Opening Speech
at the seminar "Environmentally Clean
Technologies for Mining and
Processing Coal, as well as Mining
and Utilizing Coalmine Methane"
(30.09.10 Astana, Transport Tower)

Dear Ambassador Norbert Jousten,

Dear representatives of the European Union and the Embassies of European countries in Kazakhstan,

Dear participants of the seminar,

On behalf of the Ministry of Industry and New Technologies of the Republic of Kazakhstan and personally let me welcome you at the seminar "Environmentally Clean Technologies for Mining and Processing Coal, as well as Mining and Utilizing Coalmine Methane" conducted within the framework of the European Union–the Republic of Kazakhstan cooperation in the energy sector.

It is comforting that our cooperation with the European Union covers the issues of the implementation of environmentally clean technologies for mining and processing coal that are topical nowadays.

Our Republic is now at the stage of transitioning to sustainable social and economic development. The President of the state Nazarbayev N.A. has set the objective for the country to become one of the top 50 most competitive countries in the world. We are striving to make the country's economy competitive. The ultimate impact on the country's economic growth and people's welfare will come from the pace of development and a sustainable functioning of the fuels-and-energy complex.

As you know, we have started implementing the State Program for the Accelerated Industrial and Innovation Development for 2010-2014. This Program envisages a further sustainable development of electrical power generation industry as one of the most important infrastructural branch of the country's economy.

Pursuant to the Action Plan of the Government of the Republic of Kazakhstan for the Implementation of the State Program for the Accelerated Industrial and Innovation

Development for 2010-2014, an Industry Program for the development of the electrical power generation industry for 2010-2014 has been worked out.

In accordance with the Program's target indicators, it is planned to increase the output of electrical power to 97.9 bln kW/h in 2014 whereas the volume of consumption is forecasted at 96.8 billion kW/h. The electrical power generation-consumption balance for 2010-2015 has been approved based on the targets set for the industry.

The Action Plan to implement the Industry Program includes 13 crucial projects to build new generating facilities, to expand and modernize the existing facilities, to develop the electrical grid installations.

The implementation of the projects envisioned by the Program will enable to provide for the growing needs of Kazakhstan's economy in electrical power and to enhance the reliability of electricity supplies for all consumer groups.

Another outcome of the implementation of the Industry Program must be a full provision of Kazakhstan's consumers by electrical power supplies generated by means of domestic energy sources. Thus, if today such share amounts only to 98%, by 2014 it must reach 100% as a result of the fulfilment of activities planned under the Program.

I would also like to briefly say about the industry-specific problems, recently adopted decisions, and their main outcomes:

The industry's main problems are:

- A high degree depreciation of the power-generating assets:
  - the equipment service life of the power stations' generating assets at ~83%;
  - the electrical power grid and, first of all, the distribution network at ~ 65%;
- The non-optimal composition of the power stations, including the lack of back-up generating capacities to regulate and cover for the peak loads;
- Outdated technologies for generating electrical power that are inefficient by contemporary measurements;
- The inadmissibly high level of greenhouse gas emissions to the atmosphere by the coal power stations;
- The insufficient use of renewable energy sources.

As of today, one of the problems is the ageing of the capital assets and the increased number of power-generating equipment that has reached the maximum level of operation time.

In fact, 20% of the core equipment has exceeded the maximum level of operation time (thousand hours) which results in the growing number of accidents and failures.

Due to the increasing acuteness of this problem, in 2009 a new pricing mechanism was introduced for power stations which provides for their differentiation into 13 price groups and establishing the cap tariffs for each price group as well as estimated and individual tariffs for the existing producers that are implementing investment programs and executing agreements with the power stations on the fulfilment of investment commitments.

As a result, more than KZT 65 billion was invested in the country's power stations only in 2009, without accounting for the funds allocated from the budgets. In the current year, it is planned to perform work within the framework of cap tariffs for the amount of about KZT 85 billion.

It is forecasted that during the period from 2009 to 2015 more than KZT 1 trillion and 140 billion will be invested under the investment agreements.

As a result of the new pricing mechanism, in 2009 the turbine generating units with the total capacity of 92 megawatt (MW) were commissioned, and this year it is planned to commission 98 MW. Reserves are being provided for commissioning of at least 455 MW in 2011 and 590 MW in 2012.

The total volume of the capacities to be commissioned in the framework of the investment commitments of the so-called cap tariffs of the existing power stations must exceed 3,700 MW, and accounting for the reserves and subsequent commissioning in 2016-2017 – 4,700 MW. These numbers are comparable with the best times of the electrical power generation industry when this industry was experiencing an accelerated development.

While distinguishing the above-specified positive developments, it is nevertheless necessary to note that the introduction of the new pricing mechanism based on the cap,

estimated and individual tariffs is a temporary measure, and after 2014 the market, as it was declared by the Government, must give rise to free (competitive) prices.

Along with this, the contemporary development of electrical power generation industry is linked not only to the rehabilitation and development of traditional generating assets, but also to the development of alternative energy sources, efficient energy use, energy-saving, environment-friendly solutions.

An ever-growing demand for energy resources and the environmental protection restrictions on the emissions of greenhouse gases that emerge when burning organic fuels make it necessary to develop new technologies.

The experience gained in the European Union countries with the coal burning technologies at electrical power stations that facilitate the reduction in the hazardous impact on the environment is very interesting for a young developing economy of Kazakhstan, especially for its energy sector which operates mainly on solid fuels.

And it is especially timely today. Accounting for the newly-introduced and reconstructed generating facilities, the coal-mining companies have set a target to increase the volume of coal mining during the following decade by more than 1.5 times, from 94.3 mln tons to 152 mln tons per year. About 50% of this volume will be burnt at Kazakhstan's electrical power stations.

To enhance the quality of coal produce, the coal-mining companies should work in the following main directions: modernization of operational facilities, introduction of new machinery and coal-mining technologies that would allow having a selective extraction of coal and rock layers.

Another direction – to reduce the ash-content and to enhance the quality of coal to be burnt at electrical power stations through the averaging of the delivered coal's quality and ensuring the optimal size of rock pieces.

The Republic's coal-mining enterprises should give special attention to the introduction of the quality and environment management systems in accordance with the ISO Standards, Series 9000 and 14000.

The introduction of clean coal technologies will have a favourable impact on the social factors:

- emissions to the environment will be minimized;
- the cost of the generated heat and electrical power will go down in multiplies;
- the living standards will improve.

I hope that the acquired knowledge of the practical application of the clean coal technologies in the countries of the European Union will facilitate the further strengthening of the cooperation between the leading European countries and Kazakhstan in the energy sector.

At present, after the President of the Republic of Kazakhstan Nazarbayev N.A. in its Address to the People of Kazakhstan "New Decade—New Economic Growth—New Opportunities for Kazakhstan" set the task to transform Kazakhstan in a country that is developing in accordance with the global economic trends, absorbs all new and advanced developments from all over the world, is capable to quickly adapt to new economic conditions, I am confident that today's seminar will be a significant highly effective event for representatives of the electrical power generation and coal industries which will yield some practical results.

And to conclude my speech, I would like to express my thanks to the European Union for the joint organization of this seminar which will undoubtedly be useful for all those who are present and wish a successful and fruitful work, the establishment of new mutually-beneficial relations to the seminar's participants and guests!