material. The massive uranium tailings remain a problem. KBMP still processes gold and molybdenum ores.

Kara-Balta was majority controlled by Kyrgyzstan’s Defense Ministry. In February 2007 the Russian Renova Group won a tender via its affiliated UralPlatina Holding to purchase the Kyrgyz government’s 72.28 percent stake in the Kara-Balta uranium-production facility for around $1.8 million. At Zarechnoe (which used to supply uranium ore to KBMP for processing), the majority of the stock (50.73%) is controlled by Russian companies (Techsnabexport – 49.33%, Atomredmetzoloto and KBMP – 0.67% each), with the remaining 49.33% held by KazAtomProm (Kazakhstan).75

At present, Kyrgyzstan does not produce or use nuclear material, but other operations at KBMP continue (gold refining, molybdenum, etc.). Uranium enrichment may restart soon as the Eurasian Development Bank announced that it is ready to lend $63 million to the Zarechnoe joint venture for five years. Production at Zarechnoe is expected to be around 1,000 tons per year until 2022.76

There are no nuclear power plants in the country and no plans to build them.


V.7. Local, Renewable Energy and Wood

Despite its high latitude, Kyrgyzstan has stable and adequate solar energy resources, owing to its altitude and favorable climatic conditions. There are about 2,600 hr/yr of sunshine and a radiant energy of 1,500-1,900 kWh/m²/yr. Kyrgyzstan also claims two important industrial installations that produced about 30 percent of the needs of the FSU in crystalline silicon for solid state devices in the space and defense industries. The Orlovka plant makes single-crystal silicon while the Tash-Kumyr plant, not completed, was designed for polycrystalline silicon. The Tash-Kumyr plant is currently producing silicon blocks for a foreign customer on a toll basis.77

The main barriers for developing solar energy are economic and institutional. The country is not able to mobilize the investments needed. There is no feed-in tariff for electricity from renewable energy sources (RES) and no particular legal framework for support of such projects. Nevertheless, the President of Kyrgyzstan established in 1999 the so-called Business Project KUN (kun in Kyrgyz means sun) for RES applications. KUN is an executive organ of state management under the government and coordinates the state energy policy in the field of RES. As far as using solar energy, this project only foresees its use in water-heating devices.78

Currently there is no operative wind energy capacity in Kyrgyzstan. A country wide wind-atlas is available, according to which there are some areas with wind speeds between 4-5 m/s only.

There is no industry association or manufacturer in the country, and no specific projects exist. There seems to be a technical potential of 2,500 MW installed capacity, but the feasible potential is uncertain. The most promising areas are in the northern part of the Chui district, the Osh district, the Issyk-Kul, and the Djalal-Abad district.79

The geothermal resources of Kyrgyzstan are small and insufficiently studied. The application of thermal water consists mainly of balneology. It is planned to use the thermal water in the area of city Bishkek and in the valley of lake Issyk-Kul.

Geothermal resources are concentrated in the reservoirs formed in sediments of depressions and in the convective fissured hydrothermal systems of foothills. The evaluation of resources for two hot water fields was carried out. It included the following fields:

- Issyk-Ata (nearby Bishkek); temperature 55 °C, TDS 0.5 g/l; total flow rate 690 l/s,
- Ak-Su (Issyk-Kul Basin); temperature 60 °C, TDS 0.5 g/l; total flow rate 415 l/s.

Total thermal water resources in Kyrgyz Republic have not been estimated.80

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79 Ibid.
80 Ibid.
Government of Kyrgyzstan established a Centre on the problems of using renewable energy resources (CPURER). Together with the Kyrgyz Association of renewable energy resources, CPURER has developed a program of the use of RES, including biomass.

The Republic has sufficient know-how and production capacities at idle factories for production of biogas plants. Ten biogas plants with a capacity of 2-40 m³ have been constructed by individuals.

The majority of rural population (which constitutes about 65% of a total population of the country, i.e. more than 3 million people) has no opportunities to use clean fuels for preparing food and heating, primarily because of poverty. Therefore the forests are cut down for wood as fuel, including the best ones and the so-called “relic” forests.

Practically all lands under cultivation (about 1,200 thousand hectares) obtained by peasants from the collective farms are not fertilised and are often degenerated, reducing biofuel production potential. Despite some preliminary work by CPURER targeting the production of biogas from biowaste (mainly from livestock manure) and organic fuel (mainly from agriculture residue and cuttings), the use of biofuel remains limited and in primitive appliances that emit considerable pollution.

Of the recommended policies for the development of RES identified by the World Bank a decade ago, few have been implemented and even fewer successful. These policies include the following measures:

- setting up a dedicated agency or group for the coordination, facilitation, and promotion of renewable energy resources with a clear mandate from the Government;
- establishing a regional renewable energy development centre to exploit the scale economies and comparative advantages of the Central Asia as a whole, to set strategic priorities and ensure coherent, complementary donor and government activity, to engage international economic and technical cooperation, and to consolidate and disseminate market information and training resources;
- clarification of roles, to eliminate overlapping and conflicts and to simplify procedures in licensing projects;
- creation of a special fund with favourable funding procedures for RE projects and to implement creative financing mechanisms, especially on the small and local level; and
- emphasis on the participation of the private sector; such participation will be greatly encouraged by a set of incentives. That is carefully designed, targeted, time-bound (i.e., put in place for a designated period of time) and not distorting.  

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V.8. District Heating (DH)

DH system heat loads

Today there is a considerable heat power gap between the capacity of CHP-1, the main source of heat in the city, and the growing connected heat load to the DH system. This gap is estimated at 420 Gcal/h, with the technical condition of CHP-1 equipment deteriorating each year while the connected heat load is forecast to grow at a rate of 30-50 Gcal/h per year. First and foremost, this situation adversely affects the quality of service to customers in remote locations from the heat source (southern, south western and north western parts of the city).

In this connection, it is proposed to do as follows:

- Impose severe restrictions on the issuance of specifications for new connections to the DH system in problem areas, especially in the southern part of the city (Housing Developments Nos. 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and Asanbai), south western part (Botsad 1 & 2, and Airport Residential Communities), and western part of the city (west of Molodaya Guardia Avenue).
- Upgrade CHP-1 capacity to cover the requisite heat loads in the longer term, or consider supplying heat to new connections in such problem areas from individual local sources.
- Include the peak capacity of CHP-2 and NUR boiler house in the Bishkek heat supply scheme.

Technical condition of heat supply networks

The balance sheet of OJSC Bishkekteploset includes 415,031 km of double line heat supply pipelines with 199 km of them being beyond their service life (25 years) and requiring replacement and with about additional 150 km to cross this landmark in 10 years. Insufficient funds preclude pipeline replacements as required. Annually, 7-8 km of heat supply networks is repaired and rehabilitated. Pipelines deteriorate at an accelerated rate. The aging occurs faster than replacements.

In addition, there is a trend towards a growing book share of Bishkekteploset heat supply assets due to annual transfers of pipelines from various owners including public sector entities. As a rule, no funds are earmarked to upgrade them to adequate technical condition.

At this point in time, Bishkekteploset only performs repair jobs and some minor scope of rehabilitation on their heat supply networks.

Given the foregoing, it is believed appropriate to do the following:

- Costs to rehabilitate and repair heat supply pipelines and equipment proper should amount up to 150 mln soms per annum (replacement of some 20 km of heat supply networks);
- When transferring heat supply assets between books from public sector entities, provisions should be made in various level budgets for reimbursing the costs incurred in connection with such delivery/acceptance;
A DH development budget should be put in place. In doing so, the Ministry of Industry, Energy and Fuel Resources should develop and have approved by a KR Government Decree a tariff methodology for new heat network connections and increases in heat user capacity. This budget should be administered pursuant to an approved DH scheme and a programme to be developed.

V.9. Energy Saving Policy

Priorities for the Future Perspective

A more efficient use of fuel and energy resources and creating an environment for setting the national economy on an energy-saving track is one of the government energy policy priorities. It would enable assurance of sustainable energy supplies to the national economy and population at foreseeable growth rates.

Improved energy efficiency is not only a key requirement under the NEP but also under the midterm social and economic development programme of the nation. Therefore, if propped up with relevant implementation mechanisms, this requirement should be regarded as an absolute must under any proposed or implemented measures.

In the current situation, the KR, endowed with a considerable energy capability, imports about 50% of energy consumed, its economy is energy gluttonous, and its energy intensity equals 1.08 toe/USD 1000, which is 3.6 higher than the world average (0.30 toe/USD 1000).\(^{82}\)

Inefficiency of fuel and energy uses is caused by deficiency of existing technologies, legal and fiscal/economic mechanisms. They do not provide incentives to the energy producer or consumer to reduce energy costs.

Realisation of energy-saving technological potential includes three groups of energy-saving measures:

- low-cost measures that come down to sorting out things with fuel and energy use: getting rid of energy transportation and storage losses; compliance with energy-saving process modes; replacement of excess power equipment, installation of consumer energy meters, etc.;
- capital intensive measures requiring massive dedicated investment and implemented only if the energy-saving effect repays the implementation costs;
- associated measures implemented in the process of retooling of the national economy where energy-savings are an attendant factor; these include changing the pattern of materials, technologies and final products used.

By an estimate, aggregate energy consumption by economic sectors in the Republic could be reduced by 13% for the account of technical and organisational measures that do not require large investment, allowing savings of 550 k toe in 2010. Rehabilitation and upgrading of existing energy related equipment and introduction of energy-saving

\(^{82}\) According to the International Energy Agency (KEY-2003).
processes could save up to 25% of electricity and about 15% of heat, or 2,000 mln kWh and 800 k Gcal, respectively.

In the midterm, i.e. 2007-2010, it is necessary to implement on a fast track the low-cost component of the energy-saving potential.

The key document governing relationships in the energy-saving area with a view to create an economic and organisational environment for efficient energy uses is now the Energy-Saving Law of the Kyrgyz Republic.

Given that the Law is an indirect effect act, the near-term priority is to develop and adopt a dedicated programme – Energy Saving in the KR in 2006-2010 (the “Programme”).

The Programme objectives and tasks will include the following:

- implementation of the key provisions of the energy-saving policy in accordance with the requirements of the KR Energy-Saving Law;
- setting the economy on the energy-saving track with improved living standards for the population;
- use of a set of market-driven mechanisms and government regulation measures;
- reduction of regional budget subsidies for fuel and energy supplies.

The Programme activities must include three blocks:

1. Regulatory, organisational, methodology and human resource support of energy savings.
   1.1. Establish as soon as possible a set of legislative, legal and regulatory acts enabling the development and implementation of energy saving programmes and projects to promote improved efficiency of energy-saving activities in the KR.
   1.2. Develop fiscal and economic mechanisms to implement nation-wide, sectoral and regional programmes to establish a self-balancing energy-saving system using the following funding sources:
      - funds of businesses involved in the implementation of energy-saving measures and programmes;
      - budgets of districts and cities implementing energy-saving programmes;
      - funds allocated from the national budget to implement energy-saving projects and programmes;
      - extra-budgetary funds and investments.

Government financial support of energy-saving should preferably be provided on a repayable basis, favourable terms and for a limited time based on project significance and payback.

Mechanisms need to be used allowing for project funding where money is in short supply. Such mechanisms include the following:

- use of repayable funding schemes for energy-saving projects;
- use of tariff lending to improve energy efficiency;
granting of rights to energy saved to public sector energy consuming entities and organisations;
encouraging energy savings through the use of subsidies to households.
Government support of energy saving projects implemented by businesses and administrative/territorial subdivisions in the KR should be made subject to an energy audit, energy certification and an energy saving programme.

1.3. Arrange for manpower training and retraining in energy-saving and introduction of energy-saving technologies. Ensure:
- the development of environmental and energy saving mindsets of the younger generation as part of preschool and school education;
- retraining of university degree professionals in technology aspects of energy saving;
- training of energy auditors for businesses and organisations;
- conduct of refresher courses for managers and professionals involved in energy supplies and energy saving.

1.4 Develop a government regulation and control system for Programme implementation.

2. Improve efficiency of fuel and energy resource production and consumption.

2.1. Based on a detailed review and analysis of energy saving resources, develop and adopt energy-saving programmes for 2007-2010 and for the period until 2025 by economic sector, for the buildings sector and by Republic region. Establish regional energy saving policy concepts and define principles of interregional cooperation in energy saving.

2.2. Ensure introduction of energy-saving equipment, energy control devices and meters.

3. Develop innovative and improve existing energy-saving technologies, equipment, devices and materials; establish new alternative sources of energy.

3.1. Determine efficient conditions and phases to introduce state-of-the-art energy-saving technologies, reduce specific consumption of fuels and energy in the FEC, industry, buildings sector, agriculture, construction, transportation and other economic sectors.

3.2. Establish a databank on efficient energy-saving technologies in the KR and abroad.

3.3. Assess whether it is possible to import to, and fabricate in, the Republic small-scale and unconventional energy sources with shorter investment cycles to ensure a more even distribution of power generation across the country.

3.4. Carry out an active information policy, distribute energy-saving promotional and information software, newsletters and printed matter of promotional and information nature.

Information on the implementation of the Kyoto Protocol mechanisms
A National Climate Change Committee was set up by virtue of President Decree No. 281 of July 18, 2005. The key tasks of the Committee include the development and implementation of national and, where appropriate, regional programmes to mitigate climate change by resolving man-made greenhouse gas emissions and capture, as well
as interdepartmental coordination of Clean Development Mechanism (CDM) project reviews and approvals.

In view of the Kyrgyz Republic Government restructuring, a new version of the KR President Decree (No. 370) was issued on July 7, 2006, regarding the National Committee and changing its membership (No. 281 or July 18, 2005) in line with the Government structure. At the present time, the KR State Agency on Environmental Protection and Forestry (SAEP&F) is exchanging official correspondence with the government agencies and departments specified in the Decree to have permanent representatives appointed to the Committee. CDM project selection and approval criteria have been under development to ensure efficient deliberations of the Committee.

In addition, a bill on government regulation and policies in the field of GHG emissions and capture has been developed. As part of that effort, the GEF/UNDP project to aid the Kyrgyz Republic in preparing a second National Communication for the UN Framework Convention on Climate Change (UNFCCC) provided expert support to Parliamentary committees in bill discussions (January-February 2006). In this connection, consultations were organised for the members if the KR SAEP&F. Jogorku Kenesh of the Kyrgyz Republic passed the bill on March 23, 2007 (No. 1723-III).

Work has been underway in the Republic to develop and formulate per existing standards CDM project ideas on small hydro and light hydrocarbons capture on gas transmission lines. In particular, preparation of a project application is nearing completion for the construction of a chain of small-scale HPP’s (a total capacity of 4 MW) in the Issyk Kul Region. Advisory and methodology assistance on the project was provided as part of the TACIS project on technical aid to Central Asian countries in the fulfillment of their global change obligations.

KyrKazGas started preparing a project application for the capture of light hydrocarbons on their gas pipeline. In addition, a Bishkek CHP plant is beginning preliminary work to develop a project idea on reducing CO₂ emissions through rehabilitation of aging boiler equipment.

As part of the above TACIS project, a series of trainings were conducted on developing CDM project applications.

A memorandum of understanding was signed on March 9, 2005 between the Government of the Kyrgyz Republic and the Government of Denmark on implementing the Kyoto Protocol to the UNFCCC. So far, the Danish Environmental Agency has done preliminary work with the Bishkek Mayor’s Office to develop engineering and design documents for the capture of methane at the city solid waste landfill site. The Danish Environmental Agency has recently been reported to proceed to the introduction phase of methane emission incineration technologies.

In cooperation with the UNDP regional office in Bratislava, the GEF/UNDP project to aid the Kyrgyz Republic in preparing a second UNFCCC National Communication has started preparations for the conduct of a series of trainings on developing CDM projects in Kyrgyzstan. This series of workshops spans such subjects as alternative energy project development (small hydro, biogas units, solar batteries and wind farms), capture of light hydrocarbons on gas pipelines and of methane on animal farms, and GHG sinks development (forest plantations).
**Annex 1: Main Macroeconomic Indicators**
*(as of May 9, 2007)*

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<td><strong>Gross national savings</strong></td>
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**Memorandum items**

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<td>GNI per capita (US$, Atlas method)</td>
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<td>Gross domestic product at market prices</td>
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<td>Gross domestic product at market prices</td>
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**Balance of Payments (US$ millions)**

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<th>Indicator</th>
<th>Actual</th>
<th>Estimates</th>
<th>Projected</th>
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<tr>
<td>Exports (GNFS)</td>
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<td>745</td>
<td>942</td>
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<tr>
<td>Merchandise FOB</td>
<td>498</td>
<td>590</td>
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<td>Imports (GNFS)</td>
<td>721</td>
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<td>Merchandise FOB</td>
<td>572</td>
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<td>Resource balance</td>
<td>-80</td>
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<td>-193</td>
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<td>Net current transfers</td>
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<td>112</td>
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<td>Current account balance</td>
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<td>Net private foreign direct investment</td>
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<td>Long-term loans (net)</td>
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<td>Official</td>
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<td>33</td>
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<tr>
<td>Private</td>
<td>-15</td>
<td>-49</td>
<td>-8</td>
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<td>Other capital (net, incl. errors &amp; omissions)</td>
<td>58</td>
<td>59</td>
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<tr>
<td>Change in reserves</td>
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<td>-52</td>
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**Memorandum items**

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<td><strong>Real annual growth rates (c 1995 prices)</strong></td>
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<td>Merchandise exports (FOB)</td>
<td>8.1</td>
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<td>Primary</td>
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<td>Manufactures</td>
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<td>Merchandise imports (CIF)</td>
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(Continued)
### Kyrgyz Republic - Key Economic Indicators

(Continued)

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<td><strong>Public finance (as % of GDP at market prices)</strong></td>
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<td>Current account surplus (+) or deficit (-)</td>
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<td>M2/GDP</td>
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<td>21</td>
<td>21</td>
<td>29</td>
<td>31</td>
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<td>Growth of M2 (%)</td>
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<td>33</td>
<td>32</td>
<td>10</td>
<td>52</td>
<td>22</td>
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<td>Private sector credit growth / total credit growth (%)</td>
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<td>101</td>
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<td><strong>Price indices (YR2005 =100)</strong></td>
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<td>Real exchange rate (US$/LCU)</td>
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<td>92</td>
<td>98</td>
<td>100</td>
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<td>111</td>
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<td>Consumer price index (% change)</td>
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- **a.** GDP at factor cost
- **b.** "GNFS" denotes "goods and nonfactor services."
- **c.** Includes net unrequited transfers excluding official capital grants.
- **d.** Includes use of IMF resources.
- **e.** Consolidated central government.
- **f.** "LCU" denotes "local currency units." An increase in US$/LCU denotes appreciation.

Annex 2: Competitive Disadvantages

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<th>Competitive Disadvantages</th>
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<td>Policy rules and regulations</td>
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<td>Property rights</td>
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<tr>
<td>Rules governing foreign direct investment</td>
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<tr>
<td>Openness of bilateral Air Service Agreements</td>
<td>112</td>
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<tr>
<td>Foreign ownership restrictions</td>
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<tr>
<td>Visa requirements</td>
<td>94</td>
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<td>Environmental regulation</td>
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<td>Stringency of environmental regulation</td>
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<tr>
<td>Government prioritization of sustainable T&amp;T</td>
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<tr>
<td>Clarity and stability of environmental regulations</td>
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<td>Safety and security</td>
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<td>Reliability of police services</td>
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<td>Business costs of terrorism</td>
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<td>Business costs of crime and violence</td>
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<tr>
<td>Health and hygiene</td>
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<td>Gov’t efforts to reduce health risks from pandemics</td>
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<tr>
<td>Access to improved drinking water</td>
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<tr>
<td>Access to improved sanitation</td>
<td>76</td>
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<tr>
<td>Prioritization of Travel &amp; Tourism</td>
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<td>Effectiveness of marketing and branding</td>
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<td>T&amp;T fair attendance</td>
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<td>Government prioritization of the T&amp;T industry</td>
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<td>Air transport infrastructure</td>
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<td>Quality of air transport infrastructure</td>
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<td>Available seat kilometers</td>
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<td>Number of operating airlines</td>
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<td>Departures per 1,000 population</td>
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<td>Ground transport infrastructure</td>
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<td>Port infrastructure</td>
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<td>Road infrastructure</td>
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<td>Railroad infrastructure</td>
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<td>Domestic transport network</td>
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<td>Tourism infrastructure</td>
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<td>Hotel rooms</td>
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<td>ATMs accepting Visa cards</td>
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<td>Presence of major car rental companies</td>
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<td>ICT infrastructure</td>
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<td>Extent of business Internet use</td>
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<tr>
<td>Telephone lines</td>
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<tr>
<td>Internet users</td>
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<td>Price competitiveness in the T&amp;T industry</td>
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<td>Extent and effect of taxation</td>
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<td>Extent of staff training</td>
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<td>Local availability of research and training services</td>
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<td>Primary education enrollment</td>
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<td>Life expectancy</td>
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<td>Ease of hiring foreign labor</td>
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<td>Tuberculosis incidence</td>
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<td>Quality of the educational system</td>
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<td>Secondary education enrollment</td>
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Source: WEFORUM Index 2007
Annex 3: Summary of Investment Climate Indicators

Summary of Investment Climate Indicators

<table>
<thead>
<tr>
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<th>Kyrgyz Republic</th>
<th>Small (1-49 Employees)</th>
<th>Medium (50-249 Employees)</th>
<th>Large (250+ Employees)</th>
<th>Europe and Central Asia</th>
<th>Low Income</th>
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<td>Infrastructure Indicators</td>
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<td>% of Firms Identifying Transportation as a Major Constraint</td>
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<td>3.6</td>
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<td>% of Firms Identifying Electricity as a Major Constraint</td>
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<td>1.8</td>
<td>0.0</td>
<td>7.5</td>
<td>35.7</td>
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<tr>
<td>Days/Year of Power Outages</td>
<td>9.6</td>
<td>11.8</td>
<td>6.7</td>
<td>4.2</td>
<td>12.3</td>
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<td>% of Sales Lost to Power Outages</td>
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<td>4.3</td>
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<td>Days/Year of Insufficient Water Supply</td>
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<td>Delays in Obtaining Electricity Connections (Days/Year)</td>
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<td>6.6</td>
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<td>% of Investments Financed by Internal Funds</td>
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<td>% of Firms Offering Formal Training</td>
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<td>% of Skilled Workers Offered Formal Training</td>
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<td>Non-production Workers (as % of Total Workforce)</td>
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<td>Skilled Production Workers (as % of Total Workforce)</td>
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<td>Unskilled Production Workers (as % of Total Workforce)</td>
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<td>20.1</td>
<td>15.1</td>
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### Annexes

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<th>Regression Burden and Corruption Indicators</th>
<th>Kyrgyz Republic</th>
<th>Small (1-49 Employees)</th>
<th>Medium (50-249 Employees)</th>
<th>Large (250+ Employees)</th>
<th>Europe and Central Asia</th>
<th>Low Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Firms Identifying Corruption as Major Constraint</td>
<td>32.2</td>
<td>31.1</td>
<td>30.9</td>
<td>42.0</td>
<td>17.1</td>
<td>38.4</td>
</tr>
<tr>
<td>Unofficial Payments to Get Things Done (% of Sales)</td>
<td>2.5</td>
<td>2.8</td>
<td>2.0</td>
<td>1.2</td>
<td>1.0</td>
<td>2.9</td>
</tr>
<tr>
<td>% of Firms Expected to Give Gifts in Meetings with Tax Inspectors</td>
<td>27.8</td>
<td>27.6</td>
<td>28.3</td>
<td>27.8</td>
<td>22.0</td>
<td>27.5</td>
</tr>
<tr>
<td>% of Firms Expected to Give Gifts to Obtain Operating Licenses</td>
<td>29.3</td>
<td>33.6</td>
<td>19.6</td>
<td>27.8</td>
<td>13.6</td>
<td>15.8</td>
</tr>
<tr>
<td>% of Firms Expected to Give Gifts to Obtain Import Licenses</td>
<td>29.3</td>
<td>27.4</td>
<td>26.4</td>
<td>50.0</td>
<td>11.5</td>
<td>11.0</td>
</tr>
<tr>
<td>% Senior Management Time Dealing with Government Regulations</td>
<td>7.8</td>
<td>5.7</td>
<td>10.0</td>
<td>14.1</td>
<td>5.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Time Spent in Tax Inspection Meetings (Days/Year)</td>
<td>3.2</td>
<td>3.7</td>
<td>2.5</td>
<td>1.9</td>
<td>2.8</td>
<td>4.8</td>
</tr>
</tbody>
</table>

| Courts and Crime Indicators | | |
|----------------------------|----------------------------|
| % of Firms Identifying Legal System/Conflict Resolution as a Major Constraint | 16.3 | 14.6 | 17.7 | 22.7 | 14.0 | 20.8 |
| % of Firms Identifying Crime, Theft and Disorder as a Major Constraint | 19.3 | 16.9 | 19.5 | 33.2 | 9.2  | 27.0 |
| % of Firms with Overdue Payments from Buyers/Suppliers/Customers | 46.5 | 37.6 | 55.4 | 76.2 | 52.4 | 63.3 |
| % of Firms Resolving Disputes through Court Action | 30.9 | 25.5 | 38.7 | 31.3 | 37.0 | 8.4  |
| % of Firms with Confidence in Legal System to Enforce Contract/Property Rights in Disputes | 49.2 | 48.4 | 51.9 | 47.6 | 56.0 | 51.3 |
| Costs of Security (% of Sales) | 1.9  | 1.7  | 2.3  | 1.7  | 0.8  | 1.8  |
| Losses due to Crime (% of Sales) | 0.7  | 0.7  | 0.6  | 0.9  | 0.3  | 1.4  |

| Innovation and Technology Indicators | | |
|--------------------------------------|----------------------------|
| % of Firms Undertaking Innovation | 72.3 | 68.0 | 76.8 | 85.7 | 65.1 | 72.0 |
| R&D Expenditures (% of Sales) | 0.5  | 0.5  | 0.3  | 1.9  | 0.3  | 0.7  |
| % of Firms Identifying Foreign Competition as Important Influence in Lowering Production Costs or Developing Products | 31.5 | 23.0 | 42.6 | 52.4 | 40.3 | 22.2 |
| % of Firms Identifying Domestic Competition as Important Influence in Lowering Production Costs or Developing Products | 63.8 | 65.6 | 62.5 | 57.1 | 73.2 | 54.6 |
| % of Firms Using E-mail to Interact with Buyers/Suppliers/Customers | 45.0 | 39.2 | 44.6 | 81.0 | 64.8 | 48.9 |
| % of Firms Using Website to Interact with Buyers/Suppliers/Customers | 43.1 | 37.6 | 41.1 | 81.0 | 62.5 | 25.8 |
### Annexes

| Source: World Bank Investment Climate Survey 2005 |

<table>
<thead>
<tr>
<th>Trade Indicators</th>
<th>Kyrgyz Republic</th>
<th>Small (1-49 Employees)</th>
<th>Medium (50-249 Employees)</th>
<th>Large (250+ Employees)</th>
<th>Europe and Central Asia</th>
<th>Low Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Firms That Trade Identifying Customs &amp; Trade Regulations as a Major Constraint</td>
<td>20.5</td>
<td>18.6</td>
<td>17.6</td>
<td>31.6</td>
<td>13.8</td>
<td>29.6</td>
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<tr>
<td>Days on Average to Claim Imports From Customs</td>
<td>4.4</td>
<td>4.1</td>
<td>4.6</td>
<td>4.5</td>
<td>3.8</td>
<td>8.2</td>
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<tr>
<td>Days on Average to Clear Customs for Exports</td>
<td>4.1</td>
<td>4.8</td>
<td>3.8</td>
<td>3.9</td>
<td>3.3</td>
<td>4.7</td>
</tr>
<tr>
<td>% of Inputs Which Firms Import Directly</td>
<td>25.3</td>
<td>22.7</td>
<td>24.9</td>
<td>40.5</td>
<td>17.2</td>
<td>25.3</td>
</tr>
<tr>
<td>% of Firms Expected to Give Gifts to Obtain Import Licenses</td>
<td>29.3</td>
<td>27.4</td>
<td>26.4</td>
<td>50.0</td>
<td>11.5</td>
<td>11.0</td>
</tr>
</tbody>
</table>

**Note:** Country-level indicators denoting percentage of firms use as denominators the number of firms for which data for the respective question is available. Country-level indicators denoting quantities (i.e. the number of days, percentage of sales, percentage of loan value, etc.) represent averages of responding firms that are not considered to be outliers. Outliers are defined as firms with values greater than the mean plus 3 times the standard deviation or less than the mean minus 3 times the standard deviation for that particular indicator. Regional and income group indicators are calculated as averages of country-level indicators in the respective region and income groups.
## Annex 4: Bilateral Investment Agreements of Kyrgyzstan

Total number of Bilateral Investment Agreements concluded, 1 June 2006

<table>
<thead>
<tr>
<th>Reporter</th>
<th>Partner</th>
<th>Date of Signature</th>
<th>Date of entry in to force</th>
</tr>
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<tbody>
<tr>
<td>Kyrgyzstan</td>
<td>Armenia</td>
<td>4-Jul-94</td>
<td>27-Oct-95</td>
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<tr>
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<td>Azerbaijan</td>
<td>28-Aug-97</td>
<td>28-Aug-97</td>
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<td></td>
<td>Belarus</td>
<td>30-Mar-99</td>
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<tr>
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<td>China</td>
<td>14-May-92</td>
<td>8-Sep-95</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>1-Jan-01</td>
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<tr>
<td></td>
<td>Finland</td>
<td>3-Apr-03</td>
<td>8-Dec-04</td>
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<tr>
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<td>France</td>
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<td>Indonesia</td>
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<td>23-Apr-97</td>
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<td>Iran, Islamic Republic of</td>
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<td>31-Jul-96</td>
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<td>Kazakhstan</td>
<td>8-Apr-99</td>
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<td>Malaysia</td>
<td>20-Jul-95</td>
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<td>Moldova, Republic of</td>
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<td>29-Jan-99</td>
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<td>Tajikistan</td>
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<td>Turkey</td>
<td>28-Apr-92</td>
<td>31-Oct-96</td>
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<td>18-Jun-98</td>
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<td>12-Jan-94</td>
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<tr>
<td></td>
<td>Uzbekistan</td>
<td>24-Dec-96</td>
<td>6-Feb-97</td>
</tr>
</tbody>
</table>

*Source: UNCTAD*