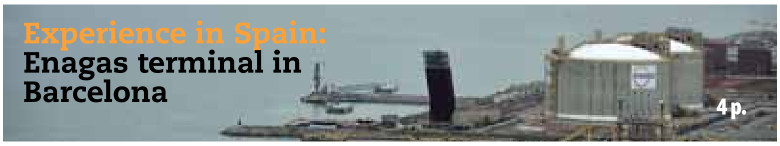
KLAIPĖDOS NAFTA
AKCINĖ BENDROVĖ

TERMINALAS

Liquefied natural gas Terminal News No. 1

Arvydas Sekmokas, the Minister of Energy, answers the questions of **Terminalas**

2 p.



Experience in Spain: Enagas terminal in Barcelona

4 p.

Selected an Adviser for the LNG terminal Project

On June 8, AB Klaipėdos Nafta selected an international company Fluor as a managing adviser for preparation and implementation of a liquefied natural gas (LNG) terminal project.

Rokas Masiulis, **the General Manager of Klaipėdos Nafta: "Klaipėdos Nafta is responsible for building and development of the terminal, and will make every effort to implement this project."** *Photo of Klaipėdos Nafta*

„This company was selected due to the best offered quality, optimal duration of works implementation and the price ratio - said Rokas Masiulis, the General Manager of AB Klaipėdos Nafta - We also assessed composition of the proposed expert team, their experience in managing such projects, in financial modelling of international projects and preparation of technical documentation, etc."

The advised is expected to work for 4 years, until the end of 2014, and will have to prepare a technical plan for the LNG terminal, assist in selection of technologies, carry out the works necessary for obtaining of mandatory permits, and solve the project security, navigation and other issues related to technical implementation of the project.

The adviser will prepare the business model and the financial model of the terminal, will develop the operational strategy of the terminal and will supervise technical implementation of the project.

The adviser will also have to answer the following questions: how long the terminal will be able to operate without major repairs or renovation, what service life the terminal will have, when its renewal will be required, etc.

The Contract is Being Agreed

The contract with Fluor is expected to be signed in June. If the contract with Fluor was not signed, the second candidate to advisors would be invited for negotiations. Five tenderers, whose tenders met all requirements, are on the list of candidates. Construction of a gas terminal is planned in Klaipeda. The terminal could be floating, of about 2 million m3 annual capacity; it's planned that the ship with gas in the tanks would be permanently positioned at the coast, and another ship carrying gas would approach it - the terminal could accept 2 ships per month. According to preliminary calculations, the value of the LNG terminal could reach 200–300 million Euro (690 million – 1 billion Litas). More than 100 LNG terminal operate in the world currently, 57 of them are located in Europe.

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Fluor was established back in 1912 as a construction company. It has been implementing liquefied natural gas projects for 50 years already. Fluor implemented LNG projects in Italy – Zeul, in Spain – Asturias, Cartagena, Huelva, etc. Fluor has earned an excellent reputation in the market through application of innovative methods and precision of design and construction works carried out.

Today the company is developing its activities in different industries. The network of Fluor's offices ale located in six continents in more than 25 countries, with about 42 000 employees.

Important dates

21 July 2010 – the Government of the Republic of Lithuania agreed to commencement of the liquefied natural gas terminal project preparation by AB Klaipėdos Nafta (KN).

03 November 2010 – the report prepared by the interdepartmental working group of the Ministry of Energy discussing and comparing possible locations for LNG terminal construction in Lithuania and discussing technologies of the terminal was presented.

31 December 2010 – KN announced a public international tender for selection of an adviser for preparation and implementation of the terminal project.

09 May 2011 – the Government established a special commission for speeding up implementation of the LNG terminal project. The Commission is headed by the Prime Minister, with the Minister of Energy, the Minister of Transport and Communications, the Minister of Agriculture, the General Manager of Klaipėdos Nafta, the Mayor of Klaipeda, the Director General of Klaipeda State Seaport Authority, the Prime Minister's Chancellor and two advisers, and Director of the National Land Service as the members.

11 May 2011 – KN signed a letter of intent with Cheniere, the USA power company, regarding the future supply of gas.

08 June 2011 – KN selected Fluor as the LNG terminal project adviser.

The following is planned:

3rd quarter of 2012 – ordering of a regasification (FSRU) ship

4th quarter of 2012 – commencement of the LNG terminal construction

End 2014 – start of the LNG terminal operation

Transformation of Gas Market

NERIJUS UDRĖNAS, **a senior adviser to President of the Republic of Lithuania**

President Dalia Grybauskaite's visit to Norway showed changes in energy resources traders' behaviour – an apparent activity increase in seeking buyers.

The global natural gas market experienced dramatic changes in the past few years – buyers rather than sellers are acquiring more bargaining power.

If we look at pricing, gas suppliers are becoming more flexible. What are the main factors that determined it? The economic crisis that reduced energy demand made suppliers of natural gas to reduce extraction costs.

Following the increase of shale gas extraction in the USA, the American gas market has become almost completely self-sustaining. Only 2% of natural gas used in the USA is imported.

This is why despite rising oil prices the price of gas on the USA market remains steadily low, about 2-3 times lower than the price at which Gazprom sells gas to Europe.

Europe is still highly dependent on natural gas transported through pipeline from Russia, Algeria and Norway. Long-term natural gas supply contracts in Europe are linked to oil prices, however, along with increasing expansion of liquefied gas supply infrastructure and network of gas pipelines such linking is loosing its grounds.

Asian countries, the Caspian region, particularly Azerbaijan, are actively seeking for the ways to open their vast natural gas deposits to solvent clients.

Development of swaps and other financial instruments allows increasing liquidity of gas market.

E.g., the buyer in Lithuania based on such financial instruments could buy gas from Azerbaijan, though actually he would receive gas from Norway. Particularly when Norwegian companies are active participants of Azerbaijan's gas market. Thus, due to expansion of gas pipeline networks, growth of the number of liquefied gas terminals, increasing use of shale gas, the price of gas will become completely unlinked from oil price, not only regionally but also globally.

The increase of natural gas reserves due to discovering of new conventional natural gas fields also provides optimism.

Furthermore, according to the latest estimates of the USA Energy Agency, even Lithuania may have trillions cubic metres of shale gas. The amount of such gas is several hundreds times higher in Poland . Probably, this is what allows Poland insisting on fair pricing from Gazprom.

The source: www.verslozinios.lt

Nerijus Udrėnas, a senior adviser to President of the Republic of Lithuania:

"Lithuania will also feel these changes in the market of natural gas, when the liquefied natural gas terminal, and later the gas connection with Poland are constructed".

Photo of Presidential Palace.

The Commission Has Been Established

To ensure a successful and expeditious implementation of the LNG terminal project, the Government established the commission for implementation of this project headed by the Prime Minister Andrius Kubilius, with the Minister of Energy, the Minister of Transport and Communications, the Minister of Agriculture, the General Manager of Klaipėdos Nafta, the Mayor of Klaipeda, the Director General of Klaipeda State Seaport Authority, the Prime Minister's Chancellor and two advisers, and Director of the National Land Service under the Ministry of Agriculture of the Republic of Lithuania as the members. On 8 June the decision was made to include in the commission the representative of Lietuvos Dujos, the Minister of Environment and the Mayor of Klaipeda District. *15 min., BNS*

Shale Gas after 10 Years

Industrial extraction of shale gas in Western Lithuania, that would allow reducing Lithuania's dependence o Russian gas for at least 30-50 years, could start in 10 years, if scientists' insights prove true. The value of resources can range from 24.5 to 73.6 billion Litas. Exploration could cost 615 million Litas to Lithuania. *Delfi.lt*

The Tender Announced

On 1 June, Klaipėdos Nafta announced the tender for preparation of the LNG terminal development plan and strategic assessment of environmental impact. The plan is a strategic document that will include the directions for development of the terminal, funding strategy, technical options will be assessed. This plan shall be prepared before commencement of territorial planning documents preparation. Bids are accepted until 13 June. *BNS*

President Urges

President Dalia Grybauskaite urged the Seimas to adopt the law on gas sector reform, implementing provisions of the third EU Energy Package. "I support and strive that the documents submitted to the Seimas by the Government were adopted as soon as possible," said Dalia Grybauskaite.*BNS*

Discussed Co-operation

Jean Abiteboul, the President for Supply and Marketing of the USA Company Cheniere visited Klaipėdos Nafta on 26 May and discussed gas supply issues with the management of the company. It was agreed to negotiate the methods and structure of liquefied gas supply, and, having achieved mutually beneficial solutions, to negotiate a long-term contract. Furthermore, Cheniere stated it would consider a possibility of investing into Klaipeda LNG terminal and becoming a minor shareholder holding about 10-20 percent of the terminal shares. According to Mr. Abiteboul, that would depend on the amount of gas supplied.

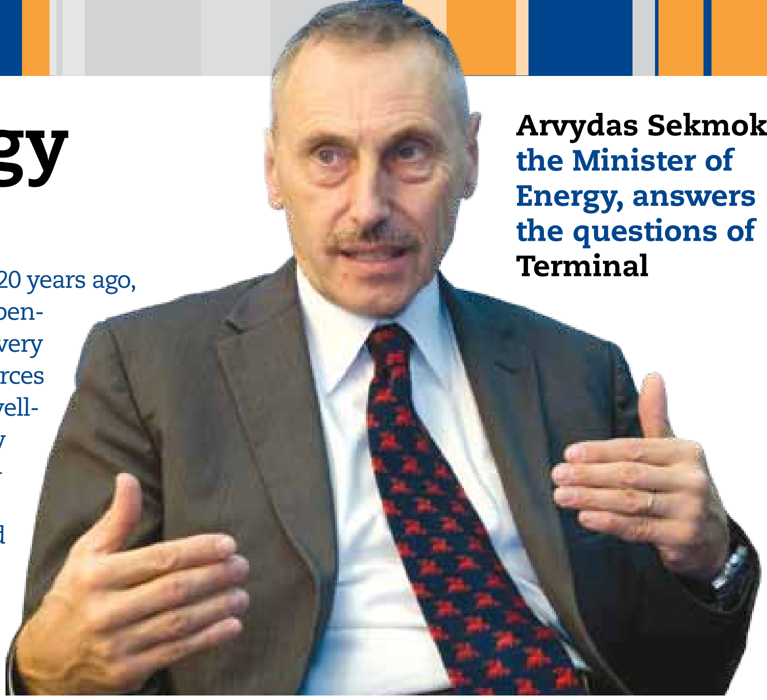
The Liquefied Gas Supply Is Being Discussed With 5-7 Potential Suppliers. *BNS*

Seimas Approved

On 23 May the Seimas approved the draft laws regulating the gas sector, which provide for splitting of natural gas transmission, supplying and distribution into separate activities, thus creating a competitive market.*Verslo Zinios*

The Way to Energy Independence

The State of Lithuania became politically independent 20 years ago, and during the next decade it shall ensure energy independence. By 2020, the country shall implement huge and very important projects to provide oneself with power resources necessary for security of the country and a long-term well-being. The National Energy Strategy sets out the priority works for each sector: in the sector of electrical power – electrical connections with Poland and Sweden, synchronisation with the networks of continental Europe and VNPP, in the heating sector – renovation and transition to a higher use of biomass – a renewable power source highly suitable for Lithuania, and in the gas sector – the liquefied natural gas terminal in Klaipeda.



Arvydas Sekmokas, the Minister of Energy, answers the questions of Terminal

The liquefied natural gas (LNG) terminal is one of the strategic national objects. What benefits will it bring to Lithuania and its people?
Lithuania is the most dependent on a single gas supplier country in Europe, the country does not have the gas reserve of the first necessity, we do not have a possibility to take part in the EU gas markets yet – for these reasons Lithuania is in the greatest threat of experiencing a gas crisis.
Furthermore, all of us, both business and population, feel that the price of natural gas is continuously growing.
With growing price of natural gas, costs of heating for Lithuanian people are increasing, therefore paying bills and maintaining residential housing is becoming increasingly difficult even for working people.
And the price of gas is increasing as we have to buy it from a single monopolistic gas supplier Gazprom, which is using the situation and dictating its conditions. Gazprom sells gas to Lithuania at the price by up to a third part higher than to those European countries, which have alternative gas supply channels, first of all, liquefied gas terminals. It's obvious that the only real instrument that would ensure decrease of gas prices and would eliminate dependence on a single supplier is occurrence of alternative sources of gas supply. It is therefore necessary to accelerate the construction of LNG import terminal. Another alternative, in addition to LNG terminal, would be shale gas, so we have to start as soon as possible exploring opportunities of gas extraction from the shale deposits in Western Lithuania, especially since it is one of the country's major strategic initiatives in the gas sector.
It is also essential to create a transparent and competitive gas market in the country, which requires further deployment of the EU's so-called third energy package.
As we know, the strategic projects in Lithuania - the liquefied natural gas terminal in Klaipeda, the underground natural gas storage, the gas pipeline Jurbarkas - Klaipeda, and gas connection Lithuania - Poland have been acknowledged having a European importance, and are included in the Plan for Development of the European Network of Transmission System Operators for Gas by 2020.

Who can supply gas through the LNG terminal?
Once we will have an opportunity to buy gas not from a single source, we will be able to purchase gas at the best price on the market, therefore we are looking for potential gas suppliers already now. Cheniere, the USA energy company, is one of the partners with whom Klaipėdos Nafta seeks to agree on the potential supply of gas, but not the only one. In May, a memorandum of understanding was signed with Cheniere, so when the gas terminal is built, Lithuania will be able to buy gas from the Americans. Gas delivered by Cheniere now would cost about 30% cheaper than gas currently supplied by the Russian concern Gazprom. Cheniere and Klaipėdos Nafta agreed to continue negotiations concerning the volumes of liquefied natural gas supply.

The neighbours are also planning construction of an LNG terminal. Will the Lithuanian LNG terminal be competitive?
As the Prime Minister of Lithuania has already said at the meeting of the Prime Ministers of the Baltic Countries, the LNG terminal to be constructed in Lithuania does not have an ambition of being a very large regional project. We want to build a terminal of small capacity, as it is vitally important for us to have guaranties and alternative ways of gas supply.
However, Lithuania has no objections to building a larger terminal by Latvia especially since it has a huge storage. On the contrary, we believe that the terminals in Latvia and Estonia would provide for additional security and a sound basis for a future gas exchange.

What are the opportunities for Lithuanian private capital to take part in the LNG terminal management or funding?
After examining the six accepted offers from well-known international companies, Klaipėdos Nafta chose the LNG terminal project adviser. His task is assessment of current conditions, technical feasibility, risk, environmental impact, etc., and to prepare a detailed work plan for the terminal project. Adviser will suggest the best operating model of the terminal, the strategy for the LNG supply. Adviser will have to justify the required amount of investment, to offer financing sources the most acceptable for the country, including possible funding from the private sector.
Adviser will also ensure implementation of the project.
Business of the country will undoubtedly have an opportunity to get orders for works in various stages of the terminal construction. In the near future, I think, experts will present the analysis of the country's business capabilities, certificates required to engage in the project, and will list the requirements for quality of services and goods.
EU is planning financial support for energy conversion - it has been agreed that there shall be no energy islands in the EU by 2015.

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The LNG terminal (potentially together with the gas storage) – the best alternative for ensuring gas supply

	The main advantages
Liquefied gas terminal	- Eliminate dependence on a single supplier - Ensures the function of the first necessity reserve - Provides with an access to the global gas markets - The price of further development is relatively small
Terminal and storage	- Balances the demand and supply in summer/winter - Ensures greater storage volume than just gas tanks of the terminal
Gal pipeline to Poland	- Provides with an opportunity to get gas from the LNG terminal in Poland

The source: Ministry of Energy

Experience in Spain: Enagas terminal in Barcelona

Just 15 years ago Spain was in a similar situation as Lithuania is today – it depended on a single gas supplier.

Today Spain is the largest importer of liquefied natural gas in Europe and the third largest importer in the world.
Spain built 6 LNG terminals and liberalised the gas market, now Spain receives gas from 14 countries – mainly from Algeria, the Persian Gulf, Nigeria, etc.
Four LNG terminals are managed by Enagas (Empresa Nacional del Gas), the Spanish company for LNG transportation, gasification and storage. Enagas also manages gas pipelines, the terminal being constructed in Mussel and 2 underground gas storages.

Security is in the first place

In order to learn about the technologies of LNG terminals, the representatives of Klaipėdos Nafta visited Barcelona LNG terminal, similar to the future Klaipeda terminal by operating in a port with a very intense navigation, and by being located close to the city. The capacity of Enagas terminal is 12 billion m^3/year.
"It's very important that we could make sure that the liquefied natural gas terminal can be operated very safely - there was not a single incident in Barcelona terminal that could cause damage to the environment or to people during over 40 years of operation," stated Rokas Masiulis, the General Manager of Klaipėdos Nafta.
Archive photo. The Port of Barcelona accommodates successfully operating cargo, cruise ships and LNG terminals.

The Port of Barcelona accommodates successfully operating cargo, cruise ships and LNG terminals. ***Archive photo.***

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Liquefied natural gas (LNG) – is natural gas cooled to -161.5 C. At this temperature, gas condenses into liquid and takes 600 less volume, enabling to solve the problem of ling-distance gas transportation.
Gas is the cleanest fossil fuel in the world, it's odourless, colourless, non-toxic and non-corrosive.
The methods of LNG use are tested, reliable and safe. Two processes, cooling to liquid state and re-gasification are carried out in accordance with modern proven technologies.
LNG is transported in tankers with double hull in order to maintain low temperature of LNG. The tankers' capacity ranges from 5 000 to 266 000 m3 of liquid gas. Minimum draught of a loaded tanker is 400 m, e.g. an average tanker of 120 000 m3 capacity transports 72 000 000 m3 of gas. Delivered LNG is converted into natural gas and supplied to customers.
LNG has been used for over 50 years, mainly in the USA and Japan. Currently the LNG market continues to grow, as LNG becomes a good alternative to oil and gas supplied by pipes from the extraction site.

The source: Klaipėdos Nafta