



Visagino atominė elektrinė

# NEWSLETTER

Preparatory Works for the Visaginas Nuclear Power Plant (VNPP) Project

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## In this issue:

**Project Topicalities** 1

Ongoing Geological and Geotechnical Surveys

Assessment of the Opportunities of Local Businesses to Take Part in the Construction Project of the New NPP

Designing Works of Cargo Transportation Routes Have Been Launched

**Cooperation with Authorised Institutions** 2

**Knowledge and Experience** 3

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## Project Topicalities

At the end of January, the Ministry of Energy selected five potential strategic investors in the construction of the new Visaginas Nuclear Power Plant (NPP), who met the pre-selection qualification requirements. 25 energy companies responded to Lithuania's call for investments in the new Visaginas NPP project announced in December 2009. Lithuania seeks to attract a strategic investor who is both financially strong and experienced in major projects such as the construction of a nuclear power plant. The strategic investor is supposed to finance the lion's share of the construction project of the new Visaginas NPP.

## Ongoing Geological and Geotechnical Surveys

Fieldwork of geological and geotechnical engineering surveys commenced on potential construction sites of the new Visaginas NPP at the end of January. Fieldwork, which will last until end of May, will cover the following works: boring two deep boreholes of up to 250 m, 108 engineering geological boreholes of up to 30 m, performing geotechnical soil probing of up to 30 m in 133 points, and boring and exploring 8–16 hydrogeological boreholes. Afterwards, tests of more than 600 soil samples will be carried out in Lithuanian and German laboratories. These works will enable establishing suitability of geological engineering conditions of sites for the construction of a nuclear energy object.

Geological and geotechnical engineering surveys are a sub-component of the project for assessment of potential construction sites of Visaginas NPP according to the IAEA safety standards. The entire project "Assessment of construction sites according to the safety standards of IAEA" is to be completed by the end of 2010.



Picture 1. Fieldwork carried out on potential construction sites of the new NPP

Continue in page 2 ►

Beginning in page 1



Picture 2. Fieldwork carried out on potential construction sites of the new NPP



Picture 3. Fieldwork carried out on potential construction sites of the new NPP

## Assessment of the Opportunities of Local Businesses to Take Part in the Construction Project of the New NPP

At the end of March, “Visagino atominė elektrinė” and “Deloitte Lietuva” signed a contract, whereby the team of international experts undertakes to assess the opportunities of local businesses to take part in the construction project of the new NPP. Firstly, the available capacities of the Baltic Sea Region – Lithuania, Latvia and Estonia – and their preparation to participate in the construction project of the new NPP will be identified and assessed. During the second stage, the strategy and the action plan will be developed for Lithuanian public authorities and the business sector, which will be the basis for proper preparation for the participation in the NPP project. Enterprises and the general public will be informed about the assessment results in June.

According to the estimations, the investment in the construction of the new NPP may account for about EUR 3–5 billion (LTL 10.3–17.2 billion). According to the international experience, local industry – in terms of its preparation and capacity – is likely to perform works, whose value constitutes 20–30 per cent of the entire project. During the construction stage, which typically lasts four to six years, a lot of new jobs will be created: during the most intensive period, construction sites will require labour force amounting to 5,000 workers. Not only construction companies, but also transport companies, manufacturers of equipment and facilities as well as enterprises from the services sector will be involved in the project.

## Designing Works of Cargo Transportation Routes Have Been Launched

The works of designing heavyweight and extra large cargo transportation routes for the construction of the new Visaginas NPP were launched at the end of March. They will be performed by the consortium of enterprises, consisting of the State Enterprise Transport and Road Research Institute and UAB “Kelprojektas”, the winner of the international public tender.

Project proposals concerning almost 40 engineering structures – bridges, overpasses, underpasses, new roads and separate reconstructed sections are planned to be prepared by this autumn. They will be used when drawing up the Special Communications Plan, which is an integral part of this year’s Implementation Plan of the Priorities of the Government of the Republic of Lithuania.

The first stage of the Transportation Study, carried out last year, established and evaluated the potential routes and modes of transportation of heavyweight cargo from the Klaipėda Seaport to the construction sites of Visaginas NPP, and identified the sections of transportation routes that require reconstruction.

## Cooperation with Authorised Institutions

During the first quarter this year, the State Nuclear Power Safety Inspectorate (VATESI) and “Visagino atominė elektrinė” continued to hold mutual consultations, which started back in 2008. The consultations focused on the general safety requirements of nuclear power plants and the assessment requirements of nuclear power plant sites prepared by VATESI.

General safety requirements of nuclear power plants establish the main objectives, criteria and principles of safety as well as technical and organisational instruments to ensure the safety of nuclear power plants. Both stages of designing and constructing will have to comply with this document, which will be the highest level regulatory document.

The assessment requirements of nuclear power plant sites stipulate the assessment of construction sites carried out by the company, which will conduct the preparatory works of the new NPP project, and coordination of the assessment results with the responsible authorities of the Republic of Lithuania.

## Knowledge and Experience

**On 4 February**, Virgilijus Poderys, Director of Economy of the new NPP project development company “Visagino atominė elektrinė”, delivered a report “The Course of the Visaginas Nu-



Picture 4. Conference “Lithuania after the Crisis 2010”

clear Power Plant Project” at the annual conference of the magazine Valstybė entitled “Lithuania after the Crisis 2010”.

**On 15–22 March**, a seminar organised by the International Seismic Safety Centre of the International Atomic Energy Agency (IAEA) was held in Kashiwazaki (Japan). During the seminar, the most important amendments to the IAEA site assessment safety documents, and new documents drafted by Japanese and US nuclear safety regulators to ensure the safety of NPP were presented. Experts from different countries delivered reports and analysed geological and seismic surveys of existing NPP plants worldwide as well as the experience of establishing site safety parameters.

Representatives from the company “Visagino atominė elektrinė” met with Antonio R. Godoy, the Acting Head of the IAEA International Seismic Safety Centre, and discussed the issues of the IAEA expert mission in Lithuania. Verification of the assessment of seismic factors and geotechnical conditions of potential construction sites of the new Visaginas NPP and already accomplished assessment of external hazards (flood,

fire, airplane crash, etc.) is planned to be conducted during the expert mission at the end of the year. The above-mentioned assessments of the sites are a sub-component of the project “Assessment of construction sites according to the safety standards of IAEA” implemented by VNPP specialists.



Picture 6. Seminar organised by the IAEA International Seismic Safety Centre



Picture 5. Conference “Lithuania after the Crisis 2010”



Picture 7. Seminar organised by the IAEA International Seismic Safety Centre