

KAZENERGY INSIDE

02 MARCH-APRIL 2016



CURRENT ISSUE

- SCEP: Kazakh-US Energy Ministers Meeting
- National Energy Report
- PRMS
- Chevron-Sponsored Audio-book Application

2ND NATIONAL ENERGY REPORT PRESENTED TO US SECRETARY OF ENERGY ERNEST MONIZ

On April 6, the Kazakh-US Special Commission on Energy Partnership (SCEP) held its 11th plenary session. It was attended by the RK Minister of Energy Kanat Bozumbayev and the US Secretary of Energy Ernest Moniz. Kazakhstani side was represented by the heads of several national companies, research centers and KAZENERGY Association

The two sides exchanged views on a number of issues relating to non-proliferation and nuclear safety, energy efficiency and carbon sequestration. Mr. Moniz highly praised the consistent position of our country and President Nursultan Nazarbayev on non-proliferation and strengthening of the global nuclear safety.

Mr. Bozumbayev, in his turn, thanked Mr. Moniz for all the support in promo-

tion of nuclear safety and noted the important role the US played in the creation of the low-enriched uranium bank (LEUB) in our country. This project is aimed at developing peaceful nuclear energy, and its main objective is to ensure supply of nuclear fuel to IAEA member states.

The discussion agenda also included such issues as US companies' activity in our country's oil and gas sector, prospects for introduction of green energy, as well as possible participation of US companies in the international specialized exhibition EXPO-2017, which will focus on "Future Energy".

At the end of the meeting the sides signed "The Joint Statement of the Kazakh-US Energy Partnership Commission Co-Chairmen", emphasizing the significant progress achieved in

conversion of the WWR-K research reactor of the Institute of Nuclear Physics (INP) from highly enriched to low enriched uranium fuel and a number of other joint projects in the energy sector.

Then the US Secretary of Energy Ernest Moniz also met with the General Director of KAZENERGY Association Bolat Akchulakov. During the meeting, the 2nd National Energy Report was presented to Mr. Moniz, which specifies KAZENERGY Association's strategic view on the development prospects of our country's mining industry. This analytical publication was prepared with the direct participation of American experts and IHS Vice-Chairman, a Pulitzer Prize winner, Daniel Yergin. It is of interest not only to the Kazakh government and businesses, but particularly to foreign investors, who can assess the benefits and risks of investing in the fuel-energy complex of Kazakhstan.

NATIONAL ENERGY REPORT KAZENERGY



On April 5, 2016, a press conference devoted to the release of the 2nd National Energy Report was held

The event was attended by the Deputy Chairman of KAZENERGY Association Karabalin U.S., General Director of KAZENERGY Association Akchulakov B.U., Managing Director of Strategy and Sales of Samruk-Energy JSC Moldabayev K.T. and Senior researcher at Energy Insight IHS Berkov D.

Over the two years since the release of the 1st National Energy Report, the world has undergone some significant geopolitical and economic processes that have contributed to the collapse of world oil prices and, thus, to the reduction of investment in exploration and development. The demand for other forms of energy recourses is significantly reducing as well.

The second National Energy Report contains an analysis of the impact of major global economic trends on the situation in the Kazakhstan's sector and, particularly, opportunities for preserving and increasing the volume of Kazakh oil production. The report also studies the prospects for the coal industry, the current situation and prospects of demand for Kazakh uranium, feasibility of increasing electricity production and etc.

One of the major conclusions of the 2nd National Energy Report is prediction of an economic slowdown in Kazakhstan, taking into account the general situation on global markets and the natural character of the decline in GDP growth, which is observed in many countries as their economies reach maturity. At the same time, macroeconomic risks associated with high de-

pendence of GDP on oil sales and the "Dutch disease" are mitigated by a balanced policy of "sterilization" of revenue from the oil sector in the National Fund.

This is a difficult period for the energy industry and for the Kazakhstan's economy in general. There is currently an urgent need to adapt the country's oil and gas industry to new global challenges without serious consequences, to make timely, considered, targeted decisions that will preserve markets for Kazakh oil and leave oil product prices affordable to the country's consumers.

Speaking about the prospects of growth in electricity consumption, the NER authors note that it will be significantly lower than it was predicted before. According to forecasts, the average annual growth rate of final electricity consumption will be at around 1-1.2% in the period from 2015 to 2040. The volume of electricity production is estimated at 111 billion KWh in 2030, which is at least 34 billion KWh less than the baseline forecast for Kazakhstan.

The 2015 Report included a separate study of the energy sector development in China, which is the largest energy consumer and an important partner of Kazakhstan. China is expected to remain the largest market for energy resources. At the same time, Kazakhstan's capabilities for export of coal and electricity to China are still very limited. Uranium exports to China, which are currently 56%, can be reduced in the future, primarily due to the slowdown in accumulation of uranium stocks in China.

As for the oil products consumption in Kazakhstan, it is expected that it will slightly increase, and a production and consumption balance will be achieved with the modernization of refineries.

In the context of the global oil demand reduction, the report's authors predict steady gas production and consumption growth. It is expected that, with an increase in supply to the domestic market, natural gas will gradually replace coal in energy consumption.

The share of coal in the Kazakhstan's energy consumption balance is about 66%, but taking into account development of gas generation, nuclear energy and renewable

sources, it is expected to drop to 40% by 2040. In almost any global economic development scenario, Kazakhstan will remain one of the leaders in uranium production, which is thanks to the Kazatomprom management and application of environmentally friendly technology of drill hole in-situ leaching. The report also tells about the importance of building nuclear power plants as part of the country's transition to green economy.

In general, the presented 2nd National Energy Report is the most comprehensive study of the current status and prospects for development of the Kazakhstan's fuel and energy industry. It includes exclusive analytical and expert opinions of specialists, as well as a number of proposals for improvement of the Kazakhstan energy sector's investment attractiveness.

The National Energy Report 2015 was prepared by KAZENERGY Association with the support of the Association members and especially ExxonMobil Kazakhstan Inc. and Samruk-Energy JSC. One of the leading international consulting companies in the energy sector, IHSENERGY, took part in the NER preparation with the personal participation of the IHS Vice Chairman, Pulitzer Prize winner, Daniel Yergin.



KAZAKHSTAN & INTERNATIONAL RAW HYDROCARBONS RESERVES INVENTORY SYSTEM



How Kazakhstan will shift to international raw hydrocarbons reserves inventory system and which steps should be undertaken to introduce and approve the system taking into account the specifics of the republican activities in the field of geological exploration. These relevant issues have become the most important in the agenda of the special meeting held at KAZENERGY Association

The event was conducted under the chairmanship of Asset Magauov, Vice-Minister of Energy of RK, and Bolat Akchulakov, General Director of KAZENERGY, with participation of the representatives of the state bodies, national and international companies.

The issue of approval of the international raw hydrocarbons reserves inventory system in Kazakhstan is one of the priorities in the energy field. Potential investors are oriented at the accurate and reliable data on the reserves, accordingly, only the standards and methods recognized in the world. Currently, raw hydrocarbons re-

liquid, gaseous and solid hydrocarbons – Petroleum Resources Management System (PRMS), supported by the leading industrial organizations and used in the majority of countries, is being studied as an alternative. Thus, during the meeting, Kazakhstan and international inventory systems were analyzed. The current state of the industry and the necessary conditions to increase the investment attractiveness of the subsoil use sites were discussed. The rational development of fields and reaching oil recovery index within the current reserves inventory system, the role and obligations of the state



bodies on subsoil management (NRC, CCED etc.) was discussed taking into account the preparation of the new Subsoil Code.



ForexAW.com

serves classification, approved in 2005, is applied in Kazakhstan. Today, the System of managing resources and reserves of

The Committee of oil and gas industry of the Presidium of “Atameken” National Chamber of Entrepreneurs of RK

On April 06, 2016, regular meeting of the Committee of oil and gas industry of the Presidium of “Atameken” National Chamber of Entrepreneurs of RK (hereinafter – the Committee) was held under the chairmanship of Daniyar Abulgazin

The agenda included the issues on formation of United Tax and Customs Code, within which special attention should be paid to proposals of the state bodies about reforming the subsoil users taxation system., The members of the Committee provided recommendations on considering such proposals with oil and gas enterprises and companies with the aim to work out a single position and to discuss them with the The participants discussed current activity of KAZENERGY Association in the field of law making, particularly, introduction of changes and development of the draft Code “On subsoil and subsoil use”, draft law “On offset agreements”, environmental legislation. Considered the issues on ecology as well as educational activities, discussed the possibility to provide education at the expense of subsoil users and covered the achieved results. The Association jointly with its members pays great attention to providing education for the youth for further work in energy field. With the support of the leading industrial companies, educational grants for studying at specialized universities of the country (KBTU, KIMEP etc.) were allocated. It was noted that KAZENERGY experience in training at the expense of subsoil users is useful and it should be shared and developed. NCOC company representative, who attended the meeting, noted high efficiency of joint cooperation in these issues and expressed his desire to continue such work in future.



POCATOM

“Rosatom Central Asia” joined KAZENERGY Association

“Rosatom Central Asia” became the 80-th member of the Kazakhstan Association of Oil, Gas and Energy Sector Organizations “KAZENERGY”.

“Rosatom Central Asia” is a regional center of “Rosatom” State Corporation, which ensures promotion of products and services of Russian nuclear industry enterprises in Kazakhstan and the countries of Central Asia.

“Rosatom” enterprises are active participants of energy cluster of Kazakhstan. We welcome and support the intention of the State Corporation to contribute to the activity of KAZENERGY Association. Operation of world companies, among which is “Rosatom”, allows consolidating and applying international practices for development of the sector. We see our cooperation in such areas development of nuclear energy, development of electric power energy, renewable energy resources, oil and gas sector, development of science and innovations”, - said the General Director of KAZENERGY Association Mr. Bolat Akchulakov.

“On KAZENERGY platform, performing the role of integrator, “Rosatom” enterprises get new opportunities for their entry to the market of oil and gas and energy complex of Kazakhstan. In addition, addressing the needs of construction nuclear power facilities in Russia and abroad, Russian enterprises of nuclear power industrial complex possess wide professional skills in production of equipment for oil and gas industry and heat power engineering. In particular, enterprises of machine building division of Rosatom do not only produce equipment, but also perform modernization of boiler equipment at thermal power plants *that might be in great demand in Kazakhstan. We are interested in development of cooperation with the Association members, key world and regional players of energy market, through creation of joint ventures*, - commented the General Director of “Rosatom Central Asia” Mr. Sergey Gromov.

Background information:

A wide range of technological equipment for oil, gas and gas condensate processing, technological equipment for refinery plants. Oil and chemical equipment is manufactured for newly created production units and for reconstruction of existing facilities.

Main products of “Rosatom” State Corporation for thermal power stations are boilers (natural circulation, drum-type and supercritical once-through boilers) for energy units with capacity from 50 to 800 MW, created in consideration of advanced engineering solutions for operation on different types of fuel: fuel oil, gas, solid fuel (bituminous and xyloid coal, lignite). Enterprises of the State Corporation has produced about 700 boiler aggregates of different capacity and parameters for 152 domestic and foreign power stations of total capacity exceeding 66 million kW, including more than 16 million kW for export. The boilers operate at power stations in 20 countries of the world.

CLEAN USE OF FOSSIL FUEL - UN SEMINAR



As part of preparation for the UN ECE Ministerial Conference on sustainable energy under the International Specialized Exhibition EXPO 2017 and with the purpose of assisting the RoK Government to implement the Green Economy Strategy a two-day seminar entitled "Advanced technologies for fossil fuel use as a critical element of the Green Bridge Initiative" has begun. This seminar is organized by UN ECE with the UNDP and KAZENERGY Support. It is attended by RoK Energy Minister Bakytzhan Zhaksaliyev, representatives of other state authorities and agencies and largest energy companies and research institutes. In addition, this event is widely represented by international organizations (UNDP, EC ECE, US Energy Association, Clean Coal Center, IEA, World Coal Organization, GeneralElectric etc.).

Its goal is to look at the importance to develop environmentally and economically efficient technologies for coal use and production in Kazakhstan and study jointly with Kazakhstan partners the potential to realize RoK President N.A. Nazarbayev's Initiative to create an international center of green technologies and investment projects in Astana under the aegis of the UN. A special focus is the experience of foreign countries, namely, US and Japan.

Kazakhstan has invested much efforts in the area of sustainable energy development having created the relevant legal framework and adopted a number of strategic documents setting specific targets. However, some target indicators need to be revised considering the country specifics and current trends of the energy market development and economic efficiency, said KAZENERGY Executive Director Ramazan Zhampissov. In

addition, action plans to implement adopted concepts and programs do not always envisage specific steps to achieving the set targets leaving some of them in a declarative form.

Coal represents the basis of Kazakhstan's energy system with over 70% of electrical power being generated by coal and claiming more than 60% share in the consumption of primary energy resources in the country. In the nearest 20 years coal will continue to be an important resource. Therefore, development of clean coal technologies is of significance for our country.

Uneven increase in the share of renewable energy may reduce the efficiency of coal-fired plants and result in an excessive financial burden on the traditional energy, and, as a consequence, reduce investments in the upgrade of the main assets.



Currently, there is a significant number of programs and plans. However, there is no clear strategy for the development of the coal industry and generation sectors. All are aware of key issues of coal generation. They are equipment deterioration, low efficiency of the stations, use of high-ash coals and high air emissions of harmful substances, problem of storage of ash and slag waste etc. Hence, a comprehensive review of power plants is required with further adjustment of the state policy in Kazakhstan in the area of coal and electric power industries development, the KAZENERGY Report states.

To promote the sustainable energy development in the region and the Millennium Development Goals, the UN ECE jointly with KAZENERGY Association and with the support of the RoK Government Astana

EXPO 2017 will hold the Ministerial Conference on Sustainable Energy in the days of the International Specialized Exhibition EXPO 2017 "Future Energy".



KAZENERGY MEMBERS & PARTNERS NEWS

EXXONMOBIL APPOINTS NEW MANAGING DIRECTOR OF EXXONMOBIL KAZAKHSTAN INC.



In January 2016, Exxon Mobil Corporation, a leading international oil and gas major, announced the appointment of Mrs. Cheryl Gomez-Smith as Managing Director of its Kazakhstan affiliate, ExxonMobil Kazakhstan Inc. She succeeds Bruno Jardin, who has headed the affiliate since 2013.

Cheryl began her career with Exxon in 1990 as a Facilities Engineer in Texas

and has held various technical and leadership roles of increasing responsibility in the USA, Qatar, and Russia. She has continuous business involvement in Kazakhstan. The company owns a 25% interest in the Tengizchevroil joint venture, which operates the giant Tengiz field, 16.81% in the North Caspian Production Sharing Agreement that includes the world-class Kashagan field, and a 7.5% interest in the Caspian Pipeline Consortium. With volume of investment surpassing \$10 billion to date, ExxonMobil is committed to remain one of largest foreign investors in the Republic.

Cheryl was the Operations Manager for Exxon Neftegas Ltd, operator of the Sakhalin-1 project in Russia. In this role she was responsible for ExxonMobil's production operations business and engineering in the Russian Far East.

Cheryl is an American citizen and graduated from the University of Notre Dame (Indiana, USA) with a degree in Mechanical Engineering and from Tulane Univer-

sity (Louisiana, USA) with an MBA. ExxonMobil has more than 20 years of continuous business involvement in Kazakhstan. The company owns a 25% interest in the Tengizchevroil joint venture, which operates the giant Tengiz field, 16.81% in the North Caspian Production Sharing Agreement that includes the world-class Kashagan field, and a 7.5% interest in the Caspian Pipeline Consortium. With volume of investment surpassing \$10 billion to date, ExxonMobil is committed to remain one of largest foreign investors in the Republic.

CHEVRON-SPONSORED AUDIOBOOK APPLICATION



Chevron and Wikibilim Public Foundation presented its Audiokitap (translates as Audiobook) mobile application at the Nazarbayev Intellectual School in Almaty, Kazakhstan. The

application unique for Kazakhstan provides a convenient access to an online library of Kazakh language audiobooks.

Zhanbolat Ussenov, who represented Chevron at the ceremony said: "This innovative and technologically advanced project was sponsored by the company to handle multiple tasks, including preservation of Kazakhstan's cultural heritage, promotion of Kazakh language and introduction of modern information technologies to make literature and book-

reading more popular with the younger generation."

Alibek Kisybay, President of Wikibilim Foundation, added: "In the digital age, content adaptation to mobile technologies is of paramount importance. Kazakhstan is actively developing a culture of gaining knowledge through audio media. Audiokitap is a contribution to bridging the digital divide. Initiatives, like ours, will support the further development of Kazakhstan's cultural and educational environ-



ment”.

So far, Audiokitap’s ever-growing online library provides access to almost 2,000 audiobooks, including academic publications, fiction and foreign books translated into Kazakh. The audiobooks are split into four categories: national literature, foreign literature, kid’s literature and fairy tales.

More and more Kazakhs give preference to audio means of learning and exploring the world. Available through App Store and Play Market, the Audiokitap application has been downloaded 3,500 times in the very short span of time since its launch. The organizers expect this number to grow over 10,000 listeners soon.



Press & PR Office

KAZENERGY

Tel: +7(7172) 790181, 790173

shaira@kazenergy.com