

TERMINALAS

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ICEBREAKER for alternative



Prime Minister Algirdas Butkevičius, a guest of Terminal, is confident that the Klaipėda liquefied natural gas (LNG) terminal will become an icebreaker and promote competition on the gas market. Lithuania is not alone in its ambition to become free from a single supplier. It is the aim of the entire region.

A while ago you visited Klaipėda, took part in the capsule placement ceremony and were given direct access to the LNG terminal construction. Are you delighted with the progress?

Understanding the importance of the strategic LNG terminal, I take personal interest in the progress of the project and conduct monthly field visits to Klaipėda where we both discuss the construction project and see the actual situation. During my last visit to Klaipėda I was assured that the project was right on schedule. I am pleased that the project moves forward at a fast pace. I can see that Klaipėdos Nafta, the Authority of the Klaipėda State Seaport and the general contractors understand the importance of the project, work hand in hand and



Photo of Algimantas Kalvaitis

quickly and I hope they will continue in the same vein to the end of the project and will manage to address any issues on time. The LNG terminal must be completed by the end of 2014 and I hope that all project partners understand that and are ready to take responsibility.

The Klaipėda LNG terminal will be the first one of this kind in the region of the Baltic states and Finland. What are the opportunities for its regional operation?

The Klaipėda LNG terminal is based

on the FSRU technology, i.e. it is a floating storage and regasification unit. The chosen technological solution makes it possible for the vessel to sail to other seaports as well. An alternative source of gas supply is necessary for Lithuania and the entire region as well. The issue of a regional terminal has been debated for five years but no decisions have been made yet. Our goal is to complete the LNG terminal in Klaipėda as soon as possible because the project will break the ice in the search for alternative gas supplies throughout the region. In

our discussions about the project with regional partners and the European Commission we have made assurances that Lithuania is ready to cooperate and give access to the LNG terminal. We have also discussed the mobility of the FSRU and how Latvia and Estonia could take advantage of this functionality, provided that they create the necessary infrastructure such as quays and gas pipelines. We are completely open to our partners and are ready to cooperate fully.

The Lithuanian gas sector is one of the most insecure sectors in Europe. Is the Klaipėda LNG terminal a sufficient safeguard? How this security will be felt by the population?

We work in several directions in the energy sector. The LNG terminal in Klaipėda is the key tool in ensuring the diversification of the supply of energy resources and a real alternative source of natural gas supply. The project will help reduce our dependence on a single energy supplier, strengthen energy independence and will promote competition on the market. Competition always affects the price level and will have an impact on the gas prices for consumers.



First voyage – successful

The FSRU unit Independence, designed for the Lithuania's LNG terminal, left the shipyard of Hyundai Heavy Industries Co Ltd in South Korea and set off on its own course. Sea trials lasted for nearly a week. Afterwards the FSRU was cleared for safe sailing on its own course. Sea trials are conducted to measure a vessel's performance and general seaworthiness. Testing of a vessel's speed, manoeuvrability, equipment and safety features are usually conducted.

Photo of Hoegh LNG



European Commission: justified and in line with fundamental EU principles

The Directorate General for Competition of the European Commission has evaluated and determined that the method of funding chosen for the Klaipėda LNG import terminal project, business model of the terminal and intended state aid comply with the fundamental principles of the EU Treaty.

The Commission has concluded that the total state aid of EUR 448 million (LTL 1.546 billion) will not distort competition and Lithuania will be able to integrate into the EU gas market.

To assess if state aid was justified, the Commission looked into the EIB loan agreement and carried out an in-depth examination of the project and legal environment. The Commis-



Joaquín Almunia
Photo E.europa.eu n

sion analysed the economic rationale of the project, terms of lease of the FSRU and purchase option, structure of gas tariffs and funding model, legislative framework of Lithuania applicable to the project and choice of project implementation. „State aid will reduce Lithuania’s dependence on a single source of gas supplies and enhance its security of supply. By diversifying the gas supply sources, the terminal will also stimulate competition between gas

suppliers, which in turn will benefit consumers,” said Joaquín Almunia, Commission Vice-President in charge of competition policy. „This investigation was like an examination which we have passed with flying colours. The Commission not only gave us the mandate to continue our current strategy but also acknowledged that the LNG terminal project is transparent, cost-effective and viable. One could say that the last obstacle to secure the funding for the selected business model of the terminal and its construction has been removed,” said Rokas Masiulis, Director General of Klaipėdos Nafta. He added that this was like cutting a legal ribbon. And the second most important milestone after the launch of the terminal. The Commission estimates that in present value terms, the various

public support elements for the construction of the LNG terminal amount to about EUR 448 million. These elements include a state guarantee of the EIB loan of EUR 87 million (LTL 300 million), terminal construction costs incorporated in the gas tariff, the duty to supply 540 million m³ of gas through the LNG terminal and leasing a quay from Klaipėda seaport. „The Commission’s investigation has found that the investment contributes to the security of supply and that the aid is necessary and proportionate to realise the investment. Moreover, the terminal will be open to third parties on non-discriminatory terms, ensuring that there are no undue distortions of competition,” said the Commission’s evaluation. According to the Commission, Lithuania has one of the highest natural gas prices in Europe.



Construction sites pipe welding, drilling of the Curonian Lagoon bed

The construction of the infrastructure necessary for the LNG terminal is moving ahead rapidly: some operations started earlier than expected. A night shift was set up to ensure that the quay and gas pipeline are completed on time.

Mindaugas Zakaras, representative of the pipeline construction contractor PPS Pipeline Systems GmbH, confirmed to Terminal that the company already had 4 out of 5 required building permits and expected to be issued the last one soon. The technical design covering all parts of the project has already been prepared. „The project implementation has been successful and construction progresses at full throttle. We have completed almost all initial preparatory operations for the pipeline, mobilised all the necessary construction machinery and are welding the pipes,” said Zakaras.

By now, more than 15 km of pipes for the gas pipeline have been delivered to the construction sites and major materials such as taps, chambers, filters and other necessary installations have been ordered.

„We are working intensively along the gas pipeline route and have begun key operations: horizontal directional drilling underneath the Curonian Lagoon which is the major challenge of this project,” added Zakaras. According to the representative of the PPS Pipeline Systems GmbH, the team is making every effort to ensure that everything is completed on schedule or even earlier than expected: „We have started the most challenging and longest operations ahead of schedule. We are pleased that all tasks are implemented smoothly nevertheless weather conditions are not always favorable.”

Quay construction round the clock
Vladimir Mironov, Commercial Director of BMGS, a company in charge

of the quay construction, told Terminal that they had already completed major engineering work and were about to finish the detailed design which was related to the simultaneous procurement of the necessary equipment.

„Contracts on the purchase of key equipment have been concluded and other arrangements will be finalised soon,” said Mironov. BMGS will shortly complete geological testing at the site of the future terminal. During the construction of piles, samples of soil were taken for testing to confirm assumptions about the soil made in the engineering phase. Usually, the final length of piles changes during such testing. In total, 134 piles will have to be erected and 86 piles have already been put in place. According to Mironov, prefabricated installations for the handling platform are already in production and concrete pouring has begun. First, the handling platform will be built from concrete. In total, the construction of the quay will require around 6,500 m³ of concrete and around 950 tonnes of reinforcement rods.

„All construction operations at the quay proceed as scheduled. If completion of any task takes us longer than expected, we promptly redirect our resources. Operations at construction sites are carried out simultaneously on different sections and we have also set up a night shift for certain operations,” said the BMGS representative.

Construction of concrete quay

Klaipėdos Nafta, which manages the terminal project, was issued the building permit for the terminal’s quay giving the green light to the concrete pouring operations at the quay. During an official ceremony hosted to symbolise the start of these operations, a capsule containing a letter for future generations was placed inside a pole of the LNG terminal.

At least 540 cubic metres of gas annually

The Government determined that at least 540 m³ of gas will be handled by Klaipėdos Nafta annually in the first 5 years of terminal’s operation. About 1 billion m³ of gas is expected to be pumped in the first year and the future output of the LNG terminal would be 2–3 billion m³. According to the estimates of the specialists of the National Commission for Energy Control and Prices, annual consumption of gas stood at around 3 billion m³ in Lithuania in 2013.

Green light for Klaipėda-Kuršėnai gas pipeline

The Government awarded the expansion project of the Klaipėda-Kuršėnai transmission pipeline valued at around LTL 230 million the status of national importance. After the throughput of the gas pipeline more than doubles, the annual output of the LNG terminal could increase from 1.2 to 2 billion m³ of gas, which would ensure more reliable transport of gas to Lithuanian consumers and integration of the underground gas storage facility at Syderiai into the single system. *BNS*

Presented at international gas forums

Klaipėdos Nafta presented the Klaipėda LNG project at the Brussels forum of the gas industry association GasNaturally and Paris summit meeting of the LNG market players. Participation in international events provides opportunities to listen to the wishes of potential gas suppliers and learn from the best practices of international LNG terminal operators.

LNG Terminal in numbers

Total investments and costs of

1,7
LTL billion (net of VAT)

LTL 1.48 billion

(net of VAT) 10-year lease of the floating storage and regasification unit (FSRU) including crew and maintenance costs

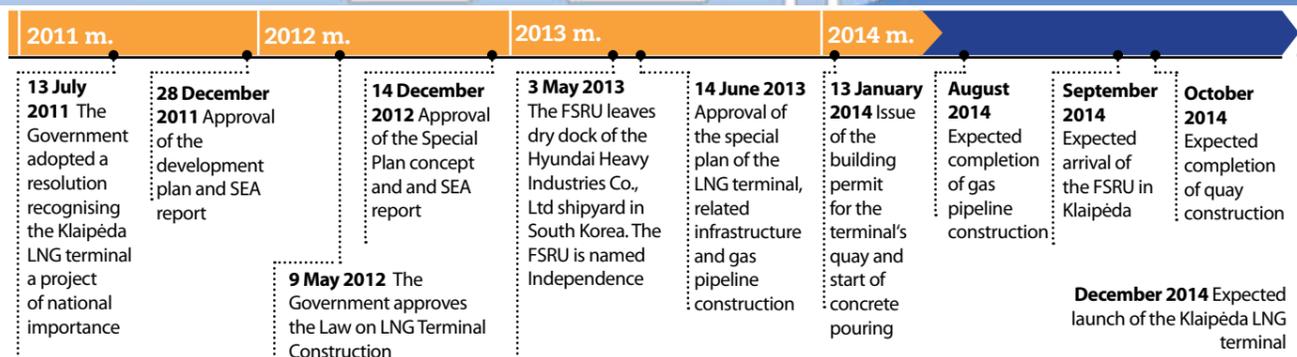
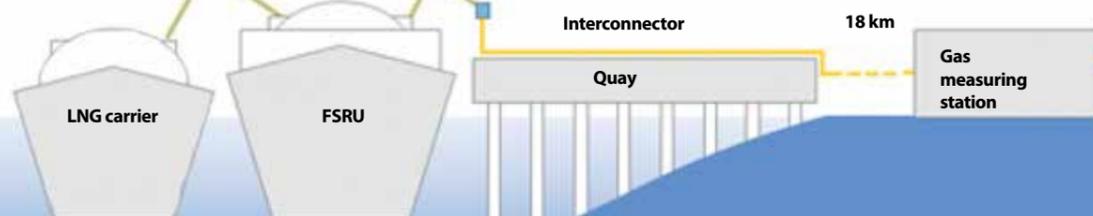
LTL 93.88 million
(net of VAT)

Quay infrastructure and superstructure design and installation

LTL 94.84 million
(net of VAT)

Construction of a pipeline including drilling underneath the Curonian Lagoon

- ← LNG terminal infrastructure
- ← Seaport preparation
- ← Quay construction
- ← 10-year lease of the floating storage and regasification unit (FSRU)





The core of success – smooth beginning

„Klaipėda LNG terminal is the first one of this kind in both Lithuania and the entire region,“

Tadas Matulionis, LNG terminal employee of the year

Tadas Matulionis, Deputy Director of Klaipėdos Nafta LNG terminal department, tells Terminal what goes behind the scenes of the LNG terminal project management team. This year, he was elected the LNG terminal employee of the year.

You joined the Klaipėdos Nafta team in the spring of 2013. What is your role and responsibilities in the LNG terminal project?

I am in charge of two areas. The first one is the construction of the FSRU. The vessel was designed by Norwegian-based Hoegh LNG which hired a shipyard in South Korea to build the FSRU. I consider this a real success. Otherwise, it would be hard to expect that such a complex process which requires special know-how could be managed by us directly as the Klaipėda LNG terminal is the first one of this kind in both Lithuania and the entire region. The floating storage and regasification unit is an integral part of the entire terminal and

my duty is to ensure its interoperability with the remaining terminal infrastructure.

The second area of responsibility is the preparation for the LNG terminal's commissioning and subsequent operation. This challenge is as serious as the actual construction of the terminal.

What is the LNG terminal management structure?

Deadlines is one of the major challenges of this project. According to the plans, the Klaipėda LNG terminal should be completed by December 2014. Usually, the completion date is set according to the estimated scope of work. Since the target completion date was firmly set, many operations were carried out simultaneously, including engineering, hiring of contractors, team building, securing financing, creation of the legal regulatory environment. One of the most challenging aspects in managing this project is the fact that it has to be implemented in an environment which constantly develops. For instance, it would be much easier to

build another terminal in Spain as it already operates several LNG import terminals.

The deadlines are so tight that the team has no room for error. We rely on international project management methodologies and I am not the only certified project management professional (PMP) in our team. Currently, the LNG terminal project implementation team at our company has about 40 members. It is good that the core of the team comes from Klaipėdos Nafta since the company has more than forty years of experience in successful operation of the oil terminal and is in the position to take advantage of synergies.

You have worked for 14 years in the development and management of engineering projects.

What was your view, from the professional standpoint, of the LNG terminal project when you joined the team?

I joined the LNG terminal project at the end of the preparatory stage when all major decisions had been made and before a rapid expansion

of implementation work and start of construction of major elements. When I joined the team, my first impression was that the project had started on a high note because its initial stage was well-structured. It is hard to imagine that the process could be managed within the prescribed time limits now if the preparatory stage was not up to the standard.

What challenges are ahead for this year as the finish line approaches?

I believe that one of the major challenges, in addition to the successful actual construction in progress, will be the preparation for terminal's operation. We will have to recruit staff and conduct the required training. In addition, we will start allocating the terminal's capacity this year by selling services for the first and subsequent years of operation. It is a completely new economic activity in Lithuania and we are currently making every effort to ensure that the terminal's operation is stable from the very first year.

We are trying to adopt the practices of LNG terminals operating in other countries. The Klaipėda LNG terminal is not situated on ground and is based on the floating storage and regasification unit (FSRU) technology which is a relatively new but the most popular technology as of late. Therefore, there is not much know-how in this area and it is needed by everyone all over the world.

Once at a conference where we presented the Klaipėda LNG terminal project, we were approached by the representatives of a large company with long history on the LNG market and were told that our completion of the project within the prescribed timeframe would break the world record. I am confident that we are ready to achieve this target.

Expert: Situation of Lithuania's terminal is unique

Bjorn Brochmann, head of the gas market analysis at Point Carbon Thomson Reuters, said during his visit to Lithuania that the situation of the Lithuanian

terminal is unique: it is very favourable on the one hand but the terminal in itself did not guarantee supply on the other hand. According to the expert,

Lithuania is in the position to offer a better price than most European terminals since Gazprom charges a very high price for gas for Lithuania.

„Therefore, while Europe can receive gas by and large, this terminal may be the first one to actually get it,“ said Brochmann. *vz.lt*