



UZBEKISTAN

ENERGY CHARTER

In-Depth Review of the Investment Climate and Market Structure in the Energy Sector



2005



Energy Charter
Secretariat

SUMMARY AND MAIN FINDINGS OF THE SECRETARIAT

Uzbekistan, a Central Asian country located at the ancient Silk Road, is rich in hydrocarbon resources, especially natural gas. Proved gas reserves amount to about 1.85 trillion cubic meters, exceeding the confirmed oil reserves of about 600 million barrels nearly 20-fold on energy equivalent basis. Most of the existing oil and gas fields are in the Bukhara-Kiva region which accounts for approximately 70 percent of Uzbekistan's oil production. The second largest concentration of oil fields is in the Fergana region. Natural gas comes mainly from the Amudarya basin and the Murabek area in the southwest of Uzbekistan, making up almost 95 percent of total gas production.

The endowment with oil and gas offers considerable potential for further economic development of Uzbekistan. Its recent economic performance has been promising, with a GDP growth of above 7 percent in 2004, and an outlook for continuous robust growth in 2005 and beyond.

To what extent it can be realised depends crucially on how the government will pursue its policies concerning investment liberalisation and market restructuring, including privatisation, in the energy sector. While the Uzbek authorities recognize the critical role that foreign investment plays for the exploitation of the hydrocarbon resources and the overhaul of the existing energy infrastructure progress has been relatively slow concerning the establishment of a favourable investment climate for many years. However, the Government has recently adopted a far more positive stance that has already brought about tangible results. In addition, the previously limited investment opportunities in the other parts of the energy sector have been expanded. As a result, it has become a leading sector for foreign investment in the country, even though it is essentially still in state ownership.

1. Foreign investment

Due to a lack of domestic capital, know-how and technology, foreign direct investment is crucial for the development of Uzbekistan's energy sector. Therefore, since gaining independence in 1991, Uzbekistan has been developing a comprehensive legal framework for FDI with a view to improve investment conditions. Core legislation includes the Law on Foreign Investment, the Law on Guarantees and Measures for the Protection of Rights of Foreign Investors, and the Law on Investment Activity. Another important investment-related law is, for instance, the Presidential decree on special incentives to attract FDI into the oil and gas prospecting and extraction sector.

These laws provide important legal guarantees to foreign investors, including the principle of non-discrimination, freedom of capital movements, stability of legislation, compensation in case of expropriation, employment of foreign personnel, and access to international arbitration. In addition, the Law on Investment Activities provides for the setting up of an investment agency with the objective of assisting foreign investors in the establishment process. Uzbekistan has also concluded a considerable number of bilateral investment treaties and agreements on the avoidance of double taxation. Finally, it needs to be mentioned that Uzbekistan maintains only one exception in the "Blue Book" to the principle of non-discrimination concerning the making of an investment (relating to administrative procedures in connection with the leasing of land).

Key legislation has also been established concerning the energy sector. It includes the Law on Subsoil, the Law on Natural Monopolies, the Law on Production Sharing Agreements, the Law on Concessions, and the Law on Rational Energy Use. However, a special petroleum law or electricity law does not exist. The legislation put in place reflects the government's main objectives of achieving energy self-sufficiency, expanding the access of the population to natural gas, and gradually moving to competitive markets and prices for energy products and commodities.

Given that the policy to improve the investment climate and invigorate the government's efforts to attract FDI has gained momentum only recently, the existing stock of FDI is still relatively small. Total stock of inward FDI stood at only \$ 917 million in 2003; annual inflows between 2000 and 2003 averaged at approximately \$ 73 million. Accordingly, the 2004 UNCTAD World Investment Report ranked Uzbekistan 113th among 140 countries in their recent inward FDI performance. Based, however, on recent changes in policy and clearly encouraging trends, Uzbekistan can hope to significantly improve its standing with investors.

Foreign investment has been very modest in the energy sector for many years. In the last two years, however, some production sharing agreements have been concluded in the oil and gas exploration and production sector, and some joint ventures have been established with Russian investors. Investors from Russia have likewise stated their aim of investing almost \$2 billion in Uzbekistan's oil and gas sector. In 2002, a strategic partnership was established with Gazprom (see below). Gazprom will invest in the doubling of the gas pipeline transit capacity by 2007. The deal also provides for the possible sale to Gazprom as a strategic investor of 44 percent of the shares of the state company UzTransGaz.

Texaco has set up a joint venture with the state-owned company Uzneftepererabotka concerning the production of lubricants at the Fergana oil refinery and their joint marketing. Recently, some Chinese companies have expressed interest. In addition, various foreign companies are active in the energy sector of Uzbekistan under service contracts, most of them related to oilfield services.

No foreign investment has been reported so far in the electricity sector, though the Uzbek government is trying to attract foreign capital for the rehabilitation of the national power industry. Likewise, there is no foreign investment in the coal sector.

There are several reasons why FDI into Uzbekistan's energy sector has been far below potential up to now and, similarly, several reasons why one may expect a much better performance in the future:

- Probably the most important deterrent to FDI is the Uzbek government's ambiguous approach to privatisation, which keeps the energy sector under heavy state control. Although the government is offering numerous privatisation deals to foreign investors, they have therefore shown little interest. However, to rectify the situation, the Government is now considering the possibility of extending management contracts to the parties that participate in the privatisation of major power, oil and gas companies.
- The government has had a policy of maintaining low energy prices for the population that made foreign investment largely unattractive. Oil and coal used to be sold at a fraction of world market prices, which was a severe disincentive for FDI serving the domestic market. However, electricity and gas tariffs have been increased significantly in recent years and are now close to long-run marginal costs.
- Non-payment was a serious problem, but the government started to tackle it by launching a metering programme. It is now almost completely implemented for the electricity and gas sectors. Accordingly, collection rates have improved to a great extent. In addition, payment with barter has been outlawed.
- The legislative framework was perceived by some observers as vague, cumbersome and unpredictable. However, recent changes in the legislation have improved the situation. For the time being, there is no independent regulator of the energy sector. Regulation is considered as being strategically important, and many decisions are still made at the highest political level.
- Due to the limited amount of crude oil available, FDI for export purposes is currently not an attractive option in this sector. In addition, no adequate export pipeline is available. By contrast, Uzbekistan has gas transport connections to Kazakhstan, Kyrgyzstan, and Tajikistan. However, the main export lines that lead to Kazakhstan and beyond are exclusively operated by Gazprom. This may discourage other parties from investing in upstream gas.

2. Market structure, including privatisation and restructuring

Uzbekistan is in the midst of an earnest process of restructuring and privatising its energy sector in order to bring it closer to the principles of a market economy. Progress has been relatively slow until 2004; in that year a point of important changes seems to have been reached. For the time being, however, the Uzbek government offers only minority shareholdings to foreign investors in the energy business, primarily due to its gradualist approach to reform.

Restructuring has advanced to a different degree in individual energy sub-sectors:

- The oil and gas sector is essentially dominated by the state-owned enterprise UzbekNefteGaz National Holding Company (“UNG”). UNG and its five major production-related subsidiaries – Uzgeoburneftegazdobycha, UzTransGaz, UzNefteProdukt, UzNefteGazMash, and the Shurtan Gas Chemical Complex - have been selected as top priority candidates for privatisation. The plans are to sell a maximum of 49 percent of the shares in each of the companies. Significant preparatory work is required in order to realize privatisation. Privatisation has now a better prospect to succeed as existing legal barriers to proper corporate governance and commercial operations of UNG appropriate for a market economy are removed.
- The entire system of natural gas, transmission and transit pipelines, and storage facilities is owned by UzTransGaz, a division of UNG. Since 2002, the Russian company Gazprom manages the transit and export gas pipeline infrastructure in Western Uzbekistan. There are currently no plans to allow for the participation of other foreign investors, which may have an impact on upstream gas projects.
- Distribution of natural gas is operated by the state agency Uzbek Community Services (“UCS”), which controls 14 regional distribution entities. Privatisation is at present not envisaged, but the current system is in the process of finally overcoming many major deficiencies, such as low collection rates, illegal take-offs of gas, and heavy administrative procedures.
- Plans to partly privatise the national refinery system are still drawn in a way that would allow Uzbekistan to retain the majority stake.
- In the electricity sector, unbundling has started with the establishment of the joint stock company UzbekEnergO, which is responsible for power generation, transmission and distribution. UzbekEnergO is 100 percent state-owned. It controls 13 “unitary” generation enterprises, 3 heat production enterprises, an electricity transmission enterprise and 15 regional distribution enterprises. Another subsidiary is engaged in coal-related activities (mining, etc.). Furthermore, UzGosEnergONadzor has been established as the regulatory agency covering electricity, coal mining, and heat energy.
- There are plans to offer up to 49 percent of the capital of UzbekEnergO and its affiliated companies as indicated above to private investors..
- In the coal sector, there has been little progress, as priority is given to oil, gas and electricity.

Furthermore, as a prerequisite for commercialisation, first steps have been undertaken to bring prices more in line with market requirements. However, for the time being, the Government continues its policy of direct and indirect price regulation in many key areas of the economy.

3. Policy challenges and outlook

Uzbekistan has considerable potential to increase its role as a major international player in the oil and gas business. The significant recent efforts and – above all – a stronger political determination as demonstrated in 2004-2005 have increased the prospects for this to happen.

As a result of past low cost recovery and reinvestment, the domestic energy infrastructure is in poor shape and in urgent need of rehabilitation or replacement. Furthermore, very low energy prices in place for many years have resulted in massive energy inefficiency. The Government is urgently implementing a program of both pricing reform to assure that prices are cost-reflective, and eliminating the most glaring examples of inefficient use of energy, for example in the district heating sector.

Uzbekistan's ability to export gas and – to a much lesser extent - oil necessitates the further development and overhaul of the pipeline system. This is all the more important as long as FDI for the supply with energy of the domestic market remains unattractive due to low energy prices.

Without substantial amounts of foreign capital, technology and know how, it will be very difficult for Uzbekistan to meet these multiple challenges. While recent policy changes and actual steps taken by Uzbekistan deserve to be commended, Uzbekistan needs to continue its efforts to further improve its investment climate, and open up new investment opportunities in the various energy sub-sectors.

With regard to the investment climate, the Secretariat has identified a number of areas where both significant improvements have been achieved and where room for further improvements exists. They relate, in particular, to

- The omnipresent role that the state continues to play in the entire energy sector, and which has impeded so far Uzbekistan to realise its full economic potential;
- The partial overlap of investment-related legislation, including the risk of inconsistencies, and a certain lack of transparency concerning the implementation of laws, which might leave investors in doubt about the applicable legislation;
- Still relatively burdensome administrative procedures, which might delay the granting of authorisations and permissions;
- The combination of commercial and regulatory functions in state companies, which puts private competitors at a potential disadvantage. In addition, the absence of an independent regulator leaves considerable room for political interference in business operations; and
- The absence of a law on petroleum and on electricity, which could consolidate existing entry and operational conditions in key sectors of the Uzbek economy, and foster foreign investment.

With regard to the restructuring and privatisation process in the energy sector, it is crucial that the government continue its current policy of gradual opening and allow more participation of foreign capital. Continuous state control across all energy sub-sectors leaves little prospect that foreign investors will enter the country in sufficient numbers. One should think of an alternative strategy where foreign majority ownership is permitted in individual energy sub-sectors, depending on their strategic importance. In this respect, the power sector, but also the oil business, could be prime candidates for more liberalisation.

In addition, domestic oil should be brought more in line with world market prices and gas prices should be more cost-reflective to make the sector attractive for foreign investors, and to improve energy efficiency. This could result in higher profits of the companies, and, subsequently, in higher tax revenues of the state. This additional income could – in part - be used to provide direct financial aid to the poor who cannot afford an increase in energy prices.

* * *

IN-DEPTH REPORT

ON

THE INVESTMENT CLIMATE

AND

MARKET STRUCTURE

IN THE ENERGY SECTOR OF

UZBEKISTAN

October 2005

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I. Executive Summary

Uzbekistan is an independent republic since 1991. Uzbekistan has a presidential form of government headed by Mr. Islam Karimov. It has observer status in the WTO since 1994.

After years of relatively weak economic performance, the Uzbek government adopted – in close cooperation with the IMF – a programme of macro-economic and structural reforms in 2004. It resulted in a GDP growth of more than 7 percent and a current account surplus exceeding \$1 billion. In addition, a uniform exchange rate has been introduced for the local currency “soum” and by 2005 current transaction convertibility has almost been achieved.

In 2005, the Uzbek government expects a GDP growth rate of 7 percent. The main driver of sustainable economic development are hydrocarbon resources, mainly natural gas. They offer great potential for Uzbekistan’s further economic development.

Uzbekistan has set up a legal framework to attract foreign direct investment. Huge amounts of FDI are needed to develop and modernize the energy sector, including a substantial reduction of its high energy intensity. However, up to 2004 FDI inflows have been very modest (FDI inward stock stood at \$ 917 million, and FDI annual inflows at \$ 70 million in 2003). Among the main reasons for the relatively low attractiveness of the Uzbek energy sector for foreign investors in the past have been the pervasive state ownership allowing for only minority foreign shareholdings, non-payment problems, non-cost reflective energy prices, non-independence of the energy regulator, and a legislation, which has been perceived by some as vague and unpredictable. The Uzbek government is aware of these shortcomings, and from 2003-2004 important steps have been taken to improve the situation, such as the initiation of price adjustments and the active implementation of a metering programme.

The Uzbek government now regards privatisation as a main vehicle to attract more FDI. Currently, however, the energy sector is still controlled by the state. Foreign investors are yet only permitted to acquire minority shareholdings, which limits their interests considerably. The government is actively working on overcoming these shortcomings, for example by eventually extending long-term operational management contracts to investors in the energy sector. In addition, some production sharing agreements worth billions of dollars have been concluded for oil and gas exploration and production.

As far as the *downstream oil and gas sector* is concerned, the market continues to be dominated by the vertically integrated state enterprise UzbekNefteGaz National Holding Company (“UNG”). There are plans to offer up to 49 percent of the shares in UNG and its subsidiaries to foreigners. In the *electricity sector*, legal unbundling has resulted in the establishment of a state joint stock company UzbekEnergO and several subsidiaries, being active in electricity transmission, distribution, and coal mining. Once again, there is a plan to sell up to 49 percent of the shares in these companies to foreign investors.

Uzbekistan has now embarked on the way to become a more attractive destination for foreign investors in the energy sector. The process of restructuring and privatisation is still in a relatively early stage, but the Uzbek government is now willing to open the energy sector to foreign investors more broadly. A full and effective implementation of the pricing and tariff reform, as well as the establishment of an independent regulator, are other key challenges. In addition, the legislative framework for foreign investors needs further development and streamlining. In this respect, it should be noted that a separate petroleum law and electricity law do not exist. However, a new package of laws and regulatory acts is expected to be adopted by the end of 2005 to advance and build upon the favorable trends observed recently.

Overall, the political measures implemented over the past two to three years with a view to restructure the energy sector and convert it to market-based relationships have already resulted in considerable progress, and more positive developments can be expected.

II. Introduction¹

II. 1. Basic facts about Uzbekistan

Uzbekistan is situated along the ancient Great Silk Road in the heart of Central Asia. It covers an area between the Amu-Darya and Syr-Darya rivers. It is a double land-locked CIS country (Fig. 1).

Figure 1: Uzbekistan



¹ This chapter and the following chapter III use information contained in the documents: The World Bank, Uzbekistan, Energy Sector: Issues, Analysis, and Agenda for Reform, June 2003; PriceWaterhouseCoopers, Uzbekistan, A Business and Investment Guide, March 2004.

Uzbekistan is a heterogeneous society dominated by ethnic Uzbeks. Some 76% of the population are Uzbeks, 6% are ethnic Russians, 5% are Tajiks, 4% are Kazakhs and 9% are from other ethnic groups.

Official Name: Republic of Uzbekistan.

Total Area: 447,400 sq. km.

Population: 25.9 million (2004).

Principal cities: Tashkent (2.4 million), Samarkand (392,000), Namangan (378,000).

Languages: Uzbek (official language), Russian (lingua franca).

Neighbouring states: Kazakhstan, Turkmenistan, Afghanistan, Tajikistan, Kyrgyzstan.

Currency: Uzbek Soum (UZS).

Exchange rate: UZS 1058=US\$1 (31 December 2004).

Table 1: Key Economic Indicators

| Gross Domestic Product (GDP) ⁽¹⁾ | 1996 ^a | 1997 ^a | 1998 ^a | 1999 ^a | 2000 ^b | 2001 ^b | 2002 ^b | 2003 ^b |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| GDP (UZS) bn | 559 | 977 | 1,416 | 2,129 | 3,195 | 4,672 | 7,469 | 8,817 |
| Real Change (%) | 1.6 | 2.5 | 4.4 | 3.4 | 3.3 | 4.1 | 3.2 | 3 |
| GDP per capita (UZS thousand) | 24.3 | 41.5 | 59.1 | 87.9 | 128.3 | 185.8 | 236.6 | |
| Real Change (%) | (0.3) | 0.6 | 2.7 | 2.9 | 1.2 | 3.5 | 2.5 | |
| Stabilisation indicators ⁽¹⁾ | | | | | | | | |
| Inflation (% change in consumer prices) | 64.4 | 27.6 | 26.1 | 29.0 | 24.9 | 27.2 | 24.2 | 14.6 |
| Budget balance (%GDP) | (5.6) | (2.4) | (3.4) | (1.7) | (1.0) | N/A | (0.8) | (0.6) |
| Exchange rate (UZS/US\$, end period) | 55 | 80 | 110 | 140 | 325 | 688 | 970 | 980 |
| Average monthly wage (UZS) | 2,166 | 3,697 | 5,414 | 7,527 | 9,780 | N/A | N/A | N/A |
| Unemployment rate (official%) | 0.4 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | 0.5 |
| Foreign trade, foreign debt and official reserves ⁽²⁾ | | | | | | | | |
| Exports (US\$m, on customs basis) | 3,534 | 3,695 | 2,888 | 2,790 | 2,935 | 2,755 | 2,510 | 2,780 |
| Imports (US\$m, on customs basis) | 4,240 | 3,767 | 2,717 | 2,587 | 2,441 | 2,479 | 2,187 | 2,300 |
| Trade balance (US\$m, on customs basis) | (706) | 72 | 171 | 203 | 494 | 276 | 323 | 480 |
| Foreign debt (US\$m, end-period) | 2,381 | 2,594 | 3,484 | 4,310 | 4,363 | 4,533 | 4.3bn | 4.4bn |
| Gross (net of gold) foreign reserves (US\$m, end-period) | 772 | 374 | 533 | 763 ^b | 600 | 781 | 640 | 595 |

(1) The Economist Intelligence Unit *EIU), *Country Profile : Uzbekistan*, December 2003

(2) European Bank for Reconstruction and Development, *Report on Uzbekistan*, 3-5 May 2003

^a Actual

^b Economist Intelligence Unit estimates

II. 2. Political System

Uzbekistan declared its independence on 29 August 1991. Direct presidential elections were held on 29 December 1991 which were won by Mr. Islam Karimov. He was re-elected in the January 2000 presidential election. A referendum in January 2002 extended the presidential term in office from five to seven years. The next presidential elections are to be held in 2007.

According to the Constitution of 8 December 1992, Uzbekistan is a sovereign, democratic republic. The country is headed by a president. The government (Cabinet of Ministers) is subordinate to the president, who appoints the prime minister and ministers subject to the approval of the legislature.

The highest legislative body is the two-chamber Oliy Majlis (Supreme Assembly), which is elected for a five-year term. The lower legislative chamber consists of 120 members elected by Uzbek citizens based on secret voting. Members of the higher chamber – the Senate – are elected from each region of Uzbekistan, the Republic of Karakalpakstan and Tashkent city, by six members from each territory. Sixteen members of the Senate are appointed by the President of the Republic of Uzbekistan out of the most competent citizens with outstanding achievements in and contributions to science, literature and art. The president, with the approval of the Constitutional Court, may dissolve the Oliy Majlis.

There are six officially recognised parties. They are the People’s Democratic Party, the National Democratic Party “Fidokorlar”, the “Adolat” Party, “Khalq Birligi” People’s Unity Party, the “Milliy Tiklanish” National Revival Party and the Liberal Democratic Party.

II.3. Economy

II.3.1. Macroeconomic Situation

The government adopted a gradualist approach to economic reform during the early years of independence². State intervention in the economy was high and privatisation, particularly of large enterprises, was carried out in stages. Although the economy was not impacted as severely as those of most of the other CIS countries, the declared high level of social protection caused initially a growing budget deficit and high inflation.

However, the adoption of a comprehensive economic reform programme supported by the World Bank in early 1994 marked a significant change in direction. The programme included measures to stimulate private enterprise, reduce state control, accelerate privatisation and encourage foreign investment by providing improved legal protection for investors and tax incentives.

In July-August 2001, Uzbekistan, jointly with the International Monetary Fund (IMF), launched a staff-monitored Program of macroeconomic stabilisation and structural reform aimed at strengthening efforts to implement market reforms, including gradual removal of all restrictions on access to foreign exchange for current account transactions and the unification of exchange rates by end-June 2002. It was hoped that in this context, the Uzbek government would carry out comprehensive liberalization and limit administrative economic regulation. By 2004, the positive results of the intensified economic restructuring and accelerated privatisation had become manifest in all dimensions of the national economy.

The development of hydrocarbon resources and the modernisation of the cotton industry play an important role in the country’s economic development³.

² Drawn from the Economic Intelligence Unit Country report on Uzbekistan

³ Uzbekistan is the world’s fifth largest producer and second largest exporter of cotton.

Russia remains Uzbekistan's largest trading partner, with its share of trade reviving thanks to increased cotton exports. Exports to the rest of Central Asia are mainly accounted for by gas. Outside of the CIS, important export markets are the UK, Switzerland and South Korea, the first two being the initial destinations for gold and cotton sales, respectively. Much of the trade with South Korea is connected with Daewoo's activities in Uzbekistan.

II.3.2. Foreign Direct Investment

II.3.2.1. Actual Inflows of FDI

The Uzbek government is aware of the need to attract increasing amounts of FDI to further develop and modernise its energy sector. As a result of the past low cost recovery and reinvestment, the capital stock in parts of the energy sector has been run down and is in urgent need of rehabilitation or replacement. According to a recent study, required investment in thermal power plants alone could exceed \$1 billion in the next 3 to 5 years. Most importantly, the cheap energy prices buttress massive energy inefficiency⁴.

The Government is well aware that the known resources of oil and gas will be exhausted rapidly if the wasteful use of energy continues and new exploration and development of reserves is not undertaken. Due to a lack of domestic funds, foreign investment, technology and know how is crucial to achieve this goal. The current approach includes providing the investor with a better protection and a number of benefits, which by early 2005 had been conducive to a dramatic increase in FDI (several times compared to the mid-1990's).

Uzbekistan is rich in natural resources (e.g. oil and gas, gold and other metals, cotton and other agricultural produce) and politically stable. Nonetheless, Uzbekistan did not succeed in attracting significant FDI for some time. In 2000, Uzbekistan received only US \$69 million (0.6% of GDP). Between 1992 and the first quarter of 1996, FDI equalled a little over 0.5% of GDP. Seeking to attract more FDI, the Government of Uzbekistan has implemented since 2001 a number of measures that have been most favourable for foreign investors and now continues to display its firm commitment to economic reform. A uniform exchange rate has been introduced and by 2005 current transaction convertibility has almost been achieved. Back in 2004, the World Investment Report ranked Uzbekistan as the 113th of 140 economies evaluated in terms of their inward FDI performance in 2002-2003; of the FSU countries, Uzbekistan is ahead of Kyrgyzstan (115th) and Russia (119th); the trends over the past two years hold out hope that such performance will significantly improve. During 1993-2002, Uzbekistan was either invariably listed among the countries with low economic activity or rated below its capability, whereas over the past years the inflow of FDI has dramatically increased although the total FDI accruals are still below the Central Asian average.⁵

The Russian Federation, the UK, South Korea, Turkey and the US are the largest investors in Uzbekistan, with FDI directed mainly to the mining, tobacco and

⁴ The energy intensity of the Uzbek economy remains very high (2.2 TOE/1000US\$ in 1999), over three times as high as in countries like China or Vietnam, and far above the levels of Kazakhstan or Russia.

⁵ Cf. World Investment Report 2004, UNCTAD, New York, pp. 14, 17, 290, 395, 407. Changes in FDI inflows to a country is a multiple criteria indicator of the country's actual capability to attract FDI versus its potential.

automotive sectors, and most recently – in the oil and gas sector. Within the CIS, Uzbekistan is the 3rd top destination of Russia’s outflow of FDI, behind only Belarus and the Ukraine; it is the 5th top destination for outflow of FDI from Russia globally.⁶ The most sizeable foreign investments to date have been made by BAT (tobacco), Newmont Mining (gold), Daewoo Corp. (automobile manufacture) and Case New Holland (agricultural machinery). However, since 2004 the oil and gas sector has begun to emerge as a front-runner in terms of investment volumes – chiefly as a result of the largest PSA’s entered into with Russian companies (Gazprom, Lukoil; see below for details).

The services sector remains free from foreign investment. As of the end of 2003 there have been only two investment in service-oriented projects (a call center and a shared service center). Altogether, there were just 2 parent corporations and 27 foreign affiliates based in Uzbekistan. To compare, in the same year there were 1,865 affiliates in Kazakhstan, 7,153 in Bulgaria, 26,546 in Hungary, 71,385 in the Czech Republic, etc.⁷

Statistics on FDI inflows and stocks are provided in Table 2.

Table 2: FDI statistics (\$ million)

| | 1992-1997 Annual average | 1995 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|--|-----------------------------|------|------|------|------|------|------|------|
| FDI inflows | 61 | ... | 140 | 121 | 75 | 83 | 65 | 70 |
| FDI stocks | | 106 | ... | ... | 699 | ... | 847 | 917 |
| <i>Including in the energy sector:</i> | | | | | | | | |
| <i>FDI inflows</i> | | | | | | | | |
| <i>FDI stocks</i> | | | | | | | | |

Source: World Investment Report 2004, UNCTAD.

II.3.2.2. Current investment obstacles

The rich endowment with hydrocarbons, in particular gas, makes Uzbekistan to a potentially attractive location for FDI. The Uzbek authorities have undertaken considerable efforts in recent years to establish a favourable legal framework for FDI (see below). Trends and events in recent years have combined to make the hydrocarbon sector potentially more attractive. In particular, Uzbekistan concluded agreements with Gazprom to export natural gas northwards.

However, the political measures implemented over the past two to three years with a view to restructure the energy sector and convert it to market-based relationships resulted in considerable progress. In particular, thus far the following features remain and relevant measures are being taken to mitigate and overcome them:

- The energy sector in Uzbekistan is still almost wholly-owned by the government. Therefore, the investment potential is relatively limited and government control is ever-present. Economic regulation in the energy sector

⁶ Ibid., p. 74.

⁷ Ibid., p. 274.

is the responsibility of the Ministry of Finance. Investors wish to see a regulatory system that is not dependent on the political system (i.e. the Government) or operators (i.e. Uzbekenergo and its subsidiaries) and that is transparent and open for public oversight. The steps taken by the government over the past two years are pretty much in line with such wishes although many measures are yet to be implemented.

- Market-oriented structural change has brought about new scope for FDI, making investment requirements accompanying privatisation offers and post-privatisations conditions less stringent. Private investors still run into the privatisation scheme that prevents them from obtaining a controlling block of shares, especially in the case of large businesses offered for sale. This problem may be resolved by letting investors hold in trust additional blocks of shares in businesses undergoing privatisation for a certain period of time.
- Domestic oil and coal prices have been raised but are still below the world market levels. Export and PSA-based projects are beneficial, which fact is evidenced by the large PSA's entered into with Russian companies (Gazprom, Lukoil).
- Following several increases, electricity prices set for all sectors are close to long-term marginal costs (the official average weighted price effective January 1, 2005, equals US \$0.0264 per kWh versus about US \$0.035 per kWh). Gas prices have also been raised and are nearing long-term marginal costs.
- Between April 2002 and the end of 2004, electricity prices were increased 2.59 times and already in 2003 the power grid drastically improved its financial performance, closing the year with a 28,876 million soum profit.
- Non-payments have become a less serious problem. Banning barter payments has been a very important step towards a total resolution of the non-payment issue.
- Energy consumption metering is getting underway. Since the beginning of 2002 gas meters have been installed in numerous households that gained access to the gas distribution network. Metering has lately been under special scrutiny evidenced by several Cabinet of Ministers decrees on improving the settlement mechanisms and strengthening electricity consumption accounting and control.
- Uzbekistan's laws and regulatory acts governing foreign investment which were perceived by certain observers as vague and unpredictable have been amended and detailed. A new package of laws and regulatory acts is expected to be adopted by the end of 2005 to advance and build upon this favorable trend.

II.3.3. Privatisation

The Uzbek government considers de-monopolization and corporatization as important means to increase efficiency, transparency and accountability in the management of the sector. Privatization is seen as the main vehicle to mobilize resources to meet

current and future capital needs – particularly those of the rapidly aging thermal power plants. Accordingly, the government has launched a program for the restructuring and privatisation of the electricity and hydrocarbon sectors. For example, privatization revenues of close to \$40 million were reported in the first half of 2004 from the sale of over 1,000 enterprises, an 80% increase over the same period in 2003, though information on transactions has not been made public.

The main elements of the restructuring and privatisation strategy in the energy sector are:

II.3.3.1. Electricity Sector

Pursuant to the Government Reform Programme providing for a stage-by-stage conversion of the energy sector in Uzbekistan to a functionally unbundled and partially privatised sector in five years (*Cf.* Cabinet of Ministers Decree No. 290 of June 21, 2004), the following measures have been implemented:

- The Energy and Electrification Ministry has been abolished and replaced with Uzbekenergo, a government joint stock company (GJSC), which inherited the functions of the Ministry and the government property it held in trust as well as its responsibilities;
- Uzbekenergo has established subsidiaries for electricity generation; transmission; as well as distribution and marketing; a separate sector before, OJSC Ugol was made a part of Uzbekenergo;
- UzGosEnergoNadzor, a government agency for energy sector oversight, has been set up. This regulator has authority over electricity, coal, and heat.⁸

As of January 1, 2005, Uzbekenergo converted all thermal power and CHP stations and regional distributors to joint stock companies. Hydro power stations and UzElectroSet, a main electric grid company, as well as UzEnergoSbyt, a company engaged in transacting business between electricity and heat generators and distributors, are not to be converted to joint stock companies and will remain government property. Created among others have been 13 unitary electricity generators, three heat generators, one unitary electricity transmission company, and 15 regional distribution companies.

Government Resolution No. 93 provides further details on the further unbundling and privatization of UzbekEnergo. It calls for the:

- Offering of up to 49 percent of the capital of the above corporate entities to investors;
- Sale of a minimum of 75 percent of the shares of enterprises and organizations involved in design, civil works and maintenance formerly under the Ministry; and

⁸ The Oil and Gas Inspectorate (UzNefteGazInspectsiya) is a similar agency with analogous responsibilities in regard of the other components of the energy system.

- Transfer of the assets and operating responsibility of the heat networks and -only plants to local governments.

Thus, considerable headway has been made in sector restructuring. Nevertheless, the current sector structure does not fully resolve the objective of eliminating monopoly power and, consequently, may become a barrier to foreign investors. The Government recognizes the need for advancing the sector structure and is actively working to achieve it (*Cf.* Section IV below).

II.3.3.2. Hydrocarbon Sector

Next to the offering of new exploration blocks to foreign oil companies under production sharing agreements (see below), the Government is seeking to attract foreign investments to the sector through the privatization of UzbekNefteGaz National Holding Company (“UNG”). UNG is an integrated state-owned oil and gas company responsible for managing the entire oil and gas sector of Uzbekistan and was established by Presidential Decree in 1998.

UNG and its subsidiaries - UzNefteGazDobycha, UzTtransGaz, UzNeftePererabotka, UzBurNefteGaz, UzNefteGazMash, UzNefteProduct, UzAvtoGaz - have been selected as top priority candidates for privatization through sale of their shares to foreign investors in accordance with the terms and conditions, stipulated by Resolution No. 119. The plans are to sell a maximum of 49% of the shares in each of the companies while the state retains 51%. The responsibility for privatization, and for corporate governance until privatization, rests with GKI (State Property Committee). However, privatisation has limited prospect to succeed unless existing legal barriers to proper corporate governance, and to proper commercial operations of UNG appropriate for a market economy are removed (see below section IV).

II.3.4. Energy Policy

II.3.4.1. Endowment with natural resources

Uzbekistan has considerable natural resources, including oil and gas. Most of these resources are located in the Ustyurt, Bukhara-Khiva, Gissar, Surhandarya and Ferghana regions, running principally along the southern and south-eastern corners of the country.

Proven oil reserves were 600 m barrels at end-2000, according to BP – just 0.1% of world oil reserves. Oil reserves are sufficient for domestic demand, but massive investment in exploration, production and pipeline construction would be required for large-scale exports to become possible, and even then Uzbekistan would be only a marginal producer. Gas reserves are more significant, at 1.87 trillion cubic meters at the end-2000. According to BP, Uzbekistan holds the world’s 14th largest reserves, representing 1.3% of the world total (see below Section IV).

II.3.4.2. Main Objectives of Energy Policy

The main government policies pursued in the energy sector are:

- Achieving energy self-sufficiency as a vehicle to assume and maintain an active geopolitical position. Uzbekistan has drastically stepped up domestic

hydrocarbon production: crude oil production almost tripled from 2.8 million tons in 1991 to 7.5 million tons in 2000; gas production increased from 41.9 BCM in 1991 to 55.5 BCM in 2000, growing by 37%. By 1995, Uzbekistan emerged as a net exporter of natural gas. In value terms, crude oil imports which accounted for US \$485 million in 1995, were reduced to zero. At the present time, Uzbekistan meets virtually all of its crude oil requirements for the account of domestic production.

- Expanding the access of the population to natural gas with the goal of 100 percent coverage. Currently, about 3.5 million households, accounting for 95% of the population have access to piped gas, and an additional 720,000 households use LPG. The Government plans are to connect the remaining residential consumers to the gas network within 3 years.
- Maintaining energy product prices low with a view to encourage competitiveness of the domestic industry and uphold the living standards of the population, but bearing in mind that the prices have been raised and will continue to go up gradually to levels beyond the break even point and in line with international markets.

Overall, the rich fuel endowment is currently used to provide highly subsidized energy to the entire economy – industry, agriculture, transportation, and households, benefiting rich and poor alike. Unfortunately, this current form of handing over the benefits of the resource endowment to the population is inefficient and unsustainable; inefficient because valuable energy is wasted on a massive scale, and unsustainable because of the mounting levels of quasi fiscal deficits and quasi fiscal activities in the energy sector, estimated at \$2.2 billion in 2002. The known resources of oil and gas will be exhausted rapidly if the wasteful use of energy continues and new exploration and development of reserves is not undertaken due to lack of funds.

The Uzbek government is aware of these problems, and is in the process of tackling them:

- The Government actively seeks to attract more foreign investment, technology and know-how to replace and modernize the deteriorating energy infrastructure and to explore and exploit additional reserves. However, interest of foreign investors remains limited, since up to now Uzbekistan only allows foreign minority shareholdings.
- A program of energy savings has been submitted to the Cabinet of Ministers for consideration.
- In August 2001, the Government embarked on price adjustments in the energy sector. Between April 2002 and the end of 2004, electricity prices rose 2.59 times and retail electricity prices grew in US dollar terms by 41% between June 2001 and June 2003.
- The Government has resolved that an efficient gas metering programme be developed for households envisaging gas meter installation in all households within the next three years. In the past years, shortfalls of cash for purchasing and installing such meters prevented or slowed down the implementation of

the programme. However, following appropriate measures taken, it is expected that by September 1, 2005, 100% of households will have gas meters installed (with coverage of about 85% achieved by January 1, 2005).

- An electricity and oil and gas sector privatisation programme has been developed.

Given the geopolitical, economic and social constituents of the Republic's energy policy, the Government programme is based on a stage-by-stage reform. It helped to achieve significant positive results as early as in 2004. According to the March 12, 2005 press release of the Government and the Central Bank of Uzbekistan and the International Monetary Fund, the IMF Mission found that the 2004 results were very good as evidenced by an approximately 7% GDP growth, a 30% growth of the gold and foreign exchange reserves and an external current account surplus of US \$1 billion achieved mainly due to a 30% increase in exports. Such results were achieved owing to soum convertibility after the Government executed Article VIII of the IMF Articles of Agreement in 2003 and the implementation of the privatisation programme was stepped up.

The Mission highly appreciated the full scale economic reform programme launched by President Islam Karimov of the Republic of Uzbekistan, in January 2005, providing for a deeper economic liberalisation process and a rapid growth of the private sector. The key elements of the programme include larger privatisation; a dramatic improvement of private business activity through a more reliable protection of private business rights; further reforms of the banking and finance system and the housing sector; as well as improved tax laws and tax administration.

The Mission also welcomed the recent decision of the Central Bank to provide unlimited access for commercial banks to their correspondent accounts, including cash withdrawals, which should resolve cash shortages.

II.3.4.3. Institutional Set-up

Uzbekistan's energy sector is fully state-owned. The policy-making responsibilities are with the Fuel Energy Complex (FEC) headed by a Deputy Prime Minister. Regulatory responsibilities are split between several institutions – the Pricing Department of the Ministry of Finance has the responsibility for economic regulation, i.e. price setting of all energy forms, whereas technical regulation, operating norms and monitoring/control function over the industry and energy use is the responsibility of UzGosEnergoNadzor (UGEN) for the electricity sector, and UzNefteGasInspectsia (UNGI) for the hydrocarbon sector. Responsibilities for energy price setting in the Ministry of Finance are further split between two units, one dealing with all energy prices to industry as well as with electricity prices to households, and the other with prices of coal and petroleum products applicable to retail consumers. In addition, the State Committee for Nature Protection is responsible for regulating the environmental aspects. Operational responsibilities are those of UzbekNefteGas (UNG) for the hydrocarbon sector, UzbekEnergo (UE) for electricity, and UzbekUgol for coal. At the moment, UzbekUgol is an independent legal entity in the structure of UzbekEnergo (see Section IV).

Despite the existence of the various entities and organizations, the energy sector is considered a strategically important sector and all policy decisions, including those relating to industry structure, form and content of sector regulation, pricing, corporate structures of operational entities, privatization and private sector participation - are made at the highest level by the President and the Cabinet of Ministers. Implementation of these decisions is delegated to the FEC and the individual agencies such as UNG, UE, etc. Decisions regarding privatization and private sector participation are implemented by GKI (State Property Committee), headed by another deputy Prime Minister. In addition, many decisions of an operational or commercial nature affecting the industry players are administratively regulated and/or subject to approval by the Ministry of Finance, the Anti-Monopoly Committee or the Cabinet of Ministers.

III. Legislative Framework for Foreign Investment in the Energy Sector

III.1. Investment-related Laws and Regulations

III.1.1. Overview

The Laws on Foreign Investments (LFI) and on Guarantees and Measures for the Protection of Rights of Foreign Investors (LPRFI) adopted on 30 April 1998 provide the main legal framework for foreign investment in Uzbekistan. Another important legislation dealing with investment is the Law on Investment Activity (LIA) of 24 December 1998. The laws define the types of entities in which foreigners may invest, and the general rights to and guarantees of foreign investors, including, for instance, a stability clause protecting foreign investors against a deterioration of the legislation after the investment has been made, and access to international arbitration in case of an investment dispute. The Laws likewise provide for considerable investment incentives in the form of tax concessions. A special Decree of 28 April 2000 provides for measures to attract FDI into the oil and gas prospecting and extraction sectors. Finally, the LFI mandates the setting-up of an investment agency with the purpose of assisting foreign investors in the establishment process.

On the other hand, this protection of foreign investors, which places them in a preferential position compared to domestic investors, has not made up for significant shortcomings in practice, particularly regarding restrictions on currency exchange, arbitrary imposition and calculation of taxes, and transparency and predictability of administrative decisions. Exporters are forced to surrender 30% to 50% of the foreign currency they realise each calendar quarter, receiving for this local currency at the official exchange rate, which is several times beneath the market rate. Moreover, the Government calculates what it deems exporters to have earned regardless of their actual receipts. All of this is done automatically by local banks. Attempts to apply the protective clauses for foreign investors referred to in the above-described legislation have been fruitless in the past⁹. The situation for foreign investors is, however, considerably better if they operate under a production sharing agreement as it is often the case in the energy sector (see below).

⁹ Market Report for Uzbekistan – Investment Climate Statement 2001, September 5, 2001, Para. A8 (U.S. Commercial Service), viewed at www.lexis.com (file country report Uzbekistan) on April 13, 2003.

Other laws and regulations most relevant to FDI include:

- The Law "On Economic Entities and Companies" of December 9, 1992;
- The Law "On Joint-stock Companies and Protection of Shareholders' Rights" of April 26, 1996;
- The Law "On the Legislative Base of Activity of Economic Entities" of August 29, 1998;
- Decree of the President "On additional measures to support the creation and activity of enterprises with foreign investments" of May 31, 1996;
- Decree of the President "On additional stimuli and privileges given to enterprises with foreign investments" of November 30, 1996;
- The Land Code of July 1, 1998;
- The Law on Production Sharing Agreements of December 7, 2001;
- Decree of the President "on measures on ordering of use of foreign currency in cash in the Republic" of October 24, 1996;
- Resolution of the Cabinet of Ministers "on procedures on the creation, state registration and liquidation of enterprises with foreign investments in the Republic of Uzbekistan" of July 2, 1997; and
- The Tax Code of the Republic of Uzbekistan of April 24, 1997.

III.1.2. Selected Policy Areas

III.1.2.1. Forms of business organisation

Foreign investors may choose from a number of different forms of organisation to conduct business in Uzbekistan, including limited liability companies, joint stock companies, partnerships, representative offices and branches of foreign enterprises.

III.1.2.2. Registration requirements

Effective 1 October 2001, a new procedure for state registration applies in respect to enterprises operating in the Republic of Uzbekistan. It provides for a one-window registration of enterprises. Enterprises have to apply to the relevant state authority responsible for its statutory registration. The registration requirements differ for enterprises with foreign investments, subject to registration with the Ministry of Justice, and enterprises with participation of foreign capital, subject to registration with Khokimiyats (local authorities) of districts and cities. Enterprises with foreign investments having charter capital in excess of \$20 million need the respective resolution of the Cabinet of Ministers on establishment of such enterprise.

The total period of registration of the enterprise with all the subsequent registration with tax and other authorities shall not exceed twelve working days. State registration of joint ventures is subject to a registration fee of 5 times the minimum monthly wage plus \$500. The fee for the registration of an enterprise wholly owned by foreign legal

entity is \$2,000. Joint stock companies established with state participation are exempt from the state registration fee.

III.1.2.3. Investment promotion and protection

Definition of foreign investment

Both the LFI and the LIA include definitions related to an “investment”. Pursuant to Article 5 of the LFI, foreign investors may implement foreign investments on the territory of the Republic of Uzbekistan in the following ways:

- Share participation in authorized funds and other property of economic companies, banks, insurance organizations and other enterprises established jointly with legal and (or) natural entities of the Republic of Uzbekistan;
- Establishment and development of companies, banks, insurance organizations and other enterprises, completely belonging to foreign investors;
- Acquisition of property, shares and other securities, including promissory notes, emitted by residents of the Republic of Uzbekistan;
- Rights of intellectual property, including copyrights, patents, trademarks, utility models, industrial sample names of firms and know-how as well as business reputation (goodwill);
- Acquisition of concessions, including those for prospecting, mining or use of natural resources;
- Acquisition of property rights for trade and service, dwelling quarters with land where they are located, as well as the rights for tenure and use of land (including on a lease basis) and natural resources.

It should be noted that this definition is broader than the definition of investment in the LIA (Article 4). Article 22 of the LFI clarifies that the provision more favourable to the foreign investor shall prevail.

Article 6 of the LFI defines an “enterprise with foreign investments”. It covers entities satisfying the following criteria:

- Their charter fund capital exceeds \$150,000 (Cf Decree No 1652);
- At least one of the participants is a foreign legal or natural person¹⁰;
- Foreign investors own at least 30% of the total charter capital.

Effective 1 July 2002, amended criteria for the status of an enterprise with foreign investment apply to enterprises newly established in the regions of the Republics of Karakalpakstan and Khorezm. The minimum charter capital to meet the criteria of an enterprise with foreign investment for such enterprises is \$75,000, as opposed to the above standard minimum limit. This measure is intended to stimulate investment in these distant regions of Uzbekistan.

¹⁰ Or an Uzbek citizen with permanent residence abroad.

Principle of complete and constant protection

According to Article 9 of the LFI, the state guarantees and protects foreign investors in connection with their investment activity on the territory of the Republic of Uzbekistan. Foreign investors and their investments receive a lawful and equitable treatment, as well as complete and constant protection and safety. Such regime is as favourable as the one specified by international agreements signed by the Republic of Uzbekistan.

Principle of Non-Discrimination

Pursuant to Article 3 of the LPFIR, foreign investors receive non-discriminatory treatment as regards their nationality, place of residence, religion, place of execution of economic activity, while taking into account guarantees included in international agreements concluded by the Republic of Uzbekistan.

Expropriation and Nationalisation

According to Article 5 of the LPFIR, foreign investments and other assets of foreign investors in the Republic of Uzbekistan are not subject to nationalization. They are likewise not subject to requisitioning, except in cases of natural calamities, accidents, epidemics, and epizootics. The decision on requisitioning is taken by the Cabinet of Ministers of the Republic of Uzbekistan. The requisition has to be:

- Limited to the minimum amount of investments or other assets required for the purpose of requisitioning;
- Executed on a non-discriminatory basis and in accordance with law;
- Accompanied by the payment of compensation adequate to the inflicted loss. The state guarantees the timely payment of the compensation.

A foreign investor has the right to contend in legal form, including through arbitration, the following:

- The legality of the purpose of the requisition;
- The scope of the requisition;
- The valuation of the requisitioned investments and other assets;
- The timing and amount of compensation;
- The procedure observed by the state administration bodies and local authorities executing the requisition.

It should be noted that pursuant to Article 22 of the LIA, an investment may likewise be requisitioned in “extraordinary circumstances”. It remains unclear what such “extraordinary circumstances” could be, and whether this provision could be applied with regard to foreign investors.

Stabilisation of investment conditions

A significant guarantee for an entity with foreign investment is contained in Article 3 of the FPFIR, providing for protection against adverse changes in the legislation for a 10-year period following the date when the investment was made. The foreign investor has the right to apply at his own discretion those provisions of a new legislation which establish better conditions for the investment. The guarantee does not cover changes in the legislation related to matters of national security as specified under common principles of international law.

However, the application of this guarantee has in practice been challenged by tax authorities. In this respect, the Cabinet of Ministers issued a Resolution in May 2003 authorising the Ministry of Justice to control the protection of foreign investments and enterprises with foreign investments. Thus, the Ministry of Justice jointly with other relevant ministries was required to develop a list of effective incentives and guarantees for foreign investments and enterprises with foreign investments with a commentary on application of such incentives and guarantees. Currently, it is unclear whether the Resolution would practically help the foreign investors in the needs for stability and predictability of legislative environment.

Free use of funds

According to Article 6 of the LPFIR, foreign investors may reinvest their profits gained in the Republic of Uzbekistan or use them by all means at their discretion. Pursuant to the legislation, enterprises with foreign investment have the rights to:

- Open, use and dispose accounts in any currency and any bank on the territory of the Republic of Uzbekistan as well as abroad; and
- Receive and return loans in foreign currency.

The administrative bodies may restrict the use of resources from the accounts of an enterprise with foreign investment, or order a compulsory withdrawal of the resources, only in accordance with the procedure established by the legislation.

Profit repatriation

According to Article 7 of the LPFIR, foreign investors are guaranteed the free transfer of funds in foreign currency to and from the Republic of Uzbekistan without any limitations, provided payment of taxes and other obligatory payments in accordance with the procedure established by the legislation. Such transfers include the following:

- Initial and additional sums designated either to support or to increase foreign investments;
- Income received from investment implementation;
- Funds received as compensation for inflicted losses in accordance with the present Law;
- Payments executed under a contract;
- Proceeds of sales of all or part of foreign investments;

- Proceeds from the termination of the investment¹¹;
- Payments arising from dispute settlement, including any judicial or arbitral decision;
- Salaries and other payments to workers;
- Funds from other sources received in accordance with the legislation.

Despite these formal guarantees, the repatriation of profits may face difficulties because of existing restrictions on currency convertibility (see next section).

Furthermore, in accordance with the rules of international law, the state may restrict or prohibit the repatriation of funds of foreign investors on a non-discriminatory basis in cases of insolvency and bankruptcy of an enterprise with foreign investments, the protection of creditor rights, criminal acts or administrative infringement of a law by a foreign investor, or following an arbitration or court decision.

Currency convertibility

Since autumn 2002, the Uzbek government has started to gradually liberalise currency convertibility. As of 1 October 2002, all legal entities and individuals are allowed to conversion of UZS into US\$ for the purpose of import of consumer goods, provided that certain requirements are met. To stabilise and further regulate the use of UZS, settlements between businesses may only be performed through bank transfers, regardless of the type of business. An enterprise's right to hold petty cash is also severely restricted, and it may only withdraw cash from its bank accounts for two specific purposes: for the payment of wages and to cover certain allowances for business trips. Banks were subject to certain conditions in terms of access to their correspondent accounts with the Central Bank, which resulted in a shortage of soums (such conditions have recently been removed).

Uzbek enterprises, as well as Uzbek nationals, are prohibited from holding bank accounts outside the country without obtaining prior approval from the Central Bank.

In addition, pursuant to Article 12 of the LFI, all expenses of an enterprise with foreign investment in foreign currency shall be secured at the expense of their own foreign exchange earnings as well as other foreign exchange receipts permitted by the Uzbek legislation.

The Government introduced currency convertibility on October 15, 2003, removing many of the restrictions on freely convertible currency purchases and establishing a uniform exchange rate of the Uzbek soum at 1,070 soums/\$ in the beginning of 2005. This became possible after the Government of Uzbekistan signed Article VIII to the IMF Articles of Agreement and soum convertibility was achieved and restrictions removed on banks' access to their correspondent accounts with the Central Bank.

A priority for 2005 is to accomplish the tasks set for the banking system in the policy statement by the President of the Republic of Uzbekistan at a joint meeting of the Legislative Chamber and the Senate of the Oliy Majlis of the Republic of Uzbekistan.

¹¹ See Article 8 of the LPFIR.

These include the following: measures to conduct a firm monetary policy, consolidate the circulation of money, reduce the extra-bank funds market; further banking sector liberalisation and reform; capitalise banks, increasing their charter and working capitals; ensure priority allocation of funds for investment purposes, to the real economy; support small and medium-sized businesses and private entrepreneurship; liberalise the exchange market; and strengthen the national currency and its exchange rate.

Imports/Exports

According to Article 12 of the LFI, enterprises with foreign investment shall perform export-import operations on their own account, while observing the demands of the legislation of the Republic of Uzbekistan. Export of indigenously produced output is not liable to licensing and allocation. The enterprises with foreign investment have the right to import products for their own manufacturing requirements without a license in accordance with the legislation of the Republic of Uzbekistan.

Employment of foreign personnel

Pursuant to Article 14 of the LFI, foreign investors and enterprises with foreign investment have the right to conclude labour contracts with the citizens of any foreign state and persons without citizenship residing outside the Republic of Uzbekistan. Those persons are entitled to come and stay in the Republic of Uzbekistan during the whole duration of the labour contract and obtain appropriate multiply visas.

Transparency

According to Article 9 of the LPFIR, legislative acts, including departmental norms and judicial decisions affecting the interests of foreign investors, should be available to them; in cases directly provided by the legislation, they should be published.

State administration bodies and local authorities are to provide information being of interest to foreign investor at their request in accordance with the procedure stipulated by the legislation. Similar provisions are included in Article 25 of the LIA.

Additional Rights and Guarantees

Article 10 of the LFI contains a non-exhaustive list of the above-mentioned and additional individual rights of foreign investors. They include the right to:

- Define on their own account the amount, kinds and channels of investments;
- Conclude agreements with legal and natural entities to execute investment activity;
- Own, use and dispose of their investments and the results of investment activity;
- Take decisions on their own account on patenting abroad and in the Republic of Uzbekistan of inventions, utility models and industrial samples belonging to foreign investor and received as a result of investment activity in the Republic of Uzbekistan.

- Dispose freely on their own account of income (including its unobstructed repatriation) resulting from investment activity;
- Attract financial resources in the form of credits and loans to the Republic of Uzbekistan;
- Use means in national currency on their own account for the purpose of purchasing foreign currency at the local foreign currency market;
- Acquire rights on real estate in cases and on terms provided by the legislation;
- Use property and property rights belonging to them as a security on all kinds of obligations undertaken by them, including those directed to attract borrowed funds in accordance with the legislation of the Republic of Uzbekistan;
- Receive adequate compensation in case of requisition of their investments and other assets;
- Receive compensation for losses inflicted as a result of unlawful activities (or non-activity) and decisions of the state administrative bodies, local authorities and their officials.

Article 24 of the LIA mentions the possibility to offer foreign investors further incentives designed to protect their investments. They may include the following: granting of guarantees by the Government, rendering of assistance in the financing of investment projects, establishment of a special tax and payments regime, and state monitoring over the project realization and other measures in accordance with the legislation. Such additional guarantees and measures of investment protection are granted on the grounds of decisions taken by the Cabinet of Ministers of the Republic of Uzbekistan.

Article 4 of the LPFIR specifies that such guarantees may be directed to, inter alia:

- Priority branches providing stable economic growth and progressive structural changes of the country's economy;
- Priority projects providing consolidation and expansion of the export potential of Uzbekistan, and its integration into global economic cooperation;
- Projects of small and medium-sized business, the realization of which is directed to the processing of raw materials, primary goods, production of consumer goods and services, and the stabilisation of employment.

Settlement of Investment Disputes

Pursuant to Article 10 of the LPFIR, disputes associated directly or indirectly with foreign investments (investment disputes) may be settled by agreement of the parties. If the parties are not able to reach a settlement, such dispute should be settled either by an economic court of the Republic of Uzbekistan or by arbitration in accordance with the rules and procedures of international agreements on the settlement of investment disputes, to which the Republic of Uzbekistan is a party.

The parties involved in an investment dispute may, on mutual agreement, determine the authority settling such dispute, as well as the country where the arbitration takes place.

Uzbekistan is a member of the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 10 June 1958. It ratified this Convention on 7 February 1996. Since 25 August 1995, Uzbekistan is likewise a member of the International Centre for the Settlement of Investment Disputes (ICSID).

List of bilateral treaties on the protection and promotion of foreign investments

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|--|--|
| 1. Turkey (28 April 1992) | entered into force on 18 May 1995; |
| 2. China (13 March 1992) | entered into force on 27 March 1994; |
| 3. Korea (17 June 1992) | entered into force on 20 November 1992; |
| 4. Pakistan (13 August 1992) | has not yet entered into force; |
| 5. Finland (1 October 1992) | entered into force on 22 October 1993; |
| 6. Egypt (16 December 1992) | entered into force on 8 February 1994; |
| 7. Ukraine (20 February 1993) | entered into force on 6 June 1994; |
| 8. Switzerland (16 April 1993) | entered into force on 5 November 1993; |
| 9. Germany (28 April 1993) | entered into force on 23 May 1998; |
| 10. France (27 October 1993) | entered into force on 15 June 1996; |
| 11. Israel (4 July 1994) | entered into force on 18 February 1997; |
| 12. UK (24 November 1994) | entered into force on 24 November 1994; |
| 13. USA (16 December 1994) | has not yet entered into force; |
| 14. Poland (11 January 1995) | entered into force on 29 April 1995; |
| 15. Slovakia (16 May 1995) | entered into force on 4 February 1999; |
| 16. Georgia (4 September 1995) | entered into force on 24 May 1999; |
| 17. Saudi Arabia (18 November 1995) | entered into force on 10 October 1996; |
| 18. Moldova (21 November 1995) | entered into force on 17 January 1997; |
| 19. Turkmenistan (16 January 1996) | entered into force on 2 August 1996; |
| 20. Netherlands (14 March 1996) | entered into force on 1 July 1997; |
| 21. Vietnam (28 March 1996) | entered into force on 6 March 1998; |
| 22. Latvia (23 May 1996) | entered into force on 29 January 1997; |
| 23. Azerbaijan (27 May 1996) | entered into force on 2 November 1996; |
| 24. Romania (6 June 1996) | entered into force on 30 May 1997; |
| 25. Indonesia (27 August 1996) | entered into force on 27 January 1997; |
| 26. Kyrgyzstan (24 December 1996) | entered into force on 6 February 1997; |
| 27. Czech Republic (15 January 1997) | entered into force on 6 April 1998; |
| 28. Greece (1 April 1997) | entered into force on 12 March 1999; |
| 29. Kazakhstan (2 June 1997) | entered into force on 8 September 1997; |
| 30. Italy (17 September 1997) | entered into force on 17 September 1999; |
| 31. Malaysia (6 October 1997) | entered into force on 20 January 2000; |
| 32. Russia (22 December 1997) | has not yet entered into force; |
| 33. Belgium-Luxembourg (17 April 1998) | entered into force on 6 February 2001; |
| 34. Bulgaria (24 June 1998) | entered into force on 31 March 1999; |
| 35. India (18 May 1999) | entered into force on 28 July 2000; |
| 36. Bangladesh (18 July 2000) | entered into force on 24 January 2001; |
| 37. Iran (June 2000) | has not yet entered into force; |
| 38. Austria (2 June 2000) | entered into force on 19 August 2000; |
| 39. OPEC fund (11 August 2000) | entered into force on 23 July 2001. |

Investment Incentives

There are significant tax incentives to encourage investment. Most are directed towards foreign investors, manufactures, importers and exporters of strategically important products. The incentives can be divided into two categories: general tax concessions and tax concessions for entities with foreign investment, as follows:

General tax concessions

Tax concessions for new enterprises

All newly formed enterprises, except stock or commodity exchanges and trading enterprises, are subject to profit tax at reduced rates in the first two years after registration. The profit tax rates in each year of activity are as follows: first year: 25% of the basic rate (i.e. currently 4.5%); second year: 50% of the basic rate (i.e. currently 9%).

Newly established enterprises in rural areas, including enterprises with foreign investments (except those in wholesale/retail, intermediary, logistics and storage businesses), are exempt from profit tax in the first year starting from registration of the enterprise; in the second year, the normal tax rate is reduced by 75%. They pay 50% of the normal tax rate in the third year. In subsequent years, such enterprises are taxed at the normal rate.

In addition, newly formed enterprises are granted an exemption from property tax for two years, subject to the same restrictions as for the profit tax above.

Tax concessions for entities with foreign investment

Additional tax concessions are available for production entities with a substantial foreign investment component.

- Entities with foreign investment are exempt from value added tax on technological equipment imported as a charter fund contribution;
- If the foreign investor's share exceeds 50% in the equity capital exceeding \$1 million, income of such production entity is taxed at a rate of 16%;
- A production entity included in the Strategic Investment Programme of the Republic of Uzbekistan is exempt from profit tax for seven years from the date of establishment (registration);
- Foreign investors may import free of import duties goods for their own production and personal needs and those of their employees.

Special Measures to attract FDI into Oil and Gas Prospecting and Extraction

On 28 April 2000, the Uzbek President issued a decree with a view to improve the efficiency of exploration and prospecting for oil and gas, to raise the volume of explored reserves of hydrocarbon raw material and to create an environment conducive to the attraction of foreign direct investment into the nation's oil and gas industry. The decree

- Determines that the intensive conduct of exploration and prospecting works in the Ustyurt Region and other promising oil-and-gas-bearing provinces of Uzbekistan is regarded as the highest priority in the development of the Republic's oil and gas industry.
- Stipulates that foreign companies involved in prospecting for oil and gas in the above-mentioned regions may exploit newly-discovered oil and gas fields under a 25-year concession agreement, with the right to prolong the term of exploitation being granted.
- Provides for most-favoured nation treatment of foreign companies attracted to the Republic to carry out exploration and prospecting for oil and gas. This includes the:
 - Exclusive right to conduct, in a certain region, exploration and prospecting for oil and gas, with the further exploitation of any of the oil and gas fields discovered there by establishing a joint venture or under a concession agreement;
 - Preference to continue exploration and prospecting for oil and gas in other regions, in cases where no industrial oil and gas reserves are discovered in the region specified in the contract;
 - Right of ownership and free export from the Republic of the portion of extracted hydrocarbon raw material stipulated in the joint venture's constitutive documents or the concession agreement, and produce resulting from its processing on a tolling basis;
 - Guarantee to refund expenses actually incurred in the course of exploration and prospecting works, which have resulted in the discovery of industrial oil and gas fields, provided they are handed over to the Uzbekneftegaz National Holding Company for their further exploitation.
- Exempts foreign companies involved in exploration and prospecting for oil and gas as well as their overseas contractors and sub-contractors from the following payments:
 - All kinds of taxes, deductions and payments established in the Republic of Uzbekistan for the whole duration of their prospecting activity;
 - Customs payments (with the exception of duties charged for the customs registration procedure) upon the import of equipment, material and technical resources and services necessary to conduct exploration, prospecting and other associated works.
- Stipulates that enterprises and establishments - residents of the Republic of Uzbekistan supplying materials, fulfilling works and rendering services to foreign companies involved in exploration and prospecting for oil and gas - are exempted from paying value-added tax.
- Determines that:

- The entire duration of exploration and prospecting works carried out, on an exclusive basis, by foreign companies in agreed upon regions should not exceed 5 years;
- Foreign companies, which have succeeded in discovering any promising areas in terms of their further exploitation, are afforded the opportunity to proceed with their activity within their bounds for the term of up to 3 years;
- Foreign companies should ensure the purposeful use of mineral resources, the comprehensive investigation of geological conditions, as well as the reasonable and complex use and protection of mineral resources.
- Grants the following tax exemptions to joint ventures involved in oil and gas extraction and set up with the participation of the foreign companies, which have accomplished exploration and prospecting works:
 - Exemption from paying profit tax within 7 years from the date they start extracting oil or gas. After the expiry of this period, profit tax imposed on the indicated joint ventures is charged at 50 per cent of the established rate;
 - Exemption from paying tax on property and profit received by foreign participants from their share holding in joint ventures;
 - Exemption from the obligatory sale of a portion of currency receipts derived from the sale of produce resulting from the extraction and processing of oil and gas for the period of indemnification of capital invested in exploration and prospecting for oil and gas.
- Authorizes the Cabinet of Ministers to grant:
 - Additional privileges and preferences to foreign companies involved in exploration, prospecting and extraction of oil and gas in the Republic of Uzbekistan;
 - Concessions following direct negotiations between an authorized body and a strategic investor, with no tenders or auctions being held.
- Entrusts the Uzbekneftegaz National Holding Company with the duty to act as a body authorized to (i) regulate issues associated with the exploration, prospecting and extraction of oil and gas in the Republic of Uzbekistan, and (ii) manage, on behalf of the state, concession contracts in the oil and gas industry. In addition, Uzbekneftegaz may accomplish the following (provided an appropriate resolution of the Cabinet of Ministers exists):
 - Sign contracts for the conduct of oil and gas-related activity and to supervise their implementation as well as compliance with the requirements specified in the law and the contract signed;
 - Issue special licences to conduct exploration and prospecting for hydro-carbon-bearing fields, as well as to extract oil and gas.

- Entitles the Uzbekneftegaz National Holding Company to pass to international experts and foreign investors, on the basis of confidentiality agreements, information concerning oil and gas fields, including details about their location, reserves, extraction volumes and the number of wells in operation, under capital repairs or laid up.
- Tasks the Uzbekneftegaz National Holding Company to work out a programme of prospecting works for 2000-2005, with the latter being then submitted to the Cabinet of Ministers for approval in keeping with the established procedure.
- Tasks the Television and Radio Broadcasting Company of the Republic of Uzbekistan, the National Information Agency of Uzbekistan, the Zhakhon Information Agency and the State Committee on Press of the Republic of Uzbekistan to launch a broad media campaign, both domestically and abroad, aimed at elucidating the prospects for the development of the nation's oil and gas industry.

Unfortunately, the said Decree has not led to any significant change. In addition, the 2001 PSA Law is somewhat in conflict with the Decree, introducing tax on investment in the country's oil and gas sector. Since then, measures have been taken to rectify such deficiencies and today the following concessions and guarantees have been granted to foreign investors in the oil and gas sector:

Upstream activities

Foreign companies involved in oil and gas prospecting and exploitation, as well as their foreign contractors and sub-contractors are exempted from:

- All types of taxes, fees and charges existing in the territory of the Republic of Uzbekistan, for the period of carrying out prospecting;
- Customs charges (except for charges for customs registration) when importing equipment, technical-material resources and services necessary for carrying out prospecting, exploitation and other relevant works.

Income (profit) tax for legal persons

Income (profit) tax rates

Tax rate for income (profit) of legal persons is 15%.

For exporting enterprises in which the share of goods (works, services) produced by them and exported for hard currency

- is 15% - 30% of the total, the rate is reduced by 30%;
- is over 30% of the total, the rate is reduced by 50%.

Tax privileges

The following entities are exempted from income (profit) tax:

- joint ventures producing oil and gas established with foreign participation, carrying out oil and gas prospecting and exploration for the period of 7 years from the start of oil and gas production. After the end of this term the rate of profit tax for these joint ventures is fixed at 50% of the current rate;
- newly established industrial enterprises with foreign investments producing export oriented and import substituting products, for the period of 2 years from the moment of beginning production, if the share of foreign capital in the authorized capital (fund) of the enterprise is 50% or more;
- industrial enterprises with foreign investments making investments in the projects included in the investment programme of the Republic of Uzbekistan, during the first 7 years from the moment of registration;
- newly established legal persons pay tax during the first year after establishment (registration) at the rate of 25% and during the second year - 50% of the established rate. In the following years the tax is paid in full at the established rate.

Taxable income (profit) is decreased for the amount of:

- Expenses used for investments as well as repayment of loans for investments;
- 30% of cost on environmental measures.
- Allocations to the reserve fund of up to 20% until this fund equals 25% of the authorized capital.

Value-added tax

Value-added tax rate

The rate for turnover on sale and import of goods (works, services) is 20%.

Export of goods (works, services, as well as works and services for PSA) for hard currency is taxed at a zero rate.

Privileges when paying VAT

Exempted from VAT are:

- Enterprises and organizations – residents in the Republic of Uzbekistan supplying material, which are rendering services to foreign companies, carrying out gas and oil prospecting and exploration;
- Technological equipment imported to the territory of the Republic of Uzbekistan:
 - For the investment projects financed through foreign credits guaranteed by the Government;
 - By foreign investors as their contribution to the authorized capital of enterprises with foreign investments;

- According to authorized projects for creation of new as well as modernization and re-equipment of existing production entities having a relevant confirmation from the authorized bank.

Excise tax

Excise tax rate

| | |
|--------------|-----|
| Natural gas- | 19% |
| Condensate | 0% |
| Oil | 0% |

Privileges for excise tax

Excise tax is not imposed on exported goods

Property tax

Tax rates

The rate for property of legal persons is 3.5%.

Tax privileges

The tax is not imposed on the property of:

- Joint ventures for oil and gas production with participation of foreign companies engaged in oil and gas prospecting and exploration;
- Enterprises-exporters whose export goods/services sold for hard currency account for 15- 0% of total sales, the established rate is reduced by 30%;
- if they account for 30% and more, the established rate is halved.
- equipment bought out of proceeds of credit, for the term of credit repayment, but no more than 5 years.

Land tax

Land tax privileges

Enterprises with foreign investments engaged in industrial activities are exempt from land tax during 2 years after registration.

Implementation of Production Sharing Agreements

During the term of the PSA the investor pays the following taxes and payments:

- income (profit) tax;
- land tax;
- tax on water resources;
- payments for using subsoil;

- environmental payments;
- deductions from labour payment fund under the current legislation.

The investor is exempt from any other taxes, charges and fees existing in the Republic of Uzbekistan.

Investment Agency

According to Article 20 of the LFI, a state body shall be set up with the view to attract, implement and protect foreign investments. It shall execute the following tasks:

- Collect and spread information on possibilities and terms of investment activity in the Republic of Uzbekistan;
- Consult with potential investors on legal, economic and other matters of activity and render necessary assistance in solving questions;
- Elaborate suggestions on the further improvement of the legal framework for foreign investors;
- Represent within their competence the Republic of Uzbekistan in international relations on matters of foreign investment;
- Fulfil other functions directed to attract, realize and protect foreign investment.

Restriction, suspension or termination of investment activity

Article 26 of the LIA provides for the possibility that the state authorities restrict, suspend or terminate an investment activity in certain cases, such as bankruptcy of an investor or violation of existing legislation. In addition, Article 26 may be applied in “extraordinary situations”. It remains unclear what this terms means. Furthermore, it appears that Article 26 does not provide for a compensation of the investor in the latter case.

Land ownership

According to the Land Code of 1998, all land belongs to the state. However, pursuant to Article 12 of the LFI, enterprises with foreign investment may acquire rights on land in cases and on terms provided by the legislation. In particular, foreign investors have the right to rent buildings and equipment. The period of the rent is fixed by the parties to the agreement. The lease of land to foreign investors is subject to authorisation by the Cabinet of Ministers. Uzbekistan has therefore taken an exception to the principle of non-discrimination in the “Blue Book” (see Attachment 1).

Foreign investors may also purchase land for the purpose of building new manufactures on it, and for living purposes.

Taxation

The fundamental provisions of the current tax system were laid down as part of a major set of tax reforms introduced in 1991. The Uzbek State Tax Committee was established in the same period to monitor compliance, verify tax calculations and to issue instructions on the application of tax laws. The tax system has been amended on numerous occasions and remains one of the more complex aspects of the business environment in Uzbekistan.

The main taxes affecting foreign investors are as follows:

- Corporate income (profit) tax, including income tax withheld at the source of payment of income (withholding tax);
- Value-added tax and turnover charges;
- Personal income tax and other payroll charges;
- Customs duties;
- Other taxes and charges (e.g. subsurface use tax, excise tax, property tax, land tax, water use tax, ecology tax and other local taxes and charges).

Tax treatment of entities with foreign investment is broadly similar to other Uzbek legal entities. However, compared to other Uzbek enterprises, entities with foreign investment involved in production activities are provided with additional tax concessions that may reduce the tax liability during the early years of operation (see above).

According to the Tax Code, the highest rate of income (profit) tax is 35 %. This rate is usually reviewed by the Cabinet of Ministers on an annual basis and may be reduced. Thus, the effective rate for 2004 was 18%, except for entities established with foreign investors, export-oriented enterprises, entities producing children's and certain cultural goods (for which the effective rate may be further reduced), and entities engaged in mass concert performances and auction activities (for which the maximum rate of 35% applies).

The Uzbek tax legislation is currently under revision to make it compatible with international standards. The reform is to be completed in autumn 2005.

List of bilateral treaties on the avoidance of double taxation

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|--------------------------------------|--|
| 1. United Kingdom (15 October 1993) | entered into force on 10 June 1994; |
| 2. India (29 July 1993) | entered into force on 25 January 1994; |
| 3. Russian Federation (2 March 1994) | entered into force on 27 July 1995; |
| 4. Ukraine (10 November 1994) | entered into force on 13 July 1995; |
| 5. Belarus (22 December 1994) | entered into force on 11 January 1997; |
| 6. Poland (11 January 1995) | entered into force on 29 April 1995; |
| 7. Moldova (30 March 1995) | entered into force on 28 November 1995; |
| 8. Pakistan (22 May 1995) | entered into force on 12 September 1996; |

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|-----------------------------------|--|
| 9. Turkmenistan (16 January 1996) | entered into force on 27 November 1996; |
| 10. Vietnam (28 March 1996) | entered into force on 16 August 1996; |
| 11. France (22 April 1996) | has not yet entered into force; |
| 12. Turkey (8 May 1996) | entered into force on 30 September 1997; |
| 13. Azerbaijan (27 May 1996) | entered into force on 2 November 1996; |
| 14. Georgia (28 May 1996) | entered into force on 20 October 1997; |
| 15. Romania (6 June 1996) | entered into force on 17 October 1997; |
| 16. Kazakhstan (12 June 1996) | entered into force on 21 April 1997; |
| 17. China (3 July 1996) | entered in force on 3 July 1996; |
| 18. Indonesia (27 August 1996) | entered into force on 11 November 1998; |
| 19. Belgium (14 November 1996) | entered into force on 8 July 1999; |
| 20. Kyrgyzstan (24 December 1996) | entered into force on 17 March 2000; |
| 21. Greece (1 April 1997) | entered into force on 15 January 1999; |
| 22. Luxembourg (2 July 1997) | entered into force on 1 September 2000; |
| 23. Malaysia (6 October 1997) | entered into force on 10 August 1999; |
| 24. Korea (11 February 1998) | entered into force on 25 December 1998; |
| 25. Finland (9 April 1998) | entered into force on 7 February 1999; |
| 26. Latvia (3 July 1998) | entered into force on 23 October 1998; |
| 27. Israel (15 September 1998) | entered into force on 9 March 1999; |
| 28. Thailand (23 April 1999) | entered into force on 21 July 1999; |
| 29. Canada (17 June 1999) | entered into force on 14 September 2000; |
| 30. Germany (7 September 1999) | has not yet entered into force; |
| 31. Egypt (21 September 1999) | has not yet entered into force; |
| 32. Czech Republic (2 March 2000) | has not yet entered into force; |
| 33. Austria (14 July 2000) | has not yet entered into force; |
| 34. Italy (21 November 2000) | has not yet entered into force. |

Environmental Protection

The government has adopted laws to prevent and reduce industrial pollution. The most important of these include: the Law on Environmental Protection of 9 December 1992, the Water Law, the Mining Law, the Forest Law, and the Atmosphere and Air Law. The State Committee for the Protection of Nature (Goscompriroda) is the principal agency for environmental matters. Its responsibilities include the preparation and implementation of government policy in respect of the environment. Under the Law on Environmental Protection, all new construction projects, and imported and exported products must pass a mandatory ecological review. Enterprises are required to keep records about the discharge of harmful substances into the environment, and their compliance with targets for pollution and the use of natural resources. If demanded, such information must be provided to Goscompriroda.

In general, enterprises have a duty to:

- Obtain permission from Goscompriroda prior to starting industrial activity;
- Comply with established environmental regulations and discharge limits, including rules governing the disposal and handling of waste and harmful substances;
- Pay compensation for the use of natural resources and for the disposal of polluting substances or other damage caused to the natural environment.

III.1.3. Exceptions to National Treatment

Uzbekistan currently maintains one exception to the principle of national treatment in the “Blue Book” concerning the making of an investment in the energy sector. It relates to the administrative procedures applied in connection with the leasing of land (see Attachment 1).

III.1.4. Membership in International Organisations

Membership in international economic and environmental organizations

1. Energy Charter Treaty (ECT) since 12 March 1996;
2. Electric Power Council of CIS since 14 February 1992;
3. Organization of Islamic Conference (OIC) since 2 October 1996;
4. UN Conference on Trade and Development (UNCTAD) since 1992;
5. International Atomic Energy Agency (IAEA) since 15 January 1994;
6. World Meteorological Organization (WMO) since 23 January 1993;
7. UN Industrial Development Organization (UNIDO) since 1 April 1994;
8. International Labour Organization (ILO) since 13 July 1992;
9. UN Economic and Social Commission for Asia and the Pacific (ESCAP) since 31 July 1992;
10. UN Economic Commission for Europe (UN-ECE) since 30 July 1993;
11. UN Special Programme for the Economies of Central Asian States (SPECAS) since 26 March 1998;
12. International Monetary Fund (IMF) since 21 September 1992;
13. International Bank for Reconstruction and Development (IBRD) since 21 September 1992;
14. International Development Association (IDA) since 21 September 1992;
15. International Finance Corporation (IFC) since 21 September 1992;
16. Multilateral Investment Guarantee Agency (MIGA) since 21 September 1992;
17. International Centre for Settlement of Investment Disputes (ICSID) since 25 August 1995;
18. European Bank for Reconstruction and Development (EBRD) since 27 April 1992;
19. Asian Development Bank (ADB) since 31 August 1995;
20. World Customs Organization (WCO) since 28 July 1992;
21. World Bank (WB) since 21 September 1992;
22. Economic Cooperation Organization (ECO) since 28 November 1992;
23. International Organization of Automotive Transport Producers (IOPA) since 1 July 1998;
24. International Organization for Standardization (ISO) since 15 January 1994;
25. International Telecommunications Satellite Organization (INTELSAT) since 7 May 1997.

Since 1994, Uzbekistan is an observer in the World Trade Organization (WTO). In 1997, it submitted its application for accession to the Black Sea Economic Cooperation (BSEC).

III.2. Energy-related Legislation

III.2.1. Overview

During the last decade, Uzbekistan has adopted important energy-related legislation. Key elements include the Law on Subsoil, the Law on Concessions, the Law on Natural Monopolies, the Law on Rational Energy Use, and numerous Presidential Decrees. Among the latter, the Decree on Intensification of Economic Reforms in the Power Engineering Sector is of particular relevance. The existing compendium of legislation on the oil and gas sector in Uzbekistan is comparable to that of its petroleum-rich CIS neighbours. On the other hand, some essential laws are still lacking, such as a Petroleum Law and an Electricity Law. Furthermore, there is currently no single regulator of the energy sector.

III.2.2. The Law on Subsoil

The Law On Subsoil of 13 December 2004, No. 444-II stipulates the main principles of prospecting and development of hydrocarbons and minerals.

The Law aims to regulate the scope of relationships arising when possessing, using and disposing of subsoil (mining relations). The objectives of the Law include:

- To ensure the rational and complex use of oil, gas and mineral deposits to satisfy the demand for mineral raw materials and other requirements;
- To protect deposits and the environment;
- To secure safety in the related work;
- To protect the rights of the users of deposits and interests of individuals, societies and the State.

The Law on Subsoil was first introduced on 23 September 1994 and amended in 1997, 1998 and 2000, before the new version was adopted in 2002/

The Law declares that the subsoil is the exclusive property of the state and highlights the central role of the state in the field of mineral resources. However, the ownership of products from the subsoil deposit may be obtained by the user of the deposit in accordance with the procedure established under this Law. The Law stipulates that users of the subsoil deposit may be the State, legal or natural persons.

The types of the use of subsoil include, inter alia, the following:

- Geological study;
- Mining of minerals;
- Refining;
- Construction and operation of underground storage.

Subsoil deposits are made available for use on a fixed-term or permanent basis. The period of use may be extended, following submission of the application by the deposit user to the agency that issued the license.

The fixed-term uses are set up for:

- Geological studies - for a period of up to 5 years;
- Production of natural resources - for a period of development and production taking into account technical and economical factors.

The subsoil deposit may be used on the basis of a license. It may cover several types of the use simultaneously. The license should include the following information:

- Holder of the license;
- Purpose of the work;
- Preliminary boundary and depths of the area allotted for the use;
- Period of use of the subsoil and date of start of work;
- Terms of use of the area of subsoil.

Licenses in Uzbekistan fall within the exclusive jurisdiction of the central government, unlike the situation in Russia, where license approval is required by both federal and regional authorities.

Licenses are granted within 30 days according to the results of public auctions or direct negotiations of legal and natural persons with the agencies authorised to issue them.

The right to use the subsoil deposits may be limited, suspended or terminated in specific cases, such as the need to protect human life and health, natural disasters, non-use of the deposit for a period of one year, failure of the payments, or violation of rules for the use of subsoil. The Cabinet of Ministers shall establish the relevant procedure.

The license holders have the right to use the results of their activity, including geological and other information on the subsoil and mined minerals. This information is protected under the procedure established by legislation.

III.2.3. The Law on Natural Monopolies

The Law “On Natural Monopolies” (No. 398-I) of 24 April 1997, as amended on 19 August 1999 (No. 815-I), aims at regulating the activities of natural monopolies on the goods market of Uzbekistan, and at ensuring a balance of interests between natural monopolies, the State and consumers. The Law defines that the natural monopoly is a state of a market, in which the creation of competitive conditions is not possible or economically inexpedient due to technical reasons.

Natural monopoly activities in the energy sector include:

- Extraction of oil, gas condensate, natural gas and coal;
- Oil, petroleum products, and gas pipelines;
- Production and transmission of electric power and thermal energy; and
- Electric services accessible to the public;

Regulation is carried out by the following methods:

- Price adjustments, through the establishment of prices (tariffs) or their ceilings;
- Definition of consumers which are entitled to obligatory service and the establishment of a minimum level of supply in case that it is impossible to meet the full demand in goods provided by natural monopolies.

The decision to apply a specific method of regulation depends on the nature of the monopoly and its activities. Price regulation is exercised by an authorized body, which is the Ministry of Finance of Uzbekistan. It considers the price proposals (tariffs) of natural monopolies and promulgates decisions that set tariffs at a certain level. The Cabinet of Ministers defines the consumers entitled to obligatory service by natural monopolies.¹²

The Antimonopoly Agency executes control over the activities carried out by the subjects of natural monopolies. The tasks of the Agency include, inter alia,

- The observance of agreements concerning the volume of goods sold to consumers;
- The observance of the procedure for price determination and the application of prices (tariffs) for goods.

For the purpose to set prices and tariffs, the natural monopoly shall present to the Agency a price or tariff calculation, and the Agency shall consider the price or tariff, taking into account the impact on consumers.

III.2.4. Law on Production Sharing Agreements (PSAs)

The Law on Production Sharing Agreements (No. 312-II) was introduced with effect from 7 December 2001, and amended on 30 August 2003. It specifies definitions and terms under which foreign investors may enter into PSAs. In particular, the Law stipulates that subsurface plots to be explored under a PSA shall generally be limited to those plots that have not been proven to have natural resources stores. The proven natural resources stores may be included in a PSA only in cases when there is a lack of domestic financial and technical means for the exploration of such stores, provided that this is useful for the republic's economy.

The Law regulates the conclusion, implementation and termination of agreements (PSAs) on the division of production, when investing in the search and prospecting of fields and mining of minerals in Uzbekistan. Under the agreements, the Republic of

¹² Investment report of Uzbekistan, rev.4, Energy Charter Secretariat, dated on 31/07/2003

Uzbekistan assigns to a foreign investor - on a reimbursable basis and for a fixed term - exclusive rights to search and prospect oil and gas fields, or, to mine minerals at a specified depth area, and to execute associated work. The investor undertakes to carry out the work at his own expenses and risk. If an international agreement the Republic of Uzbekistan enters into stipulates rules other than those in the law, the former is applicable.

The Law stipulates that the subsoil areas to which the right of use is assigned, are defined by the Cabinet of Ministers of the Republic of Uzbekistan. The areas allotted under PSAs are those where the existence of minerals has not yet been proved and much financial resources and up-to-date technologies are needed. Depth areas of prospected mineral fields may likewise be included under specific conditions, in particular the non-availability of financial and technical means to develop large prospected mineral fields, and the necessity to attract special up-to-date technology.

The Law also specifies the procedure for entering into PSAs. In general, PSAs shall be concluded following open, competitive tenders under a procedure established by the Cabinet of Ministers of the Republic of Uzbekistan. In exceptional cases, PSAs may be concluded without holding an open tender. This is particularly the case for strategic potential investors, with whom direct negotiations may take place.

The license for the right to use depths areas specified in the PSA is issued to the investor according to the procedure established by the Cabinet of Ministers or the authorized agency. The time limit for the issuance of the licence is five working days from the date of signing the PSA.

The PSAs include the following:

- Description of the investment project and term of its validity;
- Procedure for the assignment of the depths area to the investor's use;
- Rights and obligations of the Parties;
- Terms of execution of work and elaboration of working programs and budgets;
- Procedures for record-keeping and accounting;
- Terms of taxation and discharge of other payments;
- Procedures for compensation of expenditure and terms of the division of production;
- Procedures for exports of the investor's share;
- Procedures for control over the agreement's implementation;
- Procedures for settlement of disputes;
- Procedures for termination of the agreement.

The agreement should include a provision on the possibility to restrict, suspend or terminate the right of the investor to use allotted depths areas where a threat to environmental safety or other force majeure arises.

The investor has the right to be reimbursed for the allowable costs connected with the execution of work by him under the PSA. These costs need to be specified by the budget and approved in accordance with the procedure established by the Law. However, the following taxes, charges and fees paid by the investor, or operator are not included into allowable expenses:

- Taxes, charges and other obligatory payments stipulated by the legislation;
- Funds designed to voluntary insure commercial and other risks;
- Means transferred to trust funds of Uzbekistan;
- Allocations for social needs of foreign workers;
- Funds to purchase information and data prior to conclusion of the agreement;
- Fines and penalties;
- Expenses incurred as a result of negligence in carrying out operation;
- Expenses associated with the sale of the investor's produce;
- Voluntary donations and contributions;
- Expenses exceeding restrictions specified by the Law.

A structure of allowable expenses is specified by the Cabinet of Ministers of the Republic of Uzbekistan.

The allowable expenses are compensated at the expense of part of produce mined by the investor at depths areas allotted to him for the use ("compensation produce") according to the agreed schedule. Expenses that are not reimbursed in the current calendar year are subject to reimbursement in the following years within the period of duration of the agreement. The maximum allowable refundable expenses within a period are stipulated in the agreement.

The production shall be divided between the State and the investor under the terms and procedure of the agreement. The State passes compensation produce, as well as a part of profitable produce, considered to be the investor's share in accordance with the terms of the agreement, into the ownership of the investor. Such produce may be either imported, without any restrictions, outside the Republic of Uzbekistan or sold by the investor on the domestic market on terms and in keeping with the procedure specified by the legislation. In case where extraordinary conditions happen in the Republic of Uzbekistan, the state is entitled, having notified the investor not less than thirty days in advance, to purchase the necessary volume of the investor's produce. In this case, the terms of purchase of the produce, as well as compensation for the investor's possible losses are specified by the agreement.

The Law also specifies the taxes that would be payable by the investors under PSAs. The following taxes and payments are imposed upon during validity of the agreement:

- Income (profit) tax;
- Land tax;
- Tax imposed on the use of water resources;
- Tax imposed for the use of petroleum or mineral deposits, which consists of bonuses and royalty;
- Environmental pollution fee;
- Payroll taxes.

Investors as well as their contractors and sub-contractors are exempt from all other taxes, charges and obligatory payments associated with work under the PSAs. Goods, works and services provided to the investor by resident legal entities are subject to VAT at zero-rated. Customs payments shall not apply to import of goods, works and services required for the purpose of the PSA, nor to the export of the investor's share of production.

Also included in the Law is a stability clause prohibiting unilateral adverse changes during the term of the contract, a government guarantee to uphold the investor's rights, and dispute resolution either in a court by international arbitration. Unlike Russia's PSA Law and similar Kazakh legislation, the Uzbek PSA Law lacks local content and mandatory local hiring requirements.

III.2.5. The Law on Concessions

Concessions in Uzbekistan are mainly governed by the Law "On Concessions" of 30 August 1995. Little information is available, though, with regard to the actual use of concessions in Uzbekistan. Several foreign investors have undertaken natural resources projects under the rules of the Law "On Production Sharing Agreements".

According to the Concession Law, a concession is defined as a permission issued on behalf of the State to a foreign investor for the performance of certain economic activities, by granting to such foreign investor property, land plots or subsoil areas on the basis of a concession agreement.

According to the Concession Law, in transferring to a concessionaire the right of possession and use of property, land plots or subsoil, the State reserves the exclusive right to dispose of them. The foreign investor may only dispose of the product, or income generated as a result of the concession activities.

The Government of Uzbekistan has the pre-emptive right to purchase products from the concessionaire. Foreign investors are thus concerned that they will be forced to sell products at a price specified by the State and lower than the market price.

Concessions may be granted on the basis of a tender (auction), or – exceptionally - by way of direct negotiations between the concessionaire body and the potential investor. The Concession Law contains a mandatory list of terms and conditions that must be

included in a concession agreement. Under the Concession Law, the term of a concession agreement may not exceed 15 years. The Government of Uzbekistan has the right to extend such term at its own discretion. A concession agreement may not be terminated unilaterally, except where a court has decided that one of the parties has infringed it, or if the concession authority discovers that the concessionaire provided false information at the time at which the agreement was concluded.

The concessionaire must make three types of payments in connection with a concession agreement: (i) a fee to register the concession agreement; (ii) a concession fee, as provided for by the concession agreement; and (iii) taxes and other payments required by Uzbek law. A concessionaire may freely dispose of its profit only after payment of the above-mentioned fees, taxes and payments.

According to the Concession Law, foreign investors are to keep accounts and financials in accordance with the Uzbek law, which does not correspond with the international accounting standards.

Another major bottleneck of the Concession Law making it unattractive is the standard provision that disputes between a concessionaire and the concession grantor fall, in principle, under the exclusive jurisdiction of economic courts of Uzbekistan. Parties to a concession agreement are not entitled to refer a dispute to international arbitration, unless this is permitted under an international agreement to which Uzbekistan is a party.

To date, the existing regulatory framework for both concessions and production sharing agreements has failed to attract major foreign investment to Uzbekistan.¹³

III.2.6. The Law on Rational Energy Use

To promote the efficient use of natural energy resources, Uzbekistan has adopted the Law “On Rational Energy Use” of 25 April 1997. The objective of this Law is to establish the legal foundations for the conservation of national energy resources, and the efficient use of energy and the productive capacity. The Law deals with the activity of legal and natural persons concerning the extraction, production, processing, storage, transportation, distribution and consumption of fuel, electricity and heat.¹⁴

III.2.7. The Presidential Decree on Intensification of Economic Reforms in the Power Engineering Sector

The Presidential Decree on “Intensification of Economic Reforms in the Republic of Uzbekistan’s Power Engineering Sector” was issued in 2001. Up to now, all restructuring activities in the power sector of Uzbekistan are based on it. According to this Decree, restructuring priorities include¹⁵:

- Gradual de-monopolization of the power industry, reduction of the level of state regulation, development of a competitive environment in the electricity market, assuring equal opportunities and conditions of access for economic subjects to the transmission lines;

¹³ Cf. EBRD Strategy for Uzbekistan, 4 March 2003.

¹⁴ Country Report of Uzbekistan, TACIS INOGATE, Feb. 1999.

¹⁵ Documents accessed at www.pravo.uz on 15.04.2004.

- Gradual transformation of large enterprises in the power industry (thermal power plants, CHPs, enterprises of electrical networks, etc.) to shareholding companies (“corporatization”);
- Accelerated wind-down of government participation and privatization of the social infrastructure facilities, the enterprises and organizations carrying design, construction and repair works, and the establishment on the basis of their assets of non-state enterprises;
- Enhanced participation of foreign investment in the corporatization of power engineering enterprises, the reconstruction, technical upgrading and development of the generating facilities and the electrical networks;
- Introduction of market principles and mechanisms in the system of management and the business of production, transmission and sale of electric energy;
- Ensuring the coordinated and balanced development of the power facilities and the coal industry.

The Decree established an “Independent State Agency on Supervision” in the power industry (Uzgosenergonadzor), which reports to the Cabinet of Ministers. The main functions of Uzgosenergonadzor include:

- Drafting, release and control over the compliance to norms and regulations in electricity production, transmission and consumption;
- Development and control of compliance to safety rules and regulations in electricity production, transmission and sale (distribution);
- Expert participation in the evaluation of projects and the commissioning procedures at newly constructed facilities, as related to the safety assurance of electricity production, transmission and consumption;
- Licensing of electricity production at stationary power stations connected to the unified electric grid, in compliance to established rules and regulations.¹⁶

Although named “independent”, the State Agency on Supervision in fact reports directly to the Council of Ministers. The Agency’s personnel is appointed by the government, and funding for its activity is provided by Uzbekenergo. The Agency’s main function is to set up the legislative framework and regulations concerning the power engineering sector and coal industry and to supervise their activities.¹⁷

¹⁶ Electricity Sector Reform: the pan-European, CIS and Mediterranean dimension. Ref. 2003-030-0397. Document accessed at www.eurelectric.org on 29.04.2004

¹⁷ Jahongir Mavlany, Privatization of Small Companies in Energy Sector, 2001.

IV. Market Structure and Privatisation

IV.1. Overview

In the year of 2004, the programme of macro-economic and structural reforms developed in close cooperation with the IMF and other international financial institutions and carried out by the government resulted in strong economic results, in particular, in a more than 7% GDP growth, an external current account surplus in excess of \$1 billion and a growth of gold and foreign exchange reserves exceeding 30%. Earlier, the IMF forecasted 2.5% growth of the Uzbek economy in 2004 and 2005 in its World Economic Outlook. The Asian Development Bank forecast was 3% and the EBRD projection was also 2.5%. The government was expecting 6% GDP growth this year and 7% in forthcoming year.

An IMF mission that visited Uzbekistan in the fall of 2004 noted with satisfaction that soum convertibility into foreign exchange continued to operate fairly successfully and that it facilitated the achievement of strong economic results. This also encouraged a dynamic growth of exports including through an increase in export of high value added goods. The mission underlined an acceleration in the pace of economic reforms carried out by the Uzbek government, in particular, an increased pace of privatisation, the transformation of loss making and inefficient shirkats into private farms, the beginning of introduction of a fully funded pension system and administrative reforms aimed at reducing the Government's presence in the management of the economy. The mission congratulated the government on excellent results achieved in the 2004 budget execution and welcomes, in particular, the decision to stop relying on budget financing by the Central Bank of Uzbekistan (CBU) and to pursue this policy in 2005.

In 2005, Uzbekistan plans to pursue a similar macroeconomic programme and continue structural reform. To achieve the goals set, the government is determined to further ensure macroeconomic stability and to launch a new stage of reforms in several sectors, which include the energy utilities along with banking, housing, etc. Tax legislation will be enhanced, a Treasury system for the budget execution will be established, and a legislative framework for external trade activities in line with the WTO standards will be developed.

The mission welcomed the commitment of the Central Bank to ensure that no cash shortages occur in future and to meet all banks' requests for cash. In the energy sector, this measure will help overcome non-cash payments and offsets. The government and CBU emphasised that the process of encouraging the use of plastic cards would be strictly voluntary for all parties.¹⁸

Overall, the government's macroeconomic and monetary policies are expected to establish prerequisites for more market-oriented evolution of the energy sector and remove some substantial barriers to foreign investment in the energy sector. In particular, steps are planned to bring pricing more in line with market requirements by carrying out partial price liberalization. However, the Government continues its policy of direct and indirect price regulation in many key areas of the economy.

Direct price regulation is done by:

¹⁸ UzReport.com, 18.12.2004.

- (1) Declaring to government financial departments ceiling prices of products of entities listed in the Government Registry of monopolies. For certain groups of products regulation is done by the Council of Ministers, and for some foodstuffs the ceiling prices are set in “protocols” between producers and traders/retailers. To be entered in the Registry of monopolies, an entity must have a “dominating position on the market”. “Dominating position” is defined in Article 3 of the Law on Competition and Restriction of Monopolistic Practices on Commodity Markets as a share on the market exceeding 65% or 35-65%, in the latter case provided that the share is stable with regard to the shares of the competitors. As of 1 October 2002, the registry listed 428 entities/enterprises and 271 types of products.
- (2) Regulation of the prices of goods and services of natural monopolies. The Law on Natural Monopolies lists as such oil, gas, condensate and coal production, transportation of oil, refined products and gas via pipelines, production and transportation of electricity and heat, railroad transportation, services by public electricity grids and the post office, water and sewage utilities, service provided by ports and airports.

Although such regulatory methods do help mitigate the effect of monopolies on markets, the experience of their application also indicates that prices have so far tended to be set below cost recovery level for many energy sector goods and services, though the gap has become smaller. On the other hand, since pricing is supposed to be cost-reflective, producers have few incentives to cut costs and try justifying any costs in their submissions to the regulatory authorities.

Pricing and tariff reform is a key prerequisite for endeavouring into other aspects of energy sector reform, such as commercialization, privatization, and eventually, in the long run, true market opening and competition. Due to the social implications of rapidly increasing prices and tariffs of energy sector goods and services, however, the Government has adopted an unhurried approach, spacing tariff reform schedule over several years. In the meanwhile, various tools designed to mitigate the impact of price and tariff reform, as well as to reduce implicit and explicit subsidies, are planned for deployment. There is certainly significant potential for realizing economies and improving energy sector efficiency: Uzbekistan’s energy intensity was the fourth highest in the CIS in 1999 and exceeds that of the EU about 6 times.¹⁹

In privatization, the current policy is to offer to investors minority stakes in certain key companies, particularly in the petroleum industry, and to carry out small-scale privatization in some sub-sectors, for example retailing of refined oil products. This approach, combined with certain features of the macroeconomic environment, has generally not resulted in the attraction of significant investor interest in the past.

Apart from privatization, private participation is possible in some sub-sectors via other vehicles. For example, production sharing agreements have been signed for oil and gas exploration and production, and some joint ventures have been established. Despite these positive recent trends, however, FDI in the energy sector remains episodic. The most significant ones are based on PSAs.

¹⁹ Cf. EBRD Strategy for Uzbekistan (2003), p. 30-31.

The Government is working towards the establishment of a comprehensive framework that would be more inductive to investment and private participation in the energy sector. For the time being, however, the sector remains dominated by state-owned, vertically integrated monopolies. The market structure in each subsector and Government plans to move to market-oriented structures will be discussed in greater detail below.

Table 3 shows a forecast of Uzbekistan's demand for main energy carriers during the period until 2010.

Table 3: Forecast of Uzbekistan's demand for main energy carriers during the period until 2010

| Energy type | 1990 | 1995 | 2000 | 2005 | 2010 |
|-----------------------|--------|--------|--------|---------------|---------------|
| Oil (mln toe) | 12.5 | 7 | 7.33 | 7.8-8 | 8.5-10 |
| Coal (mln toe) | 3.4 | 1.05 | 0.88 | 1.5-1.6 | 2-2.1 |
| Gas (mln toe) | 28.6 | 34.2 | 41.32 | 44.1-47.1 | 45-52 |
| Electricity (mln kWh) | 54.2 | 46.2 | 46.84 | 54.5-60.4 | 59.4-70.1 |
| Heat (TJ) | 245765 | 236554 | 194266 | 226565-252464 | 234879-280934 |

Source: CAH, 1999, IEA, 2002b.

IV.2. Oil and Gas

Uzbekneftegaz (UNG), which holds a monopoly over Uzbekistan's entire oil and gas complex, was founded in 1998 by Decree of the President of the Republic of Uzbekistan No. UP-2154 dated 11 November 1998, followed by Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 523 dated 15 December 1998 "On organization and activity of UzbekNefteGaz National Holding Company". On 22 April 1999, the company was entered in the Registry of the Ministry of Justice under No. 1202. Subsequently, the statute of the company and its structure were changed several times. The latest such change was carried out on the basis of Decree of the Cabinet of Ministers dated 21 October 2003 "On the streamlining of the management structure of the National Holding Company UzbekNefteGaz". In compliance to this Decree, UNG incorporates five companies that engage in production and a number of other affiliates that provide services to the five main operational entities. Four of the production-related companies are joint-stock companies that in their turn act as sub-holding companies handling the assets of operating enterprises, and the fifth is the Shurtan Gas Chemical Complex:

- Uzgeoburneftegazdobycha (Tashkent) is an upstream company responsible for exploration and production of oil and gas. The company carries out field exploration, development, oil, gas and gas condensate production (including drilling and on-field hydrocarbons conditioning), and natural gas processing.
- Uztransgaz (Tashkent) manages gas transportation facilities delivering gas to customers in the country, to export destinations and in transit. The company is also responsible for the construction and major overhauls of main gas pipelines and operates three large underground gas storages.

- Uznefteprodukt (Tashkent) handles the assets of the Fergana, Altyaryk and Bukhara refineries, markets oil products to wholesale and retail customers, operates oil product depots, gas stations, and oversees enterprises that sell refined products on the domestic market.
- Uzneftegazmash (Chirchik) is a manufacturer of petroleum and petrochemicals industry equipment; it also makes equipment for petroleum-related sectors of the economy.
- The Shurtan Gas Chemical Complex was constructed with sovereign guarantee-backed loans and UNG funds and engages in gas conditioning, compression and the production of polyethylene, LPG, sulfur, and condensate stripped from the gas stream.

In 2004, Uzbekistan completed the restructuring of UNG by merging Uzneftegazstroy (which until that moment existed as a provider of construction services within the holding) into UNG. At a joint meeting, shareholders of UNG and Uzneftegazstroy decided on a new structure of the merged company with an equity capital of 172 billion sums, divided into shares with a 1,000 sum nominal value. The equity ownership break-down is as follows: 99.7% owned by the state, 0.28% by Ukraine's Industrial Union of Donbass (ISD, Donetsk, Ukraine), 0.02% by employees. Part of the state's stake in UNG (48.7%) will be sold to a foreign strategic investor. The state plans to retain a 51% controlling interest.²⁰

Figure 2 below shows the organizational structure of the UzbekNefteGaz National Holding Company.

In total, the national holding company UNG consists of 154 enterprises and organizations of quazi-independent legal status, 87 of which are the joint-stock companies and 67 - government enterprises.

As a joint-stock company, UNG is managed in compliance to the requirements of the Law of the Republic of Uzbekistan "Concerning joint-stock companies and protection of stockholders". The top management of UNG reports to the Stockholders Meeting. A Supervisory Board elected by the Stockholders Meeting coordinates the activities of the company. The entire financial and economic activity of the holding is managed by a corporate executive body – a Board, headed by its Chairman.²¹ The members of the Board are appointed by the government.

Exports of any product produced at any affiliate of UNG is only carried out by Uzneshneftegaz, a UNG affiliate not included in the lists of companies that may be privatized. Uzneshneftegaz accumulates forex and allocates it to UNG affiliates. There is also a system of non-cash settlements between UNG affiliates that is controlled by the Council of Ministers. In dealings with other parties, UNG uses cash (bank transfers).²²

Since independence, the Uzbek government has invested more than \$1.2 billion in UNG. In addition to that the inflow of foreign investments has increased recently

²⁰ UZA, July 9, 2004, quoted in FSU Oil & Gas Monitor, 14 July 2004, p. 19.

²¹ Source: Inogate, with changes and additions.

²² Cf. Sharma, op. cit., p. 21-22.

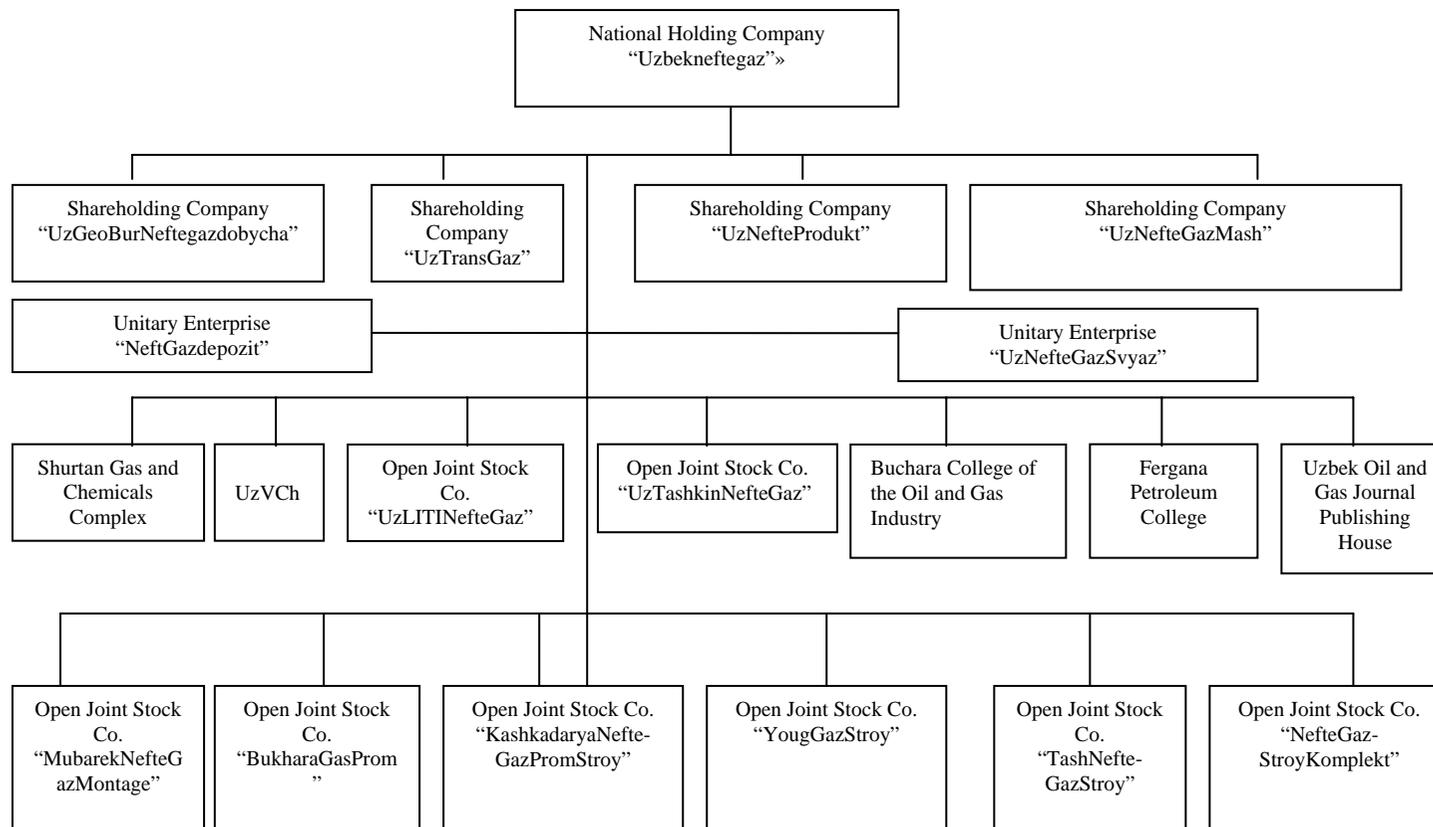
thanks to liberalisation of currency controls in the Republic. The Uzbek national privatization program and Decree No. 119 on Privatization prioritized the sale to strategic investors of up to 49% of UNG shares, as well as up to 49% of the shares of its subsidiaries Uztransgaz (gas transportation) and Uzgeoburneftegazdobycha (oil and gas exploration, drilling services), Uznefteprodukt (oil refining, products distribution) and Uzneftegazmash (equipment manufacturing, procurement and services) and Uzavtogaz (alternative engine fuels). In April 2000, the President of Uzbekistan announced these privatization initiatives and also announced that foreign companies who invest in exploration and extraction would receive tax exemptions and options to produce any oil or gas they discover for a fixed period of time²³

With technical assistance from an Enterprise Institution Building Loan (EIBL) extended by the World Bank in 1999, a group of consultants, led by Banque Nationale de Paris - Paribas (BNPP), have been working in 2002 and 2003 on a diagnostic study of UNG and its legal, regulatory, operational, technical, and financial status, from a point of view of privatizing UNG in accordance with the Decree No. 119 on Privatization, which is based on the Law on Privatization of 1991. From the diagnostic report it is evident that significant preparatory work is needed in order to realize privatization. The work required is varied, ranging from administrative questions, possibly within the remit of the GKI/CCPB, to those that will require evolution of relevant laws and decrees, within the orbit of Ministries and other Government Agencies. What is required is a clear consensus, political will and a road map to remove obstacles and achieve a successful privatisation in an acceptable time frame.²⁴

²³ US DOE-EIA Energy Overview of Uzbekistan (2002).

²⁴ Cf. Sharma et al., op. cit., p. 21.

Figure 2: Management Structure of the national Holding Company “Uzbekneftegaz”



After some early inconclusive interest, western companies have for a long time largely ignored opportunities to participate in Uzbekistan's oil and gas sector because of the country's cumbersome legal structures and the government's reluctance to introduce reforms. However, in the last two years the situation started to change. The Russian companies have been active (especially since 2002), and recent expressions of interest have been received from Chinese, Malaysian and Korean companies (see next sections). This interest has been highly focused upstream.

IV.2.1. Upstream Activities

IV.2.1.1. Recent Exploration and Production Activities

Oil

Uzbekistan has proved oil reserves of about 600 million barrels (over 91 million tons), significantly smaller than those of Russia (60 billion barrels), Kazakhstan (9 billion barrels) or Azerbaijan (7 billion barrels), and roughly on par with Turkmenistan (500 million barrels). Uzbekistan's oil resource base (in terms of proved, in-place or ultimate reserves) is much smaller than its gas resource base. Proved gas reserves stand at about 1.9 trillion cubic meters, exceeding oil reserves on an energy equivalent basis nearly 20-fold. Both oil and gas reserves could increase as a result of more active exploration and the introduction of new technologies at existing fields.²⁵

Much of the liquids (oil) production in Uzbekistan is condensate separated from the gas stream at gas processing facilities. In recent years, natural gas liquids output has grown, while crude oil output has decreased, and at present natural gas liquids provide more than half of the oil production in Uzbekistan (cf. Table 4). The growth of oil production has been sufficient to turn Uzbekistan from a net oil importer into a marginal net oil exporter, but stagnating production and growing domestic consumption over the last few years may soon necessitate oil imports again, unless more investment is directed to oil exploration and production.

Table 4: Oil production (crude oil, shale oil, oil sands and natural gas liquids)

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Production (thousand barrels daily) | 69 | 69 | 79 | 94 | 124 | 172 | 174 | 182 | 191 | 191 | 177 | 171 | 171 | 166 |
| Crude oil only (bpd) | | | 36 | 47 | 75 | 115 | 115 | 112 | 116 | 102 | 91 | 74 | | |
| Production (million tons per year) ²⁶ | 3.45 | 3.44 | 3.97 | 4.68 | 6.21 | 8.61 | 8.68 | 9.08 | 9.57 | 9.54 | 8.83 | 8.54 | 8.53 | 8.30 |
| Consumption (bpd) | | | 190 | 177 | 168 | 180 | 140 | 140 | 143 | 139 | 142 | | | |

Source: BP Statistical Review of World Energy 2004 and US DOE-EIA.

There are 188 oil and gas fields, over 60% of which are in the Bukhara-Kiva region, which accounts for about 70% of Uzbekistan's oil production. The second largest is the Fergana region, which contains about 20% of Uzbekistan's oil fields. There are also oil deposits being developed in southwest Uzbekistan at Kokdumalak, Northern

²⁵ BP Statistical Review of World Energy 2004, BP-TNK estimates quoted in Media Press and FSU Oil & Gas Monitor (28 April 2004, p. 21), and U.S. DOE-EIA.

²⁶ Converted at 1 barrel per day = 50 tons per year.

Urtabulak, Kruk and Umid. Oil exploration is also being pursued on the Ustyurt plateau and in the Aral Sea.

At this moment, crude oil is produced at 55 fields and condensate at 22 fields. Oil (crude and condensate) output is projected to fall over the next few years, since producing crude oil fields experience formation pressure decline and water cut increase. This is also valid for the largest oil field (Kokdumalak located in the Mubarek area) which produces over 50% of the crude oil output (about 3.7 million tons per year). Similarly, the four largest gas condensate fields (Shurtan, Kokdumalak, Zevardi and Pamuk) have been onstream for many years now. Declining gas production at these fields, which provide 95% of gas output, leads to a fall in the production of condensate, too.

On the whole, UNG ensures replenishment of depleting oil reserves through enhanced funding of exploration, use of deep and horizontal directional drilling and the attraction of large foreign investment. The Uzbek government is offering production sharing agreements (PSAs) in over 80 of the oil fields (estimated to contain about 1.2 billion barrels of oil), which is expected to attract \$400 million in investment. In addition to PSA, joint ventures are also an available format for upstream petroleum industry investment in the country.

Additional major capital flows may be in prospect. With backing from the authorities, the governments of the People's Republic of China (PRC) and the Russian Federation separately made public their intention to invest a total of about \$3 billion in the country over the next 5 years. It is envisaged that this will be directed mainly to the oil and gas, fertilizer, energy, telecommunications, irrigation, and financial sub-sectors. Russian companies have recently stated their aim of investing close to \$2 billion in Uzbekistan's oil and gas sector.

Details about key upstream projects with foreign participation are provided in Attachment 2.

Table 5 lists crude oil prices and exchange rates in 2001-2003.

Table 5: Crude oil prices and exchange rates, 2001-2003.

| | 2001 | 2002 | | | 2003 | | |
|----------------------------------|--------|----------|----------|------------|------------|----------|----------|
| | 1 July | 1 April | 1 August | 1 December | 1 February | 1 April | 1 June |
| Crude oil, \$/ton | 25.88 | 19.37 | 19.66 | 18.18 | 20.59 | 20.65 | 21.36 |
| Official exchange rate, sum/\$ | 388.08 | 695.38 | 761.25 | 920.02 | 960.38 | 968.69 | 971.10 |
| Commercial exchange rate, sum/\$ | 688.04 | 696.68 | 764.00 | 923.00 | 960.00 | 968.00 | 972.25 |
| Street rate, sum/\$ | 963.55 | 1,435.00 | 1,300.00 | 1,260.00 | 1,170.00 | 1,150.00 | 1,060.00 |
| Quazi-market rate, sum/\$ | 618.27 | 991.23 | 976.75 | 1,056.01 | 1,044.23 | 1,041.21 | 1,006.66 |

Source: Sharma et al., *op. cit.*, p. 40.

Gas

There are 52 natural gas fields in Uzbekistan, of which 27 are under production. However, major deposits are only 12, including Shurtan, Zevardi, Alan, Dengizkul-Hauzak, Kokdumalak, Pamuk, and Kultak. These seven deposits, which account for

95% of gas production, are mainly in the Amudarya basin and the Mubarek area in the southwest of Uzbekistan²⁷.

Table 6 provides data on gas production and wholesale gas prices in Uzbekistan. Uzbekistan ranks among the top 15 countries in the world in production.

Table 6: Natural gas production and wholesale prices

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|-------------------------------------|------|------|------|------|------|------|------|------|------|-------|---------------|-------------|
| Production, bcm/y | 39.9 | 42.0 | 44.0 | 45.3 | 45.7 | 47.8 | 51.1 | 51.9 | 52.6 | 53.5 | 53.8 | 53.6 |
| Wholesale price, \$/1000 cm (range) | | | | | | | | | | 11.55 | 10.49 - 13.07 | 14.36-17.58 |

Source: BP Statistical Review of World Energy 2004; Sharma et al., op. cit., p. 40.

Oil Shale, Tar Sands, etc.

Known oil shale resources in Uzbekistan exceed 40 billion tons, located mostly in South Uzbekistan. While shale contains considerable amount of organic matter (~29%), it is also rich in sulfur (up to 5%), copper, zinc, some heavy and rare earth metals. Consequently, technologies deployed for the production and processing of shale in other countries, for example in Russia and in Estonia, are not suitable for developing Uzbekistan's oil shale resources. In addition, most of the shale is in deep formations and would have to be mined underground. On the positive side, the ash residue of the shale is suitable for the production of various construction materials and possibly as an additive to certain fertilizers.

At various moments in time, Uzbekistan's shale resources have been considered for development by technologies that would allow valuable heavy and rare earth metals to be co-produced, thus enhancing the economics of the project, but little has been done beyond desk studies and preliminary assessments. The two most promising deposits are Baysun (55 million tons, partially accessible for open cast mining) and Dzhambay (~68 million tons).

The key to eventually developing Uzbekistan's oil shale resources is technology. The State Geology Committee of Uzbekistan is studying the possibility to remove excess sulfur by bacterial and bacterial-chemical treatment.²⁸ However, given the significant lead time and resources needed for the development and deployment of efficient technologies for commercial production of shale in the country, it is unlikely that shale will be utilized to any practical extent within the next 10-15 years.

IV.2.1.2. Processing, Distribution, Consumption

Oil

Crude oil conditioning (separation, desalination, etc.) is carried out at the producing fields by the operating divisions of UNG. It is then delivered either directly to refineries by pipe or to railroad terminals for shipment to refineries belonging to UNG. For details, see section on pipelines below.

²⁷ US DOE-EIA Energy Overview of Uzbekistan (2002); Sharma, op. cit., pp. 6-7.

²⁸ Cf. UzReport.com, 5 March 2002.

With the exception of crude oil produced at the Kokdumalak field straddling Uzbek-Turkmen border, all of the crude oil produced in Uzbekistan is delivered to domestic refineries. Refinery throughput is below capacity and UNG has been looking at options to import crude oil. In 2003, small quantities of oil produced at the Kumkol field in Kazakhstan by PetroKazakhstan (formerly Hurricane) began shipping to Uzbekistan by rail from the pipeline terminal at the Shymkent refinery in Kazakhstan. The same pipeline continues across Uzbekistan to Turkmenistan, but this section has been idled for years now.

Gas

Most Uzbek natural gas is sour (high in sulphur content) and the sulphur level must be reduced considerably in processing. The Mubarek gas processing plant is the largest one in the nation and it has a capacity of over 28 bcm/year. Output of all gas processing plants exceeds 40 bcm/year.

In December 2001, the Shurtan Gas Chemical Complex, located at the Shurtan gas condensate field in south-western Uzbekistan, started operating. The complex represents an investment of \$1 billion. Eximbank guaranteed a loan by Chase Manhattan Bank to finance U.S. exports from four companies to design, build and commission the Shurtan plant. Export credit agencies from Japan and Germany, as well as the government of Uzbekistan provided additional financing. The borrower is UNG. There is a sovereign guarantee with repayment over ten years beginning in 2001.

The gas processing plant at the Shurtan Gas Chemical Complex is able to clean the gas, strip it of liquids, and compress it for delivery to other plant installations and pipelines. The compressor station has a capacity of about 13 bcm/year. The Complex is able to produce 125,000 tons of polyethylene, 137,000 tons of LPG, and 37,000 tons of condensate per year.

IV.2.2. Oil and Gas Pipelines

IV.2.2.1 Oil Pipelines

Domestic

In Fergana Valley, most fields are serviced by a gathering and delivery pipeline system that connects to the Fergana and Altyaryk refineries. The system is operated by the Asaka Department of Main Oil main Pipelines and services the Andijanneft upstream operating affiliate of UNG. A separate gathering and delivery system connects the fields to the Aktash railway oil terminal, where crude is loaded on railcars for delivery to refineries.

Oil produced in the Surkhandarya region is delivered via a gathering system to the nearest railway oil transshipment terminals.

Most of the growth in liquid hydrocarbons production in the country is expected from fields in the Bukhara-Khiva region. For this reason, an oil pipeline from Angren to the Fergana Refinery via the Kamchik pass is underway.²⁹

²⁹ Source: Inogate.

International

Uzbekistan's only current export option for crude oil is to reverse an existing crude oil pipeline that originates at Omsk (Russia) and ends at Chardzou (Turkmenistan). It used to deliver crude oil to refineries in Kazakhstan (Petropavl and Shymkent), Uzbekistan and Turkmenistan (Seidi-Chardzou). A section of this pipeline in Kazakhstan (from Petropavl to Atasu) is expected to be used from north to south for exports to China. Another section located in Kazakhstan (between Karakoyun and Atasu) is considered by PetroKazakhstan (formerly Hurricane) for transporting oil in reverse (south to north) from the Kumkol fields in Kazakhstan to Atasu and then on to China via a new pipeline. The relatively small volumes of Uzbek oil that will be available for export over the next 10-20 years will be insufficient to support the construction of a new export pipeline unless additional volumes are added from other countries in Central Asia, and the Omsk-Central Asia line does provide such an option. In this way, Uzbekistan may tie to the proposed new line from Atasu to China.

In 2001, Russia's Transneft floated the idea to use the Omsk-Chardzou crude oil line for exports of Russian oil to the Iranian port of Neka on the Caspian and using swaps to access Iranian ports on the Gulf for exports to Asian markets. At the time, Transneft's CEO Mr. Vainshtok said Transneft had finished testing a new export route for Russian crude to Iran, which would also involve oil producers from Kazakhstan, Uzbekistan and Turkmenistan. The oil will run through the existing pipeline from Omsk in Russia to Pavlodar and Chimkent in Kazakhstan, then through Uzbek territory to Chardzhou in Turkmenistan. "We finished the study of the whole route and found it was in satisfactory condition. We will need some technological changes on Uzbek's territory," Vainshtok said. He said crude from Chardzhou would be transported by railway to Neka in Iran and then loaded into the existing pipeline to Tehran.³⁰ In 2003, the idea was again discussed, this time mainly in the context of delivering Russian crude to the Seidi (Chardzou) refinery in Turkmenistan, which has been experiencing chronic shortage of crude oil. However, there seems to have been little practical follow-up on this idea.

Uzbekistan signed in 1996 a memorandum of understanding with Turkmenistan, Afghanistan, and Pakistan to build the Central Asia Oil Pipeline (CAOP), which, if constructed, would transport Central Asian oil via Afghanistan to a proposed new deepwater port at Gwadar on Pakistan's Arabian Sea coast. However, subsequent events have stalled any progress on the CAOP.³¹ In 1996, Unocal International Energy Ventures, Ltd., a Unocal subsidiary, Delta Oil Pipeline Company (Uzbekistan), Ltd., and Delta Oil Company (Uzbekistan), Ltd., units of Delta Oil Company of Saudi Arabia, signed agreements with the Republic of Uzbekistan for evaluation the country's potential crude oil and natural gas resources and determining the feasibility of utilizing part of Uzbekistan's pipeline network to tie into Unocal's then-proposed Central Asia Oil Pipeline (CAOP). The CAOP would have linked Central Asia oil producers to a new deepwater port on Pakistan's Arabian Sea coast.

The first agreement called for evaluating existing pipelines in Uzbekistan that could be used as part of the gathering system for the CAOP, estimating future Uzbekistan production levels from oil and condensate fields and determining potential export

³⁰ Energy Pipeline News, 24 September 2001 (web version).

³¹ Source: U.S. EIA/DOE.

volumes for the CAOP. A second agreement called for a joint study with Uzbekneftegaz of the potential of new oil and gas exploration areas in Uzbekistan. At the time, Unocal said the joint study could lead to negotiations for contracts related to oil and gas production in the country³², but since CAOP failed to materialize, the preliminary agreements and studies were inconclusive.

During the Soviet Union's occupation of Afghanistan, an oil product line was constructed from Uzbekistan to the Bagram air base near Kabul. The line was subsequently abandoned and partially dismantled.

IV.2.2.2. Natural Gas Pipelines, Transmission and Storage

The entire system of natural gas main pipelines, transmission, transit and storage is owned and operated by Uztransgaz, a division of UNG. Uztransgaz also sells gas directly to large consumers (wholesale customers) and the gas distribution company that services residential and commercial customers (see below the section on gas distribution).

The pipeline system is designed to serve both domestic and foreign destinations, as well as to transit Turkmen gas. The total length of main gas pipelines is 13.28 thousand km (recalculated as single string), consisting mostly of 1,000, 800, and 700 mm lines with maximum design operating pressure of 5.5 MPa. Larger diameter lines (1,200 mm and 1,400 mm) have a maximum design operating pressure of 7.5 MPa and are mostly part of the system serving export destinations (Central Asia-Center, Bukhara-Urals, and Gazli-Shymkent pipelines). These larger diameter systems are located in the north and northwest part of the country. There are altogether 24 compressor stations with 42 plants, equipped with some 250 compressor units of various design (turbine, reciprocating, etc.). In 2000, UNG's Uzneftegazmash Joint-Stock company (Chirchik) established a joint venture with Dresser-Rand (USA) to provide maintenance of compressors and pumps and manufacture spare parts.

Uztransgaz has ten sub-divisions that operate parts of the system, such as the Bukhara Gas Fields (BGF) - Tashkent, the Djarjak-Bukhara-Samarkand-Tashkent (DBST), the Mubarek-Kagan, the Shurtan-Mubarek, the Kelif-Mubarek, the Kelif-Dushanbe, etc., lines.

A distinctive feature of the gas transport system of Uzbekistan is that it has been designed to serve neighbouring states (Southern Kazakhstan, Kyrgyzstan, Tajikistan). Uzbekistan exports gas to these countries. In addition, Turkmenistan uses the gas transport system of Uzbekistan to export its gas.

In recent years, the gas pipeline system has delivered about 45-50 bcm to domestic consumers, some 5-6 Uzbek gas to foreign customers and 35-40 bcm of Turkmen gas in transit to foreign destinations.

Uztransgas also owns and operates the main gas pipelines that have been built as separate facilities capable for delivering low-sulfur gas (the Shurtan-Tashkent Thermal Power Station and the Mubarak-Navoi lines) to power generating plants and major industrial consumers in the country.

³² Source: Unocal press release, 4 November 1996.

Figure 3 illustrates the outlay of major pipelines in and around Uzbekistan.

Figure 3: Gas transportation system of Uzbekistan.



Source: Inogate.

International Markets

Since 2002, UNG has developed a special “strategic relationship” with Gazprom. The understanding is that Gazprom will arrange for and operate the system that transports across Uzbekistan Turkmen gas purchased by Gazprom (2 trillion cubic meters until 2028), whereby Gazprom will invest in the doubling of transit capacity (to 90 bcm/year) by 2007.

The UNG-Gazprom cooperation brings clear advantages to Gazprom, as it would be able to control the flow of Central Asian gas to foreign markets and secure gas supplies needed to continue supplying Russian and European customers without investing in frontier gas fields beyond the polar circle.³³ This agreement essentially assures that Gazprom will continue as the single most important foreign partner of UNG in gas exports, export pipelines and upstream gas projects until 2010 and beyond, with a market share in exports of Uzbek gas exceeding two-thirds.

In other developments, UNG has completed the construction of the second stage of the Gazli-Nukus trunk gas pipeline in the northwest of Uzbekistan, worth \$50 million, according to the company press service. The throughput capacity of the second stage of the 66-km 1,220-mm pipeline is 30 million cubic metres a day. Zeromax Group (U.S.) is the general contractor. The construction of the new line is part of the holding's strategy to boost natural gas exports in the northern direction. In particular, the two completed stages of the pipeline will boost gas exports to 7 bcm a year. The

³³ www.lenpravda.ru, 7 December 2004.

first, 350 km stage was commissioned in 1997 and is part of the Central Asia-Centre and Bukhara-Ural gas transportation systems.³⁴

Kazakhstan has promised not to lay an alternative gas pipeline avoiding Kyrgyzstan and finalise the foundation of a Kyrkazgaz joint venture, which will pump natural gas from Uzbekistan to Kazakhstan, Kyrgyzstan and Afghanistan. Kyrgyzstan is to contribute assets to Kyrkazgaz, while Kazakhstan is to invest in rehabilitating the pipeline, which is in a sorry state. Irked by unauthorised gas withdrawal from the 117 km-long major gas pipeline, which crosses Kyrgyzstan and connects Almaty in Kazakhstan with Uzbekistan, Kazakhstan had earlier threatened to lay an alternative pipeline avoiding Kyrgyzstan. The alternative route would have cost \$70 million. Kyrgyzstan had earlier postponed the foundation of the JV to manage the new pipeline, in which Gazprom has also shown interest, and denied concession for the aforementioned stretch of the major pipeline to Kazakhstan.³⁵

Gas storage

The country has three subsurface gas storages (SGS), with two of them having several horizons used for gas storage. These are Gazli SGS (Bukhara area), Northern Sokh SGS (Kokand area) and Khodjaabad SGS (Andijan area). They were created to regulate seasonal fluctuations of demand for gas. The active gas volume has lately been about 4.0 BCM. The storages have been operational as follows:

- Northern Sokh SGS (Formation II) since 1978;
- Northern Sokh SGS (Horizons XIV-XIVa-XV) since 1984;
- Gazli SGS since 1988;
- Khodjaabad SGS (Horizon XIX) since 1998;
- Khodjaabad SGS (Horizon XX-XXII) since 2000.

Daily extraction from such SGS's is as high as 37-38 million m³, which roughly equals 20-22% of the maximum daily production from Uzbekistani fields (160 million m³).

Following rehabilitation of the surface services at Gazli SGS and achievement of design parameters at Khodjaabad SGS (Horizons XIX and XX-XXII), daily extraction will reach 51-52 million m³ and the active gas volume in all Uzbekistani SGS's will total 5.2-5.3 BCM and, if an SGS to be constructed near Tashkent is counted in (Alimkent SGS), it will come to 5.7-5.8 BCM.

A further strategy in regard of the operating SGS's will involve maintaining the design performance at the present level and ensuring a capacity build-up to enable government and ongoing backups. The subsurface gas storages are owned and operated by Uztransgaz, a subdivision of Uzbekneftegaz.

³⁴ UZA, August 20, 2004. Quoted in FSU Oil and Gas Monitor, 25 August 2004, p. 23.

³⁵ VREMYA NOVOSTEI, September 28, 2004. Quoted in FSU Oil & Gas Monitor, 29 September 2004, p. 25.

IV.2.3. Oil Refining, Storage, Distribution

There are three oil refineries in Uzbekistan with a combined installed capacity of 220,000 b/d (about 11 million tons per year, tpy). The two older refineries are at Fergana and Alty-Aryk (both in the Fergana Valley) and the newest refinery is at Bukhara. All three refineries operate as a part of Uznefteprodukt.

The Fergana and Alty-Aryk were constructed in Soviet times and were designed to process a mix of West Siberian crude oil (delivered via a pipeline from Omsk in Russia across Kazakhstan) and domestic crude oils. Before the break-up of the Soviet Union, more than 75 % of the crude oil processed at the Fergana and Alty-Aryk refineries came from Western Siberia. After independence in 1991, locally produced crude started to be used at the country's refineries for the reason of import substitution. This fact meant that the refineries had to be modernised if they were to continue operations. Instead of modernising both refineries, the government decided to upgrade the Fergana plant, deemphasize the Alty-Aryk facility, and built a new refinery instead at Bukhara. The country's third refinery, situated near Bukhara, was constructed in 1995-97 and extensive upgrades were carried out at the Fergana refinery by 1999.

In particular, the Ferghana refinery's desulphurisation capacity has been increased to enable processing of low-grade, sour crude oil and condensate. The \$200 million upgrade project was carried out by Japan's Mitsui in 1998-2001. The project was financed by the European Bank for Reconstruction and Development (EBRD) and Japan's Export-Import Bank (JEXIM).

In addition, Texaco set up a joint venture in 1996, UzTexaco, at the refinery to produce and market Texaco-branded engine, transmission and hydraulic lubricants from local crude oil. Texaco has a 50.1 % stake in the joint venture, and Uznefteprodukt holds the remaining share. Under Texaco's arrangement with the Uzbek government, they are allowed to convert earning in soums into dollars, which was usually not permitted by Uzbekistan in its contracts with outsiders in that time.

The Fergana plant is the largest one, with an installed capacity of 5.5 million tpy, but despite the upgrades still produces a high cut fuel oil. The second largest is at Alty-Aryk, with installed capacity of 3.2 million tpy, is also of obsolete design. The Bukhara refinery, built at a cost of \$400 million, currently has a capacity of 50,000 b/d (about 2.5 million tpy), which is expected to be expanded to 100,000 b/d. The Bukhara refinery can process both crude oil and natural gas condensate, but operates mainly on gas condensate. Accordingly, it turns out primarily high-quality light cuts (gasoline, diesel fuel, jet fuel) that meet international standards.

Uzbek refineries operate at below capacity. The refined products are shipped via railroad and truck, mostly to domestic markets, with minor exports going to neighboring countries.³⁶ In recent years, throughput has held steady at around 7 to 7.5 million tpy.

Since 2003, imports of small quantities of crude began from PetroKakakhstan's (formerly Hurricane) fields at Kumkol. Oil is transported by pipeline to Shymkent in

³⁶ US DOE/EIA: An Energy Overview of the Republic of Uzbekistan 2003; Inogate; Pleines, Heiko: FSU Refineries: Uzbekistan's refineries. News Base, quoted in Alexander's Oil and Gas Connections, 16 May 2000.

Kazakhstan and then by railroad to Fergana. Sales to the Fergana refinery commenced in the first quarter of 2003. These sales were initially made via a trader but in July 2003 were converted to direct sales by PetroKazakhstan to UNG. Although Fergana is the nearest end consumer for PetroKazakhstan's production, it has a limited need for crude and therefore deliveries to this destination represent a relatively small percentage of PetroKazakhstan's total deliveries.³⁷

A historical summary of refined petroleum products output by fuel type in Uzbekistan is shown in Tables 7 and 8.

Table 7: Output of refined petroleum products in Uzbekistan, 1992-2000 (in thousands of b/d)

| Refined Product | Production Rate | | | | | | | | |
|---------------------------|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
| Motor Gasoline | 35 | 37 | 38 | 38 | 28 | 31 | 33 | 38 | 40 |
| Jet Fuel | 4 | 5 | 5 | 4 | 7 | 6 | 6 | 6 | 6 |
| Kerosene | 8 | 10 | 10 | 10 | 3 | 1 | 2 | 2 | 2 |
| Distillate Fuel Oil | 41 | 47 | 46 | 47 | 38 | 42 | 47 | 45 | 39 |
| Residual Fuel Oil | 33 | 37 | 36 | 38 | 42 | 38 | 35 | 34 | 33 |
| Liquefied Petroleum Gases | 3 | 5 | 0 | 0 | 1 | 7 | 1 | 1 | 1 |
| Lubricants | 10 | 8 | 8 | 8 | 5 | 4 | 4 | 0 | n/a |
| Other * | 10 | 12 | 9 | 17 | 20 | 16 | 20 | 20 | 25 |
| Total Output | 144 | 160 | 152 | 163 | 143 | 146 | 148 | 146 | 146 |
| Refinery Fuel and Loss | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |

* - Includes asphalt, coke, naphthas, paraffin wax, and petrochemical feedstocks.

Note: Production rates shown as "0" (underlined) actually mean "less than 500 b/d". For year 2000, "lubricants" included in "other" category components may not add to total due to rounding.

Source: US DOE/EIA.

Table 8: Oil product output in 2000-2005 (thousand tons)

| Product | Actual | | | | | Forecast |
|---------------------|--------|--------|--------|--------|--------|----------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Main product output | | | | | | |
| Motor gasoline | 1709.4 | 1578.5 | 1575.3 | 1412.2 | 1370.9 | 1506.6 |
| Diesel fuel | 1972 | 1785.6 | 1699.1 | 1512.7 | 1558 | 1635.7 |
| Aviation kerosene | 393.8 | 364 | 403.1 | 320.2 | 337.2 | 300 |
| Heating oil | 1671.7 | 1504 | 1573.7 | 1454.2 | 1156.1 | 1451.3 |
| Lube oils | 182.3 | 173.1 | 139.1 | 174.8 | 233.4 | 200 |
| Bitumen | 166.5 | 194.3 | 191 | 187.3 | 181.6 | 170 |

Source: UNG

Refined product distribution is carried out by Uznefteprodukt, and affiliate of UNG, and private companies. Uzbekistan's refined products distribution system is undergoing serious modernization. Currently gasoline is distributed through 25 distribution centres (depots), 32 subsidiaries and about 800 fuelling stations. Some 600 fuelling stations have been privatized, but depots are still owned primarily by Uznefteprodukt. Improving the distribution system for petroleum products is a priority of the Government of Uzbekistan.

³⁷ Source: PetroKazakhstan 2003 Report.

Uznefteprodukt operates 3 refineries, 25 depots, 32 subsidiaries and 107 gas stations. Storage capacity is around 1.15 million cubic meters, i.e. 60-70 days of current consumption at full charge.

Tables 9 and 10 list prices of refined products over 2000-2003.

Table 9: Refined oil products prices, 2000-2003.

| | 2001 | 2002 | | | 2003 | | |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|
| | 1-Jul | 1-Apr | 1-Aug | 1-Dec | 1-Feb | 1-Apr | 1-Jun |
| Oil products, wholesale | | | | | | | |
| Gasoline (A-72, A-76),\$/ton | 315.4 | 196.73 | 232.92 | 215.43 | 217.86 | 218.49 | 225.99 |
| Gasoline (A-92, A-93),\$/ton | 388.99 | 236.07 | 279.5 | 258.52 | 261.44 | 262.19 | 271.19 |
| Diesel fuel, \$/ton | 150.42 | 97.96 | 109.04 | 103.69 | 105.82 | 127.43 | 131.81 |
| Fuel oil (wholesale), \$/ton | 22.48 | 18.34 | 20.56 | 19.32 | 19.54 | 19.59 | 20.27 |
| Oil products, retail | | | | | | | |
| Gasoline (A-72, A-76), \$/l | 0.24 | 0.18 | 0.21 | 0.2 | 0.2 | 0.23 | 0.25 |
| Gasoline (A-92, A-93), \$/l | 0.29 | 0.22 | 0.26 | 0.24 | 0.24 | 0.27 | 0.29 |
| Diesel fuel, \$/l | 0.24 | 0.18 | 0.21 | 0.2 | 0.2 | 0.23 | 0.25 |

Source: Sharma et al.: *op. cit.*

Table 10: Uznefteprodukt oil product price changes in 2004

| Product | 2004 | | | | | |
|--|----------------------|-------|------------------|-------|----------------------|-------|
| | Effective February 3 | | Effective July 3 | | Effective December 1 | |
| | Soums | US \$ | Soums | US \$ | Soums | US \$ |
| Ex-Refinery prices per ton | | | | | | |
| Gasoline A-72, A-76 | 277200 | 281.0 | 277200 | 271.8 | 287200 | 272.9 |
| Gasoline AI-91, A-92, AI-93 | 313800 | 318.1 | 313800 | 307.6 | 325200 | 309.0 |
| Diesel fuel | 167700 | 170.0 | 167700 | 164.4 | 23100 | 219.5 |
| Fuel oil | 25100 | 25.4 | 30300 | 29.7 | 40200 | 38.2 |
| Oil product retail price per 1 litre (incl. consumption tax) | | | | | | |
| Gasoline A-72, A-76 | 305 | 0.31 | 310 | 0.30 | 320 | 0.30 |
| Gasoline AI-91, A-92, AI-93 | 350 | 0.35 | 355 | 0.35 | 365 | 0.35 |
| Diesel fuel | 305 | 0.31 | 310 | 0.30 | 320 | 0.30 |

The Uzbek government has decided to form a state inspectorate to control the use of petroleum products and gas in the republic. The new agency is to assume state energy saving programs and control the observance of laws in the oil and gas sector. The agency is to control gas transportation and sales and issue expert statements on the observance of technical requirements and the quality of products. Financial backing will come from obligatory payments by Uznefteprodukt, Uztransgaz and the

Mubarek gas processing enterprise. The agency's budget will also receive funds from economic sanctions imposed on law breakers.³⁸

Key investment projects (including privatization) in refining, petrochemicals and products distribution are listed in Attachment 2.

IV.2.4. Natural Gas Distribution and Utilization

Natural gas is distributed to large consumers (power plants, etc.) directly by Uztransgaz and to other consumers (residential, commercial) by the divisions of the Uzbek Agency “Uzkommunhizmat” (Uzbek Community Services, UCS). UCS was set up in late 2000 by Decree of the President of the Republic of Uzbekistan “On further reform of the management system of the community services” dated 19 December 2000, No. UP-2791, and Resolution of the Council of Ministers “on improving the set-up of the activities of the community services system” dated 21 December 2000, No. 493. The current statute of UCS was approved by Resolution of the Council of Ministers dated 5 March 2004, No. 110.

In mid-2003, the President of Uzbekistan established a special work group with the task to assess the activities of Boshkommungaz, UCS’s affiliate then responsible for gas distribution. The work group found substantial deficiencies at Bashkommungaz. Based on the findings, the Cabinet of Ministers of Uzbekistan issued on 2 October 2003 an edict dealing with the gas distribution sector. In particular, the document points out that the transition to market-based operations in the gas supply system has been extremely slow, non-payments rampant and unauthorized take-off of gas common. Low collection rates resulted in cross-debts. Billing was difficult due to absence of meters at consumers’ premises. Besides, Boshkommungaz established its own affiliates (Uztechgaz and Techgaz) responsible for the operation, maintenance and construction of new distribution nets, thus creating a multi-tier structure heavy on administrative positions.

In an attempt to deal with these problems, the Cabinet of Ministers abolished Boshkommungaz and its affiliate Uztechgaz and merged the supply arm of Boshkommungaz (Gaztaaminot), Techgaz and its regional branches into 14 separate gas distribution entities directly reporting to UCS, each operating within a certain territory. The distribution companies:

- Operate and service the gas distribution systems;
- Contract for deliveries of gas with Uztransgaz and resell gas to customers;
- Assure collection of pre-payment for deliveries of gas and collection on bills;
- Define technical conditions for hook-up to the system;
- Install metering devices, meter reading and assure the functionality of meters;
- Assure gas systems operational safety.

³⁸ GAZETA.KZ, September 22, 2004, quoted in FSU Oil & Gas Monitor, 29 September 2004, p. 23.

The documents specifically deals with the problems of improving collection rates, illegal connections to the gas grid, and disconnecting delinquent consumers and illegally connected off-takes. The edict created territorial collection inspectorates responsible for these tasks, as well as units within UCS overseeing the activity of the inspectorates. The edict introduced a 15% prepayment for gas deliveries for all customers except residential consumers, and the right to disconnect customers who have not carried out pre-payment for gas. To improve gas measurement, the edict directed the installation in 2004-2005 of tamper-evident seals on meters, as well as the installation of meters on the border points between the territorial gas distribution companies and at the gates to the nets servicing residential customers.

The edict also mandated the development of a standard method for the evaluation of losses and introduced administrative persecution for tampering with meters, illegal consumption, illegal connections to the grid, etc.

Limits for gas consumption for small consumers and private entities were abolished. However, the edict kept in place the system of cross-subsidies, government-mandated pricing and customer discrimination with regard to payment terms.

These measures will improve the financial status of gas companies. As of mid-2003, debts of consumers for gas supplies stood at 47.4 billion soums (2.5 times more than at the beginning of 2003), including of 1.4 billion soums of debt past due. A long-term goal of the measures is to help reduce domestic gas consumption from 37.2 billion cubic meters in 2003 to 32 billion cubic meters by 2010.

IV.2.5. Oil and Gas Exports and Imports

Uzbekistan is for the time being practically not exporting crude oil. Only minor quantities of crude oil are imported from Kazakhstan, while about 1 million tons per year is delivered to the Turkmen refinery at Seidi from the Kokdualak field, which straddles the border between the two countries. However, growing domestic demand and falling output at aging fields could necessitate more imports in the not-so-distant future. Various options have been discussed, in particular the re-opening of the crude oil pipeline from Omsk in Russia across Kazakhstan to Uzbekistan, and possibly on to Turkmenistan's Seidi refinery, or the participation of Uzbekistan in regional projects such as the CAPS pipeline. For example, UNG has announced plans to restart the Kazakhstan-Uzbekistan section of the crude oil line from Russia between the Shymkent refinery in Kazakhstan and Pakhta in Uzbekistan. The overhaul project would cost about \$8 million. The 140 km Shymkent-Pakhta section of the line would be able to pump about 2 million tons of oil annually. It could also carry petroleum products. UNG planned to launch the project in 2005.³⁹

Uzbekistan is also a marginal exporter of refined products, mostly to Tajikistan and Kyrgyzstan. In 2004, Tajikistan imported about 17,000 tons of petroleum products from Uzbekistan, almost all of them Diesel fuel.

In an attempt to improve refinery load factors and secure additional supplies of crude oil, UNG has entered into a tolling contract with US-registered Zeromax. Zeromax intends to supply 400,000 tons of crude to the Fergana Oil Refinery. Under the

³⁹ KAZINFORM, May 19, 2004. Quoted in FSU Oil and Gas Monitor, 26 May 2004, p. 23.

contract, crude is to be supplied primarily from Kazakhstan in the autumn of 2004 to March 2005. It will cost at least \$15 to process a ton of crude. The refinery will be exempt from excise import duties and Zeromax from customs and excise duties on petrol and fuel oil sold on the domestic market.⁴⁰

Uzbekistan is a net exporter of natural gas. Most of the exports, which run at about 15-20% of production (7-10 billion cubic meters per year), end up in the FSU. Uzbek gas is particularly important for Kyrgyzstan, Tajikistan and the southern regions of Kazakhstan, which do not have other suppliers. The government of Uzbekistan is interested in increasing exports of gas and is considering various options for this purpose.

Since 2002, UNG has developed a special strategic relationship with Gazprom, which culminated in the final approval by the Presidents of Uzbekistan and Russia on 6 December 2004 of the UNG-Gazprom agreement for strategic cooperation reached in 2002. The agreement foresees cooperation in various ways:

- The increase of exports of Uzbek gas to Russia from 5 bcm in 2003 to 10 bcm by 2010;
- The cooperation between UNG and Gazprom in the exploration and production of hydrocarbons on production sharing terms in the Ustuyrt plateau region;
- The transportation across Uzbekistan of Turkmen gas purchased by Gazprom (2 trillion cubic meters until 2028), whereby Gazprom will act as the operator of Turkmen gas transit in Uzbekistan and will invest in the doubling of transit capacity (to 90 bcm/year) by 2007;
- The possible sale to Gazprom as a strategic foreign investor of 44% of the shares of Uzbektransgaz.

In line with the strategic cooperation agreement with Gazprom, export contract arrangements have undergone several changes over the recent years. From 1997 until early 2001, UNG exported gas to northern destinations (South Kazakhstan, Russia, and the Ukraine) via the Switzerland-based Gaspex S.A. In early 2001, a consortium consisting of Itera, the Donbass Industrial Union, Debis (Germany) and Zeromax (U.S.) won a tender for the export of gas from Uzbekistan and the contract with Gaspex S.A. was discontinued. The export price was set at \$40/1000 cubic meters and payment was to be carried out in forex (50%) and in kind (by supplying goods and services – 50%). The consortium, led by Itera, intended to deliver the gas to the Ukraine. Supplies to other northern destinations had to be renegotiated with the national oil and gas companies of the relevant country.⁴¹

In 2003, Gazprom essentially took over from Itera, either directly or via the Hungarian-based Eural TG. Gazprom apparently aided Eural TG to wrest a share of the Polish market. In the summer, the gas monopoly issued a guarantee for a Vneshekonombank credit of \$227 million to Eural TG. The company used the credit to buy gas, which replaced Gazprom's supplies in Poland. Eural TG concluded a

⁴⁰ PORT.KZ, September 28, 2004, quoted in FSU Oil & Gas Monitor, 6 October 2004, p. 25.

⁴¹ Delovaya Nedelya, 11 September 2002.

contract with Poland's state company PGNiG for the supply of 2 billion cubic metres of gas by July 2004 and another 1 bcm by December 2006. Guarantees were provided by Naftohaz Ukrainy. Gas will be supplied from Uzbekistan and Kazakhstan at a price that is \$20-25 below the Gazprom price. The credit was used to buy gas in Uzbekistan and Kazakhstan.⁴² Eural had already begun negotiations on gas supplies to Azerbaijan and Armenia in 2004. Itera closed its representative office in Uzbekistan at the end of March 2004, when Itera's accreditation in Uzbekistan expired. The company does not have other projects in the republic.⁴³

In Kyrgyzstan, Kyrgyzneftegaz does not produce enough oil or gas to cover local demand. Most of its gas comes in from Uzbekistan and is distributed via Kyrgyzneftegaz's 600-km gas pipeline network.⁴⁴ Uzbekistan is also a gas supplier in Tajikistan.

In other developments, Ukraine intends to import 3 billion cubic metres of natural gas from Uzbekistan per annum. Significantly, barter would be excluded from trade, and money would be paid for Uzbekistani gas instead. In 2003, Naftohaz Ukrainy bought 2 bcm of Uzbekistani gas from Eastern Distribution, a gas trader.⁴⁵

The government of Uzbekistan is interested in boosting its natural gas exports to Europe. Several options are under consideration. Under one option, the existing major gas pipelines crossing Uzbekistan are to be renovated with the help of Gazprom, which became the operator of the entire Central Asia-Center gas pipeline system. An alternative is to export Uzbek gas by transit routes via Turkmenistan, Azerbaijan, Georgia, Ukraine, Turkey, Iran and the Caspian Sea.⁴⁶ However, this alternative may only become realistic if offtake could be secured beyond Turkey, and if the gas-producing countries along the proposed pipeline route (Turkmenistan, Azerbaijan, Iran) agree to let Uzbek gas in the pipe.

To the east, Uzbekistan could eventually participate in a project to export gas from Kazakhstan to China. Turkmenistan has said it could be interested, too.⁴⁷ China Daily noted that the pipeline from Kazakhstan, if it is indeed built, may eventually be extended so that it can carry gas from other Central Asian producer states. Gas from Uzbekistan and Turkmenistan will help PetroChina, the operator of the West-East pipeline commissioned in late 2004 in China, meet long-term demand for fuel if additional reserves are not found in the Tarim Basin. Kazakhstan and China began discussions on the gas pipeline proposal some years ago but have made little progress so far, largely as a result of concerns about the possible cost of the ambitious project.⁴⁸ Uzbekistan can only participate in the project if the other partners (particularly Kazakhstan and China) go ahead with it.

⁴² VEDOMOSTI, November 21, 2003. FSU Oil & Gas Monitor, 26 November 2003, p. 27.

⁴³ VEDOMOSTI, March 29, 2004. Quoted in FSU Oil & Gas Monitor, 31 March 2004, p. 25.

⁴⁴ FSU Oil & Gas Monitor, 14 April 2004, p. 11.

⁴⁵ KORRESPONDENT web site, June 26, 2004. Quoted in FSU Oil & Gas Monitor, 30 June 2004, p. 22.

⁴⁶ GAZETA.KZ, November 12, 2003, *ibid.*

⁴⁷ FSU Oil & Gas Monitor, 26 May 2004, p. 8.

⁴⁸ FSU Oil & Gas Monitor, 1 September 2004, p. 14.

IV.2.6. Oilfield Services (Drilling, G&G, etc.)

Chinese companies are a major foreign provider of upstream petroleum industry services and equipment in Uzbekistan, according to press reports. Little information is available on the scope of value of Chinese oil field service activity in Kazakhstan, but CNPC has revealed some details of its work in Uzbekistan. One of the company's subsidiaries signed an agreement with Uzbekistani state oil and gas company UNG in 1995. The deal calls for the Chinese company to provide drilling services for three production wells and two exploration wells.⁴⁹

China Petroleum Technology and Development Corporation (CPTDC), one of CNPC's wholly-owned daughter companies, is working in Uzbekistan under a \$69.7 million contract signed in 2001 for the modernisation of 10 drilling rigs belonging to Uzgeoburneftegazdobycha, the drilling unit of the national oil and gas company UNG, and is also pursuing projects in Kazakhstan. CPTDC describes itself as China's largest professional foreign trade company.⁵⁰ UNG plans to modernize 40 drilling rigs in the near future. As the service life of the bulk of the local drilling rig fleet has been exceeded by 100% to 150%, much has been done in the past two or three years to renovate the fleet and modernise the existing equipment. CPTDC is to finish modernising the ten Uzgeoburneftegazdobycha drilling rigs at a cost of \$69.7 million by the end of 2004.⁵¹ In 2002 China's Norinco Chemical Ltd. won a tender to supply two drilling units with at a total cost of about \$15 million.

Czech Eriell has started work on a well drilling project at two gas condensate deposits – Buzakhor and Eastern Buzakhor in the Kashka Darya region of Uzbekistan. Under a contract signed with UNG in July 2004, Eriell will sink 28 turnkey development wells 3,000-3,250 metres below the surface within the next forty-two months. Under contract terms, the Czech company is to use partially Uzbek drilling equipment, local specialists and organisations. The project is to be financed with a credit provided by Austria's Raiffeisenbank.⁵²

The Uzbek state tender commission has named Schlumberger a winner of a competition for an audit of hydrocarbon reserves at the Kokdumalak oil and gas condensate deposit (Kashkadarya region). This is only audit of reserves carried out according to international standards so far. The closed tender for foreign consulting companies was held in mid-2004 and involved Schlumberger and France's Beicip-Franlab. The Kokdumalak deposit was discovered in 1986, development started in the mid-1990s. According to UNG, the extractable reserves equal 55 million tons of oil, 67 million tons of gas condensate and 145 bcm of gas.⁵³

Other significant service contracts include:

- Shurtan-Sherabad natural gas pipeline;
- Eastern Berdakh-Bukhara-Ural pipeline, and the reconstruction of wells at Yangi-Karatepa oilfield;

⁴⁹ FSU Oil & Gas Monitor, 4 August 2004, p. 8.

⁵⁰ FSU Oil & Gas Monitor, 25 August 2004, p. 14.

⁵¹ GAZETA.KZ, September 13, 2004. Quoted in FSU Oil & Gas Monitor, 15 September 2004, p. 21.

⁵² UZA, September 13, 2004. Quoted in FSU Oil & Gas Monitor, 15 September 2004, p. 21.

⁵³ VREMYA NOVOSTEI, August 19, 2004. Quoted in FSU Oil & Gas Monitor, 25 August 2004, p. 20.

- SCADA Remote Controlling and Process Control System.

Details about these projects are provided in Attachment 2.

IV.3. Coal

Reserves

Explored coal reserves in Uzbekistan are largely concentrated in Angren (Tashkent Region), Baisun and Shargun (Surkhondaryo Region) Deposits and estimated at 1.9 billion tons. Of this amount, Angren lignite accounts for 1.85 billion tons while Baisun and Shargun mineral coal for the remaining 50 million tons.

Mining and consumption

All coal mining operations in Uzbekistan are concentrated in the Joint Stock Company “Ugol” which includes five producers. Three companies produce coal from the Angren Deposit using different mining methods: Angrensky Coal Pit is developed by open cast mining; Mine No. 9 employs the subsurface mining method and Podzemgaz Station uses the underground gasification method, producing over 2 BCM of gas from lignite. Two other companies extract mineral coal using the deep mine method. A briquetting factory has been constructed based on Shargunskaya Mine with a capacity of 200 thousand tons of briquettes per annum. Oil bitumen, a traditional binding agent for similar processes, is used as a briquette binder. In view of its high quality, Baisun coal may be used as a high-value chemical feedstock (briquette coke, adsorbents, liquid fuel, etc.). Coal output dropped for 6.5 million tons in 1990 to 2.5 million tons in 2000. More detailed information on coal mining and use is contained in Table 11.

Table 11: Coal mining and consumption in Uzbekistan

| | | 1992 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|-------------|------|------|------|------|------|------|------|------|------|
| Mining | mtoe | 1.66 | 1.03 | 1.05 | 0.91 | | | | |
| | mt | 4.66 | 2.95 | 2.96 | 2.5 | | | | |
| Consumption | mtoe | 2.18 | 1.03 | 1.02 | 0.88 | | | | |
| | mt | 6.26 | 2.95 | 2.87 | 2.42 | | | | |

Source: IEA 2002b.

By its Decree No. 196 of June 4, 2002, the Cabinet of Ministers approved a Programme for Coal Industry Development for 2002-2010. The Programme provides for the following:

- Stage-by-stage increments in coal output through the advancement of the open mining method at the Angren Deposit and bringing the share of coal in the fuel mix used for power generation to 15% in 2010;
- Upgrading, rehabilitation and retooling of coal mining companies;

- Retooling of Angrensky Open Pit in six consecutive phases between 2002 and 2010; increasing coal output from 2.1 million tons in 2001 to 7.85 million tons in 2010; reducing the cost of coal production from US \$10.47 in 2001 to US \$7.85 in 2010;
- Rehabilitation of Apartak Open Pit to increase coal output from 214 thousand tons in 2001 to 1.5 million tons in 2010, with a reduced cost of coal production from US \$10.47 in 2001 to US \$6.66;
- Increasing the share of coal in power generation from 4.7 in 2001 to 15% in 2010 through enhanced coal output from 2.7 million tons in 2001 to 9.4 million tons in 2010;
- Gradual conversion of five power units of the Novo-Angren State District Power Station to all-year-round coal firing; and
- Upgrading of the operating equipment intended for coal feeding and firing at the Angren Thermal Power Station.

IV.4. Electricity

IV.4.1. Power Sector Overview, Generation Capacity

The power sector of Uzbekistan is considered to be a cornerstone for the economic development of the republic. After gaining independence, Uzbekistan achieved self-sufficiency in power, overcoming in the process formidable challenges during the last decade.

Uzbekistan's power system is part of the United Central Asia Power System (CAPS, see below). The country is the largest power producer in Central Asia and a net exporter of electricity, channelled via the interconnected system of networks. Total installed generation capacity is 12,038 MW at 38 power plants, including 10 thermal power plants (TPP) with a total capacity of 10,619 MW and 28 hydroelectric power stations (HPP) with a total capacity of 1,4019MW. In addition, three departmental power stations with a total capacity of 319 MW are involved in power generation. There are no nuclear power plants in Uzbekistan. The republic is potentially capable of generating up to 50 billion kWh of electricity per year.

The total length of electricity lines is over 230,000 km. The power system is connected to the systems of the neighbouring countries, mostly by 500 kV and 220 kV lines.

Much of the equipment in the generation, transmission and distribution sub-sectors is outdated and extremely inefficient. At present it needs serious renovation and upgrade to meet the growing demand of electricity in the economy.

The facilities require rehabilitation by introducing more efficient and environment-friendly equipment, so that they can operate at their design capacities. There are

currently no manufacturing facilities in the country for the production of equipment used in power generation and transmission.⁵⁴

The growing demand for electricity and the wear and tear of the existing power generating facilities in the country has motivated the government to develop a long-term program for the reconstruction and development of the sector during 2001-2010. In December 2001, the Government of Uzbekistan approved a Generating Capacity Development and Rehabilitation Programme for the Energy Sector until 2010 envisaging an increase in the installed capacity of national power stations by 15% by 2010. A preliminary estimate indicates that the cost of Programme implementation will amount to US \$1.1 billion (at the exchange rate of 387.5 soums/US \$). It is assumed that the envisioned actions will help to save up to 850 million m³ of gas. This program should extend the service life of the existing power generating capacities. The changes in capacity of various power plants under the plan are shown below in Table 12.

Table 12: Planned Changes in Capacity in Uzbekistan's Power System

| Description | Capacity (MWs), 2001-2010 | | | | | |
|---|---------------------------|---------------|---------------|-------------|--------------|---------------|
| | Baseline 2000 | To Be Retired | New Additions | Upgrades | Year 2010 | Net Change |
| North-Western Power Unit | 700 | -100 | | +30 | 630 | -70 |
| <i>Tuyamuyun Hydroelectric Plant</i> | 100 | | | | 100 | |
| <i>Takhiatash Power Plant</i> | 600 | -100 | | +30 | 530 | -70 |
| Samarkand-Bukhara Power Unit | 900 | -220 | +1,252 | +100 | 2,032 | +1,132 |
| <i>Navoi Power Plant</i> | 850 | -220 | +346 | +100 | 1,076 | +226 |
| <i>Mubarek Cogeneration Plant</i> | 50 | | +106 | | 156 | +106 |
| <i>Tolimarjon Power Station</i> | | | +800 | | 800 | +800 |
| Tashkent Power Unit | 6,530 | -854 | +496 | +775 | 6,947 | +417 |
| <i>Tashkent Power Plant</i> | 1,730 | -652 | +376 | +70 | 1,524 | -206 |
| <i>Syrdarya Power Plant</i> | 2,180 | | +120 | +520 | 2,820 | +640 |
| <i>Novo-Angren Power Plant</i> | 1,500 | | | | 1,500 | |
| <i>Angren Power Plant</i> | 205 | -202 | | +185 | 188 | -17 |
| <i>various hydroelectric power plants</i> | 895 | | | | 895 | |
| <i>Tashkent Cogeneration Plant</i> | 20 | | | | 20 | |
| Fergana Power Unit | 250 | -100 | | | 150 | -100 |
| <i>Fergana Power Plant</i> | 150 | | | | 50 | |
| <i>Andijan Hydroelectric Plant</i> | 100 | -100 | | | 100 | -100 |
| TOTAL | 8,380 | -1,274 | +1,748 | +905 | 9,759 | +1,379 |

Source: U.S. Department of Commerce/BISNIS

The program also foresees the introduction of new generating capacities totalling 1,690 MW, transformer capacities of 2,429 MVA and the construction of 1,355 km of 220-500 kV power transmission lines. Substantial involvement of international consultants, contractors and equipment suppliers is needed for the implementation of these programs. The project would require large scale investment. Generally, in accordance with Uzbek legislation, the contractors or suppliers are selected through open tender process, usually preferring bidders who offer investments, loans or similar attractive financing sources for the relevant project.⁵⁵

⁵⁴ Jahongir Mavlany, Energy Sector of Uzbekistan, 2003. Document accessed at www.bisnis.doc.gov on 21.02.2004

⁵⁵ Jahongir Mavlany, Energy Sector of Uzbekistan, 2003.

According to the program, the first 800 MW power units at the Talimarjan State District Power Station of condensing type were commissioned in October 2004. The introduction of additional steam-gas turbine units at the Tashkent, Navoi and Mubarek stations is expected. The program's implementation would allow saving annually of 300,000 tons of conventional fuel.

On May 16, 2002 a loan agreement was entered into between JBIC and the Government of the Republic of Uzbekistan, under which the Government of Japan provided a soft loan amounting to ¥24,955 million to implement a Tashkent Thermal Power Plant rehabilitation project. The project will be implemented in 2004-2008. It provides for the construction of a 370 MW combined-cycle unit at Tashkent TPP.

The project is being implemented in accordance with Decree No. 157 of the Cabinet of Ministers Decree of the Republic of Uzbekistan dated May 13, 2002, *Measures Relating to the Use of the Yen-Denominated Soft Loan of the Government of Japan Provided for the Rehabilitation of Tashkent TPP*.

In renewable energy, the Uzbek Ministry of Agriculture and Water Resources plans to implement a program of small-size power facilities to introduce about 440 MW of additional capacity and 1.3 billion kW/hour of power output.

Reconstruction and further development of the power transmission networks is also one of the most important objectives of the energy sector improvement plans. Its implementation would reduce Uzbek dependence on neighbouring countries, and increase the efficiency, reliability and flexibility of the electric energy transmission networks.⁵⁶

For the purpose of enhancing power supply reliability of the power grid and reducing power losses in transmission, a project to construct a 500 kV high voltage power supply line between Syr Darya TPP and Sogdiana Substation will be implemented in 2005-2007. Pursuant to Decree No. 65 of the Cabinet of Ministers of the Republic of Uzbekistan dated February 10, 2004, *Measures to Develop Cooperation with the Islamic Development Bank*, the said project is included in the list of projects slated for joint implementation with the IDB. The Board of Executive Directors of the IDB approved a loan to fund the 500 kV power line construction project as an "instalments sale" and "leasing" to the amount of US \$25.1 million with a 15-year maturity including a three-year grace period. Financial agreements have been signed for the project. Preparations are currently underway to go ahead with implementation and a tender will be held to select an adviser for project oversight.

The goal of the project relating to the rehabilitation of main power transmission grids is to meet power requirements of the Central Asian Republics with a view to support the economic growth. As a special objective, the project will pursue the improvement and enhanced efficiency of the power transmission system and a better trade in electricity among such countries, as well as improved efficiency of the main power transmission grids through the rehabilitation of 500 kV substations, control, protection and monitoring systems and auxiliary equipment.

⁵⁶ Jahongir Mavlany, Energy Sector of Uzbekistan, 2001. Document accessed at www.bisnis.doc.gov on 21.02.2004

On October 26, 2004, the Cabinet of Ministers of the Republic of Uzbekistan adopted Decree No. 503, *Measures to Implement the Project Relating to the Rehabilitation of Main Power Transmission Grids*. Pursuant to the Decree, Uzbekenergo commenced the development of a feasibility study for the project. The total project costs will amount to US \$149.6 million. A Loan Agreement has been executed with the ADB for the provision of US \$70 million with a 25-year maturity including a 5-year grace period and a Project/Credit Agreement between Uzbekenergo and the ADB. Work to select an advisor for project oversight is now underway.

IV.4.2. Generation and Consumption

Uzbekistan produces about 48,000 GWH of electricity annually, almost all of it consumed domestically. Only about 1,000 GWH of electricity are exported to neighbouring countries such as Tajikistan and Kyrgyzstan. At present, load factor in Uzbekistan is about sixty percent of installed generating capacity. A historical summary of electricity generation and consumption in Uzbekistan is shown in Table 13.

Almost all (97-98%) of electric power is generated by the enterprises of the government-owned Uzbekenergo joint-stock company, with the remainder produced by the enterprises of the Ministry of Agriculture and Water Management (~2.5% of total) and generating units at the Almalyk Mining and Metallurgical Plant, which recorded output of 166 million KWh in 2003 (~0.3% of total). Electricity output at general-use thermal power plants amounts to about 85% of generation, while generation at general-use hydro power stations and smaller thermal provides the rest.

Table 13: Electricity Generation and Consumption in Uzbekistan, 1994-2003 (in billion kWh)

| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002* | 2003* |
|-----------------------------|------|------|------|------|------|------|------|------|-------|-------|
| Net Generation | 45.3 | 44.9 | 43.0 | 43.6 | 43.4 | 42.9 | 44.3 | 44.5 | 49.2 | 49.4 |
| <i>hydroelectric</i> | 7.1 | 6.1 | 6.5 | 5.7 | 5.7 | 5.6 | 5.8 | 5.2 | 7.2 | 7.6 |
| <i>conventional thermal</i> | 38.2 | 38.8 | 36.6 | 37.9 | 37.7 | 37.2 | 38.5 | 39.2 | 42.0 | 41.8 |
| Net Consumption | 43.7 | 40.5 | 44.0 | 41.5 | 41.6 | 41.9 | 43.0 | 47.1 | 48.4 | 48.9 |
| Imports | 2.5 | 12.9 | 7.0 | 12.4 | 6.2 | 6.0 | 6.5 | 9.7 | n/a | n/a |
| Exports | 0.9 | 14.2 | 3.0 | 11.5 | 5.0 | 4.0 | 4.7 | 4.0 | n/a | n/a |

* Updated information based on FSU power report. Generation components may not add to total due to rounding. Source: DOE/EIA

The gross hydro power potential of Uzbekistan's main rivers is largely concentrated in the following four regions: Chirik-Angren Basin (33% of the gross potential), the Fergana Valley (24%), South Western Uzbekistan (34.8%) and the Lower Amudarya (7.8%), totaling over 100 TWh. The technical potential is estimated at 21-27 TWh, a half of which falls on small hydro (up to 30 MWh). It is technically feasible to construct 250 power stations with an aggregate capacity of 5.8-11 GW on the Republic's rivers and reservoirs. To date, one third of this potential has been utilized. Thirty one hydro power stations with an installed capacity of 1.7 GW have been constructed on Uzbekistani rivers and reservoirs.

In recent years, electricity generation has been growing, albeit at varying rate (almost 3% in 2002, only about 0.2% in 2003). Pricing of electricity is a major issue in the country. Electricity tariffs in Uzbekistan have almost doubled in recent years as the

country's power sector struggles to break even and attract investment for necessary infrastructure development.

IV.4.3. Electricity Transmission and Distribution Infrastructure

The Uzbekistani power system is located in the central part of the United Central Asian Power System (CAPS) which includes the power systems of Kazakhstan, Kyrgyzstan and Tajikistan (the Turkmen system that has previously worked with the CAPS is now working with the Iranian Power System). Uzbekistan accounts for over 50% of electricity generated by the System. At the present time, the CAPS works in parallel with the UES of Russia through a number of single-chain high voltage power lines (VL-500 kV) connecting Southern and Northern Kazakhstan.

The existing VL-500 kV ring connecting the power systems of the Republic of Uzbekistan, the Republic of Kazakhstan and the Kyrgyz Republic ensures the balance of transmitted power from the busbars of Tashkent TPP (Uzbekistan) to Northern Kyrgyzstan (via Kazakhstan) and received power from the busbars of Toktogul HPP (Kyrgyzstan) to the Fergana Valley in Uzbekistan. In accordance with a mutual agreement reflected in a decision of the CAPS Council, no transit fees are charged for power flows between different energy system parts through the VL-500 kV ring (e.g. from Southern to Northern Kyrgyzstan). In all other events, a transit fee is charged in accordance with the existing Electricity Transit Fee Calculation Methodology for electricity transit from one country to another.

With a 126 MW generating source located in Northern Tajikistan (Karakum HPP), the Republic of Tajikistan consumes 650 MW covering the shortage with power flows from the 220 kV busbars of Syrdarya TPP in Uzbekistan to Northern Tajikistan. There is no interconnections between the generating sources in Northern and Southern Tajikistan.

Electricity consumption in the Surkhandarya Region of Uzbekistan, which is not directly connected to the main part of the Uzbekistani power system, is secured from the Regar Substation of the Tajik power system through swaps involving received power in Northern Tajikistan from the bus bars of the Syrdarya TPP.

The power system of Tajikistan experiences shortages in winter and surpluses in summer within the range of 1 to 1.5 kWh. Such winter shortages are covered with power flows from the Republic of Uzbekistan and other sources. Summertime hydro power surpluses are transmitted to Uzbekistan and other countries in the region.

Power swaps between Central Asian states are based on:

- Intergovernmental Agreements (either multilateral or bilateral) which deal primarily with irrigational issues and related energy matters). Such intergovernmental agreements provide for barter swaps of electricity and fuels, frequency/power regulation services and electricity transit. Under effective laws, such barter swaps are only permitted within the framework of intergovernmental agreements. Bilateral agreements are executed between business entities to effect power swaps as part of intergovernmental agreements.

- Contracts with agreed prices and hard currency payments

In emergencies, power swaps are made depending on the interconnected system regime. Non-contract flows must be returned before the end of the settlement period (month). If this does not happen, for the avoidance of customs problems between both parties, it is necessary to enter into an additional contract of sale for the unauthorized power flow involved. In principle, the problem may be resolved by means of an agreement on mutual assistance in emergencies but it is of little practical use because its text has not yet been finalized.

In the absence of power sale contracts between parties, there may be agreements between power systems on power or frequency flow regulation services and electricity transit.

Uzbekistan is also ready to transport electricity outside Central Asia, e.g. from Tajikistan to Russia via its network. Preventive maintenance of high-voltage lines and power stations has been completed to rule out any difficulties with the transportation of Tajikistani electricity via Uzbekistan. The United Dispatching Centre (ODTS Energia) of the United Energy System of Central Asia voiced doubts that the agreement on the supply of Tajikistani electricity to Russia may be implemented already in 2004. Because of the low water flow in Central Asian rivers in the first half of 2004, the water level in the reservoir of the Nurek hydro power plant in Tajikistan was low, which usually causes problems with water supply for the population and industry in Tajikistan. Under the contract between United Energy Systems (UES) and Tajikistan Elektroseti, Tajikistan was to export around 1.4 billion kWh of electricity to Russia in 2004.⁵⁷

IV.4.4. Privatisation and Restructuring in the Power Sector

IV.4.4.1. Sector Structure and Management, Pricing Policies

The power sector of Uzbekistan is owned by the government. It is a part of the so-called “fuel and energy complex” (FEC), to which the coal industry, the district heating systems and the distribution systems for certain other types of energy products (liquid fuels, etc.) also belong. The head of the FEC is the Deputy Prime Minister of Uzbekistan.

The structure of Uzbekistan’s power system is still a vertically integrated, government-owned monopoly, despite recent efforts in restructuring aiming at making it more market-oriented. The management relations between the system units and the overseeing government agencies are shown on Figure 3.

In February 2001 the Government of Uzbekistan issued a decree on partial privatization, demonopolization and deregulation of the power engineering and coal mining industries. The Ministry of Power and Power Supply that controlled electric power generation was transformed into Uzbekenergo State Joint-stock Company. It is an open-type joint stock company incorporating the JSC Ugol (Coal) as an independent legal entity. Major power stations and electric grids were also transformed into joint-stock companies, and partially offered to foreign investors.

⁵⁷ VREMYA NOVOSTEI, August 6, 2004. Quoted in FSU/CE Power report, 11 August 2004, p. 15.

However, Uzbekenergo still holds the controlling shares of those companies. The subsidiary enterprise Uzelectroset (Uzbekistan electricity grid) took charge of all high-voltage transmission lines (110-500 kV) used for transporting electricity within Uzbekenergo.

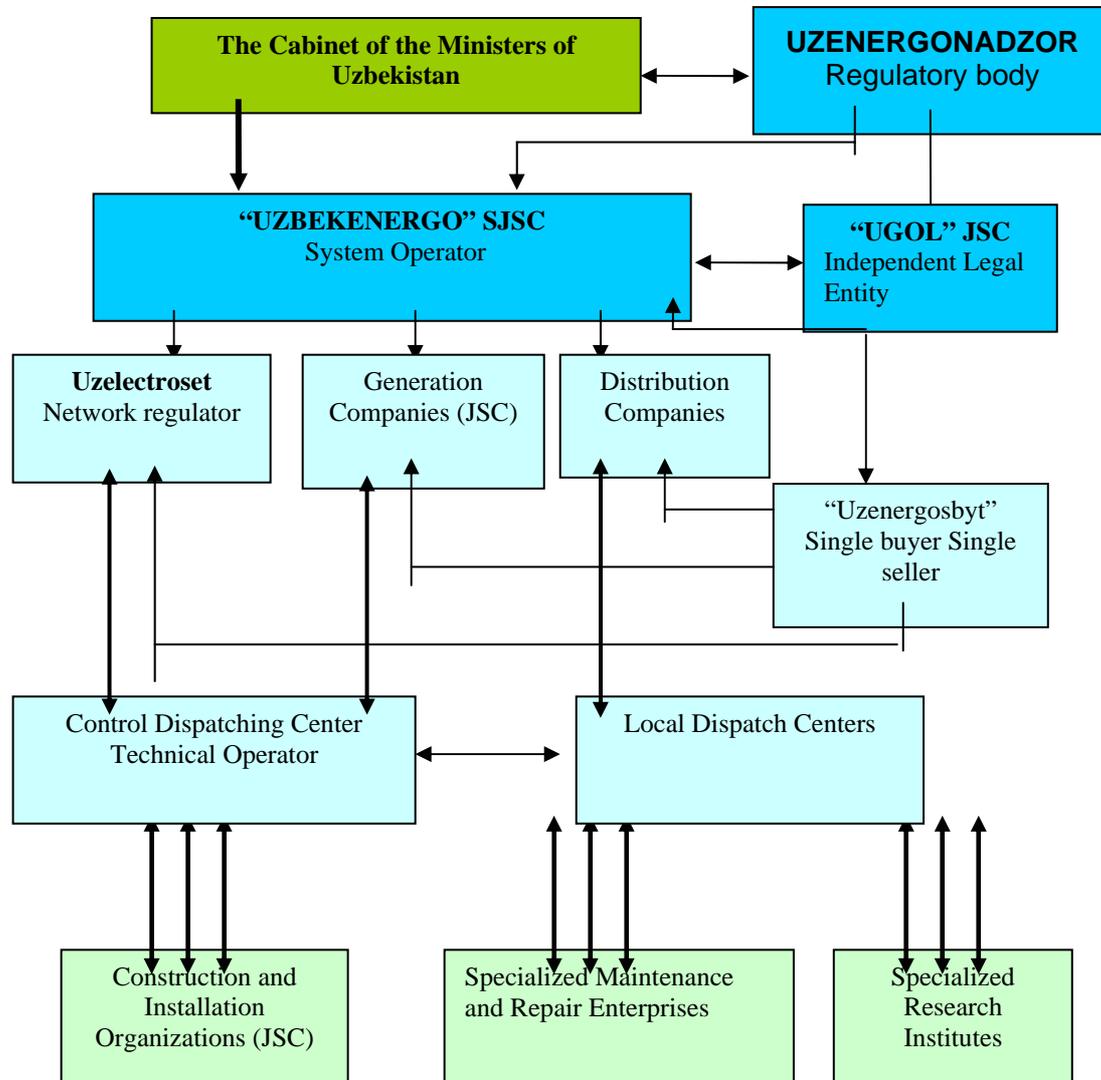
The main tasks of Uzbekenergo include power supply and dispatch, development program drafting, promotion of investment, R&D support in the coal and renewable energy sources industries, and the promotion of energy efficiency.⁵⁸

Price and tariff regulatory functions for the FEC are distributed among several state bodies. One such body is the Department of Price Settlement under the Ministry of Finance of the Republic of Uzbekistan that acts based on the Decree of the President of Uzbekistan N364 issued on 21 September 2000 and deals with economic regulation. The Department is, in fact, setting the tariffs for all forms of energy. Another one is UzEnergoNadzor, which is responsible for technical regulation in the electricity sector. The Ministry of Finance has price setting functions regarding electricity and energy products. These functions are further distributed to two subdivisions - one deals with all prices and tariffs for electricity and energy products for industry residential consumers, and the other deals with prices for coal and oil products for retail customers.

Uzbekenergo elaborates the draft electricity tariffs and submits them to the Ministry of Finance for approval. Draft tariffs developed by Uzbekenergo for electricity and heat take into account the annualized forecast costs in the power sector and the profits needed to assure the development of the sector. Depending on changes in the cost of power production, the tariffs can be revised and adjusted. All electricity end-users are differentiated by categories of tariff groups, depending on their activities, but irrespectively of the form of ownership.

⁵⁸ Justin Burke, Uzbekistan Daily Digest, 2001. Document accessed at www.eurasianet.org on 11.02.2004

Figure 4 Uzbekistan’s Power Industry Management Structure



Prices for electricity in all sectors are a fraction of the long-term marginal cost. The average weighted tariff introduced on 1 July 2003 was 1.26 US cents/ kWh, much lower than costs. At the beginning of 2002, the government, in accordance to the memorandum with the IMF dated 31 January 2002, started implementing a mid-term program for tariffs on electricity and energy products. According to the program, electricity prices should rise by 8% every 2 months. Average energy product prices should go up by about 50% every year. In the framework of this program, tariffs have been increased by more than 70% between April 2002 and June 2003. There was a similar increase in 2004 (July). Tariff changes are shown in Table 14.

Table 14: Household electricity tariffs.

| Price/kWh | Period (June-August) | | | | |
|---------------------|----------------------|------|------|-------|-------|
| | 2000 | 2001 | 2002 | 2003 | 2004 |
| Prices (\$US cents) | 0.88 | 0.76 | 0.83 | 1.30 | 2.08 |
| Prices (UZ Som) | 4.00 | 4.70 | 8.00 | 13.10 | 21.30 |

Source: Uzbekenergo

One of the greatest challenges that Uzbekistan faces in restructuring the power sector is the problem of cross-subsidies and direct government subsidies. Both subsidies and cross-subsidies lead to negative consequences, such as inefficiency, insolvency, etc.

The officially stated purpose of cross-subsidies is to keep the prices of electricity and other energy products low for consumers and businesses that cannot afford to pay the real price or enjoy special supply rights. As a result, the consumers and businesses that do not have such privileges pay a higher price for electricity, which results in higher cost of their products and often renders them uncompetitive. Eventually, such businesses fail or just stop paying the bills. In its turn, Uzbekenergo finds out that its cash flow does not cover the cost of fuel and other expenses. In the absence of bankruptcy procedures and enforcement, this leads to a situation where everyone owes to everyone else, with the only distinction being that some owe more than the others. In an environment like this, businesses cannot be properly run, as managerial decisions cannot be made on economic grounds.

A factor that compounds the problem of subsidies is the import substitution policy of Uzbekistan. For the purpose, production is encouraged of goods at factories that were directly or indirectly subsidized by the government at the expense of the power industry enterprises. To mitigate the problem, the government issued in August 2003 Order N341 that requires 30% prepayment for electricity a month ahead of delivery. Those who do not comply to this Order may be disconnected from the grid until they do comply, but there is an exception for residential consumers. Despite its shortcomings, the Order established for the first time the right of Uzbekenergo to do something about insolvent customers. Another area of subsidies is the one to the residential agricultural sectors, where the tariffs are much lower than they are supposed to be and the difference, in any manipulations, must be covered by government. The latter uses a lot of electricity for the irrigational purposes, mostly for the pumping systems.

There are different types of tariffs:

- Generation tariff, valid for power supplied by the power plants;
- Tariff for the transmission of power over the main line networks;
- Tariff for the transmission of electricity through distribution networks;
- Cross-border tariff.

The generation and transmission tariffs are set by the Ministry of Finance. The method of calculating generation tariffs takes into account the operational costs of the power plant, a margin to secure return on the investment, fuel costs and other technical costs. The method for setting the transmission tariff takes into account the “distance” costs, which lump up all transmission losses between generation and distribution points. The tariffs for electricity are differentiated depending on the type of the power plant (thermal, hydro) and range between 0.1-1.2 cents/kW, while for transmission the tariff is around 0.5 cents/kW. The method for setting distribution tariffs is very similar for that for transmission tariffs, but is weighed more towards commercial losses rather than technical losses. It is differentiated by customer type.

Cross-border tariffs are always set on the level of the two or more governments involved in the international transactions in power. The tariff can be set by negotiations, but is always equal or higher than the transmission tariff for domestic lines; it also depends on the nature of the entity that supplies and/or takes delivery of electricity and on the inlet/outlet points.

Within CAPS and the broader CIS networks, there are some special regulation fees for unscheduled power flows from one country to another, caused, for example, by unexpected surge in demand in a in neighbouring country. This issue is usually solved separately with help of one of the network operators.

IV.4.4.2. Sector Privatization and FDI

During the initial stage of reforms (the so-called "small privatization"), commercial entities, housing owned by the government, and small and medium enterprises (mainly in the services sector) were transferred to citizens. During the second stage (1995-1997), as a result of wide-scale privatization involving all branches of industry (except the basic ones) and agriculture, a solid foundation for the development of the private sector was created in the country.

Since 1998, privatization of industrial “giants” and subsidiary enterprises in the basic industries, such as the fuel and energy, chemicals, metallurgy and machine building industries is also underway, involving widespread attraction of foreign capital. Foreign investment is seen as a key factor in the privatization process in Uzbekistan. For the purpose of improving transparency for investors of the de-nationalization and privatization, foreign experts and financial advisors participate in the implementation of the privatization Program.

Organisation of privatization of the largest enterprises is carried out by the Bureau of Case-by-Case Privatization (CCPB) and is a three-step process: enterprise valuation, preparation of a privatization plan, and execution of the sale and purchase agreement. All three phases are carried out by the same investment bank, which receives the major part of its compensation from sales commissions. Investment banks are selected via an open tender procedure pursuant to the recommendations of the World Bank. The State Tender Commission (headed by the Prime-Minister) and the Interdepartmental Working Groups were set up by the Government of Uzbekistan for the purpose of resolving urgent issues arising during individual privatization and for the final selection of investors. Remuneration for services provided by foreign appraisal companies, auditors, consultants and financial agents is carried out by the State Property Committee by using proceeds of the World Bank Enterprise Institution

Building Loan, as well as general proceeds from state property privatization, with subsequent reimbursement of expenses by using proceeds from entities (shares) sales.⁵⁹

The Government of Uzbekistan considers privatization of the small companies in the energy sector as an additional source of funds required for the reconstruction of the industry. Uzbekenergo and its affiliated companies were included in the privatization program on February 2001, after certain preliminary restructuring.

The Uzbek government is trying to attract foreign and local private capital for the rehabilitation of national power industry. However, foreign direct investment (FDI) in this sector has been deterred due to the lack of transparency, overvaluation of assets, debts and currency exchange restrictions.

Uzbekenergo offers to foreign investors blocks of shares in joint stock companies amounting up to 48%.

Shares of electricity and heat generating joint stock companies will be sold through biddings by resolution of the State Tender Commission. Shares of electricity distribution and marketing joint stock companies will be sold through the Republic's Stock Exchange "Toshkent"

IV.4.5. International Trade and Transit in Electricity

During the summer of 2004, repairs were undertaken on the high voltage grids in Uzbekistan aiming at increasing energy flows capacity. Beginning in August 2004, Uzbekistan will transmit 1.4 billion kWh of electricity from Tajikistan to Russia. During the summer of 2004, Tajikistan supplied about 450 million kWh of power to Uzbekistan; in its turn, Uzbekistan is expected to supply 350 million kWh to Tajikistan between October 2004 and April 2005.⁶⁰

IV.5. Other Types of Energy (Wind, Biomass, Solar, Geothermal)

IV.5.1 Biomass and Waste

The Statistics Department of Uzbekistan makes no accounting of biomass or household waste which are largely used by rural residents for cooking and heating. The reserves of this primary energy type are estimated to be considerable – at least 2.65-2.95 toe (see below). At the present time, however, combustible renewable energy sources or waste are not considered by the government authorities for the purpose of fuel and energy balances and are not subject to statistical accounting. Wood, cotton stalks and waste are worth mentioning in the combustible renewable energy source and waste category.

Wood

Only a small part of Uzbekistan is covered by the woods. Haloxylon, juniper and thistle take up most of the woodland area. Given that the overwhelming majority of natural forests in Uzbekistan are sparsely grown and low productive, commercial

⁵⁹ Makhmudjon Akhmatovich Askarov, Privatization process in the Republic of Uzbekistan, Annual conference of the American - Uzbek Chamber of Commerce. Document accessed at <http://users.erols.com> on 24.02.2004

⁶⁰ Rusenergy.com, 22 July 2004, quoted in FSU/CE Power report, 28 July 2004.

felling in them is prohibited. Reforestation, sanitary and other non-commercial felling types are only permitted. In 1900-2000, 50-80,000 m³ of wood was felled. It may be assumed that the area of land taken by trees in urban and rural areas in the Republic equals the area of woodlands. Sanitary felling in such areas may produce another 50-80,000 m³ of wood. Therefore, annual wood output may be rated at 100-160,000 m³, or 30-40,000 toe.

Cotton stalks

Irrigated farming is the basis of the Republic's agriculture, with the majority of lands being used to grow cotton, cereals, rice and potatoes. The stalks and tops of such crops are used as fodder for farm animals and local fuel. One hectare of cotton is estimated to produce 2.3-7 tones of cotton stalks with a moisture content of 23-62%, which converts to 2-4 tons of dry stalks per hectare. The cotton stalk combustion heat is in the range of 18-18.8 MJ/kg which corresponds to 0.43-0.45 toe/t. Consequently, the caloric value of cotton stalks picked from one hectare is equivalent to 0.86-1.8 tons of oil, or 1.33 toe on the average. At the present time, cotton takes up about 1.5 million hectares of land in Uzbekistan. The energy potential of cotton stalks may total 2 million toe per annum – double the consumption of coal in the past years. Therefore, it is very important to arrange for accounting and use of biomass as fuel.

Waste

Nowadays Uzbekistan annually accumulates about 6.5 million tons of solid household waste (SHW), or about 1.1 m³ per resident with a density value of 0.58-0.68 t/m³. SHW largely includes paper, food scraps, wood, textiles, leather and rubber. Depending on the season, the SHW combustion heat ranges from 1,500 to 2,500 kJ/kg which is enough to keep the combustion process going. Therefore, it is possible to use SHW to generate heat and electricity and make construction materials. By an estimate, it is economic to use 2.2 million tons of domestic waste per annum as an alternative fuel in Uzbekistan. The anticipated effect of using domestic garbage is equivalent to the use of 0.33-0.55 million tons of oil. The City of Tashkent and large regional centres are very promising in this regard.

IV.5.2. Wind

Wind flows are seasonal in Uzbekistan. The average annual wind velocity in plain parts of the country ranges between 2 and 5 m per second. There are two regions in the western part of the Aral Sea in Karakalpakia and in the Tashkent Region with a higher wind velocity range of 5-6 m per second. The lack of meteorological stations with a modern data collection and registration system in the regions with good prospects for the wind power industry precludes an estimate of the technical potential in such regions. The gross potential of wind in Uzbekistan is estimated at 2.2 million toe. It is concentrated chiefly in Karakalpakia. The technical potential of wind is about 0.43 million toe.

IV.5.3 Geothermal

Geothermal waters are present virtually in all regions of the Republic. Their average temperature equals 45° C, with the warmer waters located in Bukhara (56° C) and

Syrdarya (50° C) Regions. The gross potential of geothermal waters in Uzbekistan is rated at 0.171 million toe and their technical potential is unknown.

IV.5.4. Solar

The geographic position of Uzbekistan predetermines the existence of a considerable solar potential. Sunshine duration equals 2,400-3,100 hours a year and the radiant flux stands at 6-6.7 GJ/m² per annum. The gross potential of solar energy is estimated at 51 billion toe and its technical potential at 177 million toe. The Republic has gained a considerable scientific and technological capability in the field of solar energy uses. The focal point of related R&D is the Academy of Sciences. The world's second magazine on solar engineering has been published in Uzbekistan since 1964, with its English version coming out as "Applied Solar Energy" that has also been printed since 1964 by Allerton Press, Inc. In the late 1980's, a solar furnace was built in the country with a capacitance rate of 1,000 kW and a focus temperature of 3,000° C. At the present time, solar energy is used mainly for hot water supply. There is no commercial manufacture of solar collectors. A small business called Uzgeliokurilish turns out small batches of flat solar water heaters under the auspices Fizika-Solntse, a research and production association of the Academy of Sciences. The total area of installed solar collectors in the country is estimated at 24,000 m². The existing solar potential is only marginally utilized in Uzbekistan. This is caused by low gas and electricity prices and the absence of a government renewables development programme.

IV.6. District Heating

At the present time, the main effort is focused on enhancing efficiency of heat generation through replacements of obsolete boiler equipment and reducing distribution losses by replacement of worn-out equipment in heat and water supply networks and general conversion to closed heat supply schemes and decentralized (local) heat supply. Such efforts are being pursued by virtue of Decree No. 61 of the Cabinet of Ministers dated February 11, 2005 and other regulatory documents. The Decree instructs Uzkommunkhizmat and Uzbekenergo, in cooperation with the Ministry of Economy, Ministry of Finance, Uzneftgazinspetsia, the Government Inspectorate "Sanoatkontekhnazorat", the Council of Ministers of the Republic of Karakalpakstan, and khokimiats of the Regions and the City of Tashkent, to develop as soon as possible a comprehensive programme to introduce energy saving technologies and submit it to the Cabinet of Ministers for approval.

Historically, the majority of community boilers have low efficiency because they were initially designed to be coal or fuel oil-fired and then converted to gas. As a result about 30% of gas energy is lost in the boiler itself. Work is currently underway to identify locations, owners, types and quantities of installed boilers, as well as their utilization parameters, separately for the boilers to be replaced with more efficient ones and for the businesses to be converted to a local heating system. Such identification is being pursued at the level of Region *khokimiats*.

An important aspect of such work includes determination of not only the estimated cost of boiler rehabilitation and the anticipated positive effect but also the funding sources and project implementation timeline. The effort is expected to result in about a 20-percent reduction of gas use for residential heating and hot water supply. At a

later stage, it is anticipated to achieve conversion to closed heat supply schemes, gradually getting rid of the existing open grids that both consume large amounts of water and energy and prevent making the heat supply compliant with the applicable standards and securing the required quality of service.

Another very significant element of Decree No. 61 is a programme to install residential gas meters. It is expected that 100-percent gas meter coverage will be achieved by September 1, 2005, of all gas-supplied apartments and single dwellings within the Uzkommunkhizmat (UKH) system which as of January 1, 2005 numbered 3,869,438 versus 3,305,848 meters installed. Therefore, the provision is made for installing 563,590 gas meters more by September 1, 2005 and achieving complete household gas metering in the Republic. Full gas meter coverage of larger gas consumers has virtually been achieved.

It is anticipated that in combination with gradual gas and heat price increases and improved collection of payments for gas, electricity and heat, such measures will help not only to enhance the energy efficiency community systems, but also to make them attractive for investors.

IV.7. Nuclear Power

Uzbekistan has no nuclear power stations.

IV.8. Current Challenges in Restructuring

To define strategies for the restructuring of the oil and gas sector, the Government of Uzbekistan conducted in 2004 an audit of UNG's performance in 2000-2002. Ernst & Young was selected as an auditor. According to UNG, the independent international auditor has been enlisted on the recommendation of the French BNP Paribas, the Uzbek government's financial consultant for the national oil and gas sector privatization project.⁶¹ The recommendations of the auditor were used to formulate plans to privatize UNG with the participation of a foreign investor. The company is currently undergoing restructuring under a scheme drafted by the international consortium led by France's BNP PARIBAS. Plans call for selling a 49% stake in UNG and stakes in its subsidiaries to a strategic investor.

In a separate project focusing on the legal framework, Britain's Ashurst won UNG's tender for an international consultant to study the legal base of Uzbekistan's oil and gas sector. Recommendations of the international consultant will form the basis for the regulation of the republic's normative and legislative base in the oil and gas complex.⁶²

The Uzbekistani state property committee may change the privatisation strategy of UNG, which groups together oil and gas enterprises. It is getting ready to prepare and conduct separate tenders for Uznefteprodukt, Uzneftegazmash and Uzgeoburneftegazdobycha (an UNG's subsidiary), as early as the end of 2004. Shares of UNG and its subsidiary Uztransgaz will be sold at the second stage. Earlier, it was planned to announce the sale of UNG and its subsidiaries at one tender. As expected, separate tenders may accelerate privatisation in the oil and gas complex. As reported,

⁶¹ UZA, December 3, 2003. FSU Oil & Gas Monitor, 10 December 2003, p. 24.

⁶² VREMYA NOVOSTEI, May 12, 2004. Quoted in FSU Oil & Gas Monitor, 19 May 2004, p. 23.

the state property committee now plans to sell 48.7% of UNG and 39-40% in its subsidiaries to a strategic foreign investor.⁶³

⁶³ UZA, August 5, 2004. Quoted in FSU Oil & Gas Monitor, 11 August 2004, p. 21.

ATTACHMENT 1

EXCEPTION OF UZBEKISTAN AS NOTIFIED IN THE “BLUE BOOK”

MEASURE

Land Code of 1 July 1998, Article 24 (“Land Acreage Rental”)

SECTOR

National Economy.

LEVEL OF GOVERNMENT

National.

DESCRIPTION

The lease of a land plot is a fixed-term, subject to remuneration, possession and use of land in accordance with the terms of a lease agreement.

A land lot is leased on a contractual basis:

- to citizens and legal persons of the Republic of Uzbekistan - by the district and city khokims;
- to associations and enterprises with foreign investments, international organizations, foreign legal and natural persons - by the Cabinet of Ministers of the Republic of Uzbekistan.

PHASE-OUT

No plans at present.

OTHER EXCEPTIONS

None.

ATTACHMENT 2

KEY INVESTMENT PROJECTS IN THE ENERGY SECTOR OF UZBEKISTAN

1. Petroleum industry projects

1.1. Upstream projects

1.1.1. Joint ventures

- In 1996, cooperation with Probady Sdn. Bhd. (Malaysia) resulted in the establishment of a joint venture (UzMaloil) for the development of the Karaktay field and possibly other depleted fields. The venture produces minor quantities of oil at Karaktay (about 30,000 tons per year).
- Uzbekistan is trying to get foreign investors to increase production at existing oil fields. A contract has been signed with Baker Hughes to increase production of the North Urtabulak field. Baker Hughes is investing \$8 million in this project and it is expected to increase production of the North Urtabulak field to over 6,000 barrels per day (some 30,000 tons per year). Baker Hughes is operating under a risk service format (providing for the company to receive a percentage of enhanced production) at the Northern Urtabulak oil field, and is apparently making use of an arrangement to refine the crude domestically (at Fergana) and export the products to neighboring Kazakhstan and Kyrgyzstan.⁶⁴
- China and Uzbekistan signed a document on energy cooperation during Chinese President Hu Jintao visit to Uzbekistan in mid-2004. The relevant departments of oil of the two countries made long-period research on bilateral energy cooperation and reached consensus that the two sides have great possibility and potential for energy cooperation⁶⁵. China National Petroleum Corporation (CNPC) is considering several joint projects with the national holding company UNG. The companies signed a framework agreement to develop mutually advantageous cooperation in Uzbekistan's oil and gas complex. The Uzbek company plans to utilize the Chinese company's experience in developing low producing deposits and drilling inclined wells in complex geological conditions. It is expected that project financing will be provided by Chinese credits.⁶⁶

⁶⁴ Hines, Jonathan et al.: Legal Regime For Hydrocarbon Development in Uzbekistan. Final Draft, August 11, 2001 (web version).

⁶⁵ People's Daily Online, 1 June 2004, quoted in Alexander's Oil and Gas Connections, 16 June 2004.

⁶⁶ Source: U.S. DOE-EIA; UZA, July 8, 2004, quoted in FSU Oil & Gas Monitor, 14 July 2004, p. 19; and Sharma et al: Uzbekistan Energy Sector: Issues, Analysis, and an Agenda for Reform. The World Bank, 2003, p 6 (Russian language version).

1.1.2. Production sharing agreements

LUKoil PSA

Soyuzneftegaz's acquisition is just the latest in a series of Russian deals. Both LUKoil and Gazprom have consolidated their positions in their Central Asian neighbour through PSAs in 2004. Gazprom has a stake in the Shakhpaty condensate field and is considering another PSA, while LUKoil recently sealed terms for the Kandym-Khauzak-Shady project.⁶⁷

A preliminary agreement had been reached in July 2001 on the Kandym-Khauzak-Shady project in the Bukhara-Khiva region of Southwestern Uzbekistan between LUKoil, the independent gas trader Itera and UNG, with LUKoil and Itera each holding 45% of the concession and UNG holding 10%. However, in 2003 Itera pulled out, leaving LUKoil with 70% and Uzbekistan with 30%. In mid-2004, UNG announced that the Russian company would take 90% of the PSA in a bid to encourage LUKoil to get the project moving. LUKoil and UNG signed a PSA on the Kandym-Khauzak-Shady project during President V. Putin's visit to Tashkent on June 16, 2004.

The PSA covers the deposits Kandym, Hauzak and Shady in the country's south-west and the conduct of exploration at the Kungrad section on the Ustyurt plateau in the west. The PSA term is 35 years. The project will be implemented by an investment consortium, which includes LUKoil Overseas (LUKoil's operator of international upstream projects, 90%), and UNG (10%). The consortium share in the production sharing is 50%. The PSA provides for an opportunity to increase the share of Uzbekistan up to 80% subject to an increase of the project profitability for LUKoil Overseas.

In-place reserves of natural gas in the contract territory are estimated at 283 bcm, and reserves of liquids are believed to be around 7 million tons of condensate. The estimated capital expenditure for the project is about \$1 billion, including around \$250 million in construction cost. First stage investment is assessed at \$200 million. The start of commercial production is planned for 2007. Annual gas production is expected to peak at approximately 9 billion cubic metres, while cumulative production under the project may reach 207 billion cubic metres. The project includes a gas processing and petrochemical production facility capable of handling 6 bcm per year, two compressor stations, a 200-km pipeline and other facilities. The project is expected to provide about \$1 billion in tax revenues for Uzbekistan.⁶⁸

LUKoil Uzbekistan Operating Ltd. was established by LUKoil Overseas to ensure the project management. In the future, LUKoil will also create a marketing company for joint distribution of products (including the share of the Uzbek side).

A Project Steering Committee was also established and holds regular meetings to approve a number of documents, including terms of reference for drafting the reservoir management plan for the Khauzak and Shady areas, work programme and

⁶⁷ FSU Oil & Gas Monitor, 21 July 2004, p. 10-11.

⁶⁸ NEFTEGAZOVAYA VERTIKAL, October 4, 2004, quoted in FSU Oil & Gas Monitor, 6 October 2004, p. 22. VREMYA NOVOSTEI, June 8, 2004, quoted in FSU Oil & Gas Monitor, 9 June 2004, p. 22.

budget for 2005 and some other documents.⁶⁹ In late November 2004, the PSA came into force with the signing of a protocol.

Gazprom PSAs

Gazprom and UNG concluded in 2002 an agreement on strategic co-operation in the gas sector, providing for Uzbekistani gas supplies until 2012 and joint natural gas extraction projects on product sharing agreement terms. Under the terms of the co-operation pact, Gazprom is to develop local fields and to import Uzbek natural gas during 2003-2012. Russia is expected to be importing some 10 billion cubic metres per year of Uzbek gas by 2005. During 2003, Gazprom imported 2.5 bcm and during 2004 the target was 7.7 bcm. Russia is paying \$40 per 1,000 cubic metres.

Gazprom has signed one PSA on the Shakhpakhty gas condensate deposit development project in the Ustyurt district, and is considering a second one for gas condensate deposits in the same region (Ustyurt in the Karakalpak Autonomous Republic) in 2005.⁷⁰

On April 14, 2004, Uzbekneftegaz and Zarubezhneftegaz signed a Production Sharing Agreement for additional exploration of the Shakhpakhty field. The PSA entered into force on July 31, 2004 and natural gas production from Shakhpakhty resumed on August 8, 2004. The total cost of the project is US \$21 million with a 15-year project life and aggregate gas production of 3.8 bcm. Production at Shakhpakhty was stopped in 2002. A statement released by Gazprom said that joint work on the Shakhpakhty deposit was a pilot Russian-Uzbek project and that both side were interested in continuing cooperation, especially in the Ustyurt oil and condensate fields.

Zarubezhneftegaz is also to assume responsibility for modernising the Uzbek portion of the Central Asia–Center natural gas pipeline, which is the only large export route for gas produce in Uzbekistan, Turkmenistan and Kazakhstan. The Soviet-era gas pipeline has a current capacity of only 47 bcm per year and is in dire need of refurbishment. A two-phase overhaul of the pipeline was scheduled to get under way in 2003. Phase one calls for an investment of \$100 million and a target capacity of 130-150 bcm per year. It will involve the reconstruction of sections of the pipelines and an upgrading of compressor stations by the end of 2006. Phase two may include the construction of new gas pipeline, for which a feasibility study is under way.

In mid-2004, Gazprom began gas production at the Shakhpakhty deposit. On attaining rated capacity in 2006, the deposit will yield around 500 million cubic metres of gas per annum. The entire production will be transported to the republic's northern border for export by trunk gas pipelines. By the middle of 2005, Zarubezhneftegaz had invested some US \$10 million in the Shakhpakhty field.

Russia's President Vladimir Putin has said that Gazprom intends to invest \$1 billion into Uzbekistan. Apart from the PSAs, Gazprom has said it will invest into improving the gas transport system of Uzbekistan. Together the LUKoil and Gazprom intend to invest a total of \$2.5 billion in Uzbekistan.

⁶⁹ UzReport.com, accessed on 24 November 2004.

⁷⁰ VREMYA NOVOSTEI, April 14, 2004, quoted in FSU Oil & Gas Monitor, 21 April 2004, p. 26.

1.1.3 Non-PSA, non-joint venture upstream gas-related foreign investments

Associated gas utilization at the Kokdumalak Field

The intent of the project is to reduce CO₂ emissions, generate additional quantities of propane/butane mix and light gasoline fraction. Boosting gas condensate production to 31,000 tons per year and LNG output to 100,000 tons per year, as well as the production of dry gas. Foreign investment to be attracted totals some US \$31 million.

1.2. Downstream projects

1.2.1. Oil and gas pipelines, gas storage

Shurtan-Sherabad Natural Gas Pipeline

On March 3rd, 2003, Uzbekistan's Cabinet of Ministers officially approved Zeromax as prime contractor for the construction of the Shurtan-Sherabad natural gas pipeline. This 720-mm diameter, 193-km long pipeline runs from the Shurtan Gas and Chemical Complex to the main transmission line of the Kelif-Dushanbe pipeline.

The open joint stock companies of Uzbekneftegaz were the key contractors for the Shurtan-Sherabad gas pipeline construction. Yuggazstroy, Tashneftegazstroy, Mubareneftegazmontazh and Bukharagazpromstroy constructed 193 km of the 720-mm gas pipeline. Such companies installed gas pipeline coating and cathodic protection.

Tashneftegazstroy and Mubareneftegazmontazh pipe-welding sites were deployed in Shurtan and a Yuggazstroy pipe-welding site in Guzar.

Zeromax supplied pipeline products, insulating tape and other required materials and equipment and also engaged earth-moving equipment from Czech companies.

The decision to build Shurtan-Sherabad was based on the need to further develop and modernize the natural gas pipeline infrastructure within Uzbekistan for the provision of public services. Shurtan-Sherabad provides a consistent and reliable supply of natural gas that now reaches the southern regions of Kashkadarya and Surkhandarya, which had been previously without natural gas supply lines.

Based on Zeromax Group, Inc.'s successful track record in gas pipeline development and construction an additional decision by the Uzbek government was made that approved the Zeromax - Industrial Association of Dombas (IAD) Consortium for the delivery of equipment and technical materiel and other forms of technical services for the construction of the gas pipeline section, covering 87-km of inaccessible, hard-to-reach, mountainous terrain at altitude's ranging from 1200 to 1570 meters.

With a target construction time frame for project completion and handover of 22 months, Zeromax completed the project in just under 8-months, during which time Zeromax delivered material and other technical resources worth a combined \$39.7 million, and included 36 thousand tons of rolled tube, 161 sets of ball valves, 390 sets of insulation tape, 50 thousand grinding discs, 60 tons of welding flux, 250 boxes/sets of roentgen tape, and 50 tons of welding wire.

During the Shurtan Sherabad construction phase, Zeromax successfully established relationships with strategic international partners to ensure quality, performance, and most importantly, on-time and on-budget performance. Zeromax created partnership agreements with Czech firms including the specialist company Plynostav Pardubice, in addition to sourcing special heavy equipment from leading world manufacturers such as Caterpillar, Komatsu and Liebherr.

During the construction phase, storage racks in Shurtan and Guzar were maintained for the semiautomatic welding of gas pipeline sections. The welded segments were transported by pipe-carriers to various sites along the pipeline route for final installation that included procedures such as radiographic control of welding joints, insulation of joints with sealing tape, trenching and final installation of monitoring equipment.

The first operational test of the completed pipeline was conducted on September 9th, 2003. The ceremonial flare that ignited the first movement of gas through the pipeline with a working pressure of 50 kg/cm² was successful.

Eastern Berdakh-Bukhara-Ural Pipeline & the Yangi Karatepa Oilfield Well Reconstruction

After the completion of the Shurtan-Sherabad, the Uzbek Government has approved follow-on contracts for work in the form of additional state-sponsored projects. This includes construction of the 60-km Eastern Berdakh-Bukhara-Ural pipeline, and the reconstruction of Well #2 of Yangi-Karatepa oilfield. These important projects are part of the continuing development and rehabilitation of the upstream oil and gas infrastructure of Uzbekistan that are designed to facilitate exports as well as increased domestic supply of both refined crude oil products and natural gas. With the successful completion of these projects, the total export potential of the Republic of Uzbekistan can be potentially increased by 1.5 billion cubic meters of natural gas annually.

SCADA Remote Controlling and Process Control System

At the service of JSC Uztransgaz, since the signing of the contract August 5th, 2003, the SCADA project is designed to ensure failsafe remote control and management of all major natural gas pipeline's within Uzbekistan through efficiently managing the automated information to monitor the operational status of the pipelines. Pipe pressure; temperature; flow rate; and status control for the cathode protection stations are all key components in the remote controlling and process controlling equation of the SCADA system. One of the most important functions of the SCADA system is the provision of real time emergency alerts on operating conditions and to send immediate control commands, within a fraction of a second, to the potentially malfunctioning valve. In addition, the SCADA system provides the monitoring and maintenance crews with full mobile communications technology and capacity.

One of the primary requirements of the SCADA system is the installation of hi-tech fiber-optic cable to run parallel with the pipeline covering large areas mountainous terrain and hard to reach locations at elevations of up to 1570 meters above sea level. Work is currently underway for the installation of this fiber optic cable in addition to the construction of regeneration units, aerial masts and necessary control facilities. Optic-Aloqa-Service, as subcontractor for this phase of the project, is assisting with

the installation of this cable. In addition, we have subcontracted COMPAX of Israel, for the manufacturing, supply and delivery of the remote control cabinets; radio communications equipment; 250 KM worth of fibre-optic cable; instrumentation equipment; in addition to other miscellaneous parts and services to facilitate the assembly of the system.

Specifically, together with our partners and subcontractors, Zeromax is responsible for the following tasks to ensure the SCADA system is successfully installed on-time and on-budget:

- Installation of 250 km long fibre-optic cable;
- Construction of 18 underground regeneration units;
- Supply and installation of communications and data transfer equipment;
- Construction of 11 aerial masts of up to 50 meters high to support installation of antennas for the mobile, ultra-short wave communications systems;
- Construction of control building nearby Shurtan Gas Chemical Complex.⁷¹

Expansion of the Gazli UGS

The project involves the construction of a Booster Compressor Station (BCS) at the Gazli Underground Gas Storage. The construction of the new BCS would allow natural gas extraction from Gazli UGS to reach 28-31 million cubic meters daily, as opposed to currently available 15-17 million cubic meters per day.

1.2.2. Refining, distribution

- Since 2001, privatization is on the agenda of Uznefteprodukt. The main thrust is to privatize up to 44% of the company by negotiating directly with a foreign strategic investor. This privatization effort is based on Decision of the Cabinet of Ministers No. 119 dated 9 March 2001 “On further measures on reducing state control and privatization of enterprises via attraction of foreign investors in 2001-2002”. For the purpose, a foreign consultant (BNP-Paribas) was appointed to carry out a diagnostic assessment of the company and evaluate the market. An interdepartmental group was set up by Decree of the Cabinet of Ministers No. 15/100-244 dated 31 January 2003 to consider the consultant’s report regarding the privatization of UNG, including the partial privatization of Uznefteprodukt.
- The second thrust in the privatization of Uznefteprodukt consists mainly in the sale of some 70 gas stations. By virtue of Annex 1 to Decree No. 97 of the Cabinet of Ministers dated 26 March 2002, 66 stations were slated for sale via the stock exchange and by other ways to domestic and foreign investors. The preparation for the sale and the sale itself were carried out by the State Property Committee of Uzbekistan. Additionally, a single gas station in Tashkent was earmarked for sale in 2002-2003 for cash via an auction.⁷²

⁷¹ Source: Zeromax Group (web site accessed on November 23, 2004).

⁷² Source: UNG web site.

- The availability of large quantities of liquids stripped from natural gas stream (condensate) enables the use of liquefied petroleum gas (propane-butane, LPG) as engine and household fuel. UNG has announced a tender with the aim of boosting the output of LPG at its subsidiary Shurtanneftegaz. As a result of a tender, the right to implement the project has been granted to Unico Oil of the UK. As a member of a consortium with Iranian State Company NPC and Frunze Research and Production Association (Sumy, Ukraine), this company is developing a feasibility study for the project. Shurtanneftegaz is one of the three gas treatment plants of UNG. Gas supplies to the plant are made from the Shurtan gas condensate deposit, a major deposit in Uzbekistan, under development since 1980. It produces annually around 15 billion cubic metres of gas, or 35% of the overall output in the Republic.⁷³
- In other products, St. Petersburg's Petromaruz is to commission a \$5.4 million petroleum bitumen facility in Dzharkurgan, Uzbekistan, at the end of 2004. The plant will be able to process 80,000 ton of crude oil a year into 60,000 ton of petroleum bitumen and byproducts. To implement the project, Petromaruz and Dzharkurganneft set up a joint venture, Dzharkurganneftepererabotka, with a \$150,000 equity fund. The Russian company owns 55% of the equity capital in the form of equipment and resources, the Uzbekistani company 45% in the form of plant and equipment. Up to 60% of oil will be delivered from deposits in the region. In 2005, a second stage will become operational to boost the daily capacity to 130,000 ton of crude oil.⁷⁴
- For the development of a joint production of industrial oil in 1997 on the basis of the Fergana Refinery with participation of "Texaco" company (USA), the "Uztexaco" Uzbek-American Joint Venture has been established. It increases its production of industrial oil of various types annually according to the world standards for export to mainly Central Asian countries.
- To increase production of high quality petroleum products, the Fergana Refinery has been rehabilitated in cooperation with "Mitsui" and "Toyo Engineering" (Japan), In 2000, in cooperation with "Dresser-Rand" (USA) , at "Uzneftegazmash" Joint-Stock company (Chirchik) the "UZ-DR Service Center" Joint Venture has been established, specializing in compressors and pumps maintenance as well as manufacturing of spare parts for them.
- Additional production at the Fergana Refinery through a joint venture with "Majoil Corporation" and "Kelm Corporation" (USA). The project provides for improvement of product quality.

2. Coal

- TTE International of the US has a contract with Uzbekugol, the monopoly coal supplier of Uzbekistan, to supply a Superior Highwall Miners coal-mining complex and auxiliary equipment worth a total of \$16 million. Under the contract, the complex, comprising a coal mining system with an annual

⁷³ UZA, March 26, 2004, quoted in FSU Oil & Gas Monitor, 31 March 2004, p. 25.

⁷⁴ UZA, August 5, 2004, quoted in FSU Oil & Gas Monitor, 11 August 2004, p. 22.

capacity of 1 million tons of coal, is to be used by the Angren opencast mine at Uzbekistan's largest lignite deposit.⁷⁵

- Russia's Alfa Group intends to take part in the Shargunugol (Surkhandarya region, Uzbekistan) privatization project, Uzbekugol general director, Alexander Klimenko, said. A 43% stake has been slated for sale to a foreign investor at a starting price of about \$0.5 million. A number of other foreign companies, including one more Russian company, have shown interest in Shargunugol in addition to Alfa Group.⁷⁶

3. Electricity

3.1. Generation

3.1.1 Rehabilitation of the Tashkent Thermal Power Plant

In 2002, the JBIC and the Government of the Republic of Uzbekistan signed an agreement which provided that the Government of Japan would provide a soft loan in the amount of ¥24,955 million with a 30-year repayment period for the implementation of the project.

A feasibility study for the Tashkent TPP Rehabilitation Project has been developed and approved. The design is for the construction of a combined-cycle plant (CCP) at the Tashkent TPP with completion in 2008.

A JICA appraisal team developed a detailed design and bid documents for general contractor selection.

An international consulting company has been selected on a tender basis for project oversight and a consulting services agreement has been entered into with JV JPOWER/CEPCO

Preparations for a tender are underway for general construction contractor selection and project equipment supplies.

3.1.2 Syrdarya Thermal Power Plant Rehabilitation (Phase II)

The company is rehabilitating the Syrdarya TPP which has 10 power units with a design unit capacity of 300 MW each.

The first rehabilitation phase is complete for Syrdarya TPP Power Units Nos. 7 and 8 funded with an EBRD loan amounting to US \$27.8 million.

The project envisages reconstruction of Syrdarya TPP Power Units No. 5 and No. 6 to be funded with IFI loans. The cost of the project will be determined upon completion of feasibility study development and approvals.

⁷⁵ UZA, October 19, 2004.

⁷⁶ VREMYA NOVOSTEI, October 26, 2004. FSU/CE Power Report, 27 October 2004, pp. 17-18.

3.1.3 Navoi Thermal Power Plant Rehabilitation

With an installed capacity of 1,250 MW, the Navoi TPP has two 210 MW power units, four 160 MW power units, six boilers and five turbines generating power and heat.

The design is for the construction of a 346 MW combined-cycle plant to be funded with foreign investment. The project feasibility study has been developed and made subject to an expert review by authorized agencies. In accordance with the feasibility study, the projects costs will come to US \$232 million.

In addition to the projects listed above, Uzbekenergo is to draw a \$50 million loan from the Japan Bank for International Co-operation (JBIC) to modernise the Mubarek TETs heat and power plant. Uzbekistan's government has endorsed the feasibility study worked out by the German Alstom. Necessary documents have already been transferred to JBIC. Estimated at \$103.2 million, the project calls for building two 55 MW gas turbine installations and supplying additional equipment and materials. Financial backing along with the JBIC credit will come from other overseas credits (\$45 million), as well as Uzbekenergo's own funds (\$8.2 milion).⁷⁷

3.2. Transmission

- Uzbekenergo is to build a \$44.4 million power transmission line to improve electricity supplies to the Bukhara and Samarkand regions. The project, which is to get underway this year, envisages the construction of a 114-km VL-500-kV line from the Syr Darya power plant to the Sogdiana substation. The project will be financed with a \$25.1 million credit from the Islamic Development Bank (IDB) and Uzbekenergo's own funds. The credit agreement is to be signed with the bank by the end of the first quarter of the year, according to officials from the firm. The credit is to have a 30-year maturity and a seven-year grace period, and carry 5% annual interest. Uzbekenergo officials also stated that the project will ensure uninterrupted electricity supply to consumers in both regions at a rate of 4.5 billion kWh per year while also reducing losses during electricity transmission.⁷⁸
- Given the need to bring on line a 500 kV outdoor switchgear at the Talimandjar TPP, enhance reliability of power supply to users in the south west region of the Republic, Uzbekenergo has plans to implement a project called "Construction of a 500 kV Power Supply Line between the Sogdiana Substation and the Talimadjar TPP with a 500 kV Outdoor Switchgear at the TPP". The project provides for the construction of a 216.5-km long 500 kV power supply line with tree line units installed. The tentative cost of the project per feasibility calculations is US \$85 million with a foreign investment requirement of US \$50 million.

⁷⁷ UZA, August 9, 2004.

⁷⁸ Ibid., 17 March 2004, p. 14.