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Current Status of Visaginas Nuclear Power Plant Project

Contents

- Basis for new NPP. Major project milestones up to now
- Visaginas NPP project company - Visagino atominė elektrinė, UAB
– preparatory works
- Technology Acknowledgment
- Legislative initiatives
- Environmental Impact Assessment
- Public Relations
- Summary and conclusions



Present energy situation

- Challenges
 - Ignalina NPP (2600 MWe) shut down and decommissioning
 - Absence of grid interconnections to the EU transmission systems
 - Dependency from “single” fuel supplier

Nuclear Power Background and Programme

- 2 units RBMK-1500 on Ignalina NPP site
 - commissioned in 1983 and 1987
 - shut down in 2004 and 2009 (forecast)
- All spent fuel stored on site (dry storage for 50 years)



Basis. Law on Nuclear Power Plant

Passed by Parliament in June 2007

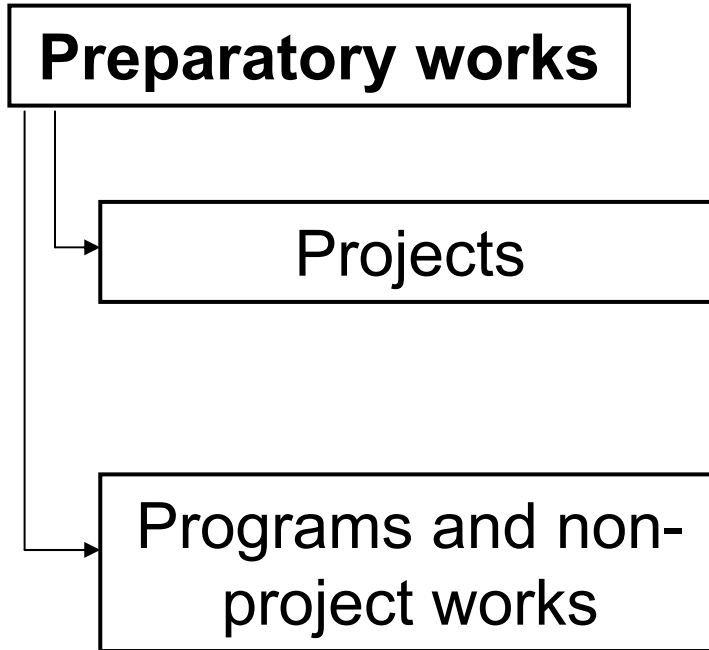
Main objectives and principles:

- **Decision in principle** to construct a new nuclear power plant in Lithuania;
- Formation of the National Investor;
- Establishment of the Project Development Company (PDC), the members of the PDC, their rights and obligations, the criteria's for the members invitation and selection.

NNPP Major Project Milestones up to now

Communiqué	Signed on 27-02-2006	LT, LV, EE Prime Ministers
MoU	Signed on 08-03-2006	LT, LV, EE energy companies heads
Feasibility Study	Approved 25-10-2006	Steering Committee of LT, LV, EE energy companies
Communiqué	Signed on 02-03-2007	LT and PL Prime Ministers
Law on NPP	Passed 28-06-2007	LT Parliament
EIA program	Approved 15-11-2007	Ministry of Environment
National Investor, LEO LT, AB	Established 20-05-2008	LT Government (61.8 %)+ NDX Energija (private) (38.2 %)
EIA report	Issued 27-07-2008	Lietuvos Energija AB
Visaginas NPP project development company (Visagino atomine elektrine, UAB)	Established 28-08-2008	LEO LT, AB

Visaginas NPP project preparatory works



Sequence:

EIA and Technology Acknowledgment → Preparation process for BIS → BIS preparation → Evaluation of bids → Negotiations → **EPC Contract**



Visaginas NPP Preparatory works program - projects

Projects

Environmental impact assessment

Technology acknowledgement

Transportation study

Site evaluation against IAEA requirements

Formation of project development company

Territorial planning

Measurements of Drūkšiai lake hydrological and thermal balance

Site environmental due-diligence

Acquisition of land plots

Transmission grid technical requirements

Preparation for procurement process

Procurement strategy

BIS preparation

Submission of bids

Evaluation of bids

Negotiations

Ordering of long-lead items

Ignalina NPP infrastructure take-over

Visaginas NPP Preparatory works program - programs and non-project work

Programs and non-project work

Provision of financing for Preparation works phase

Organization and HR development program

Legislation related activities

Public relations

Financing assurance process

Program of IT infrastructure preparation

Management of relationships with Ignalina NPP decommissioning

Development of Visaginas office



Technology acknowledgement

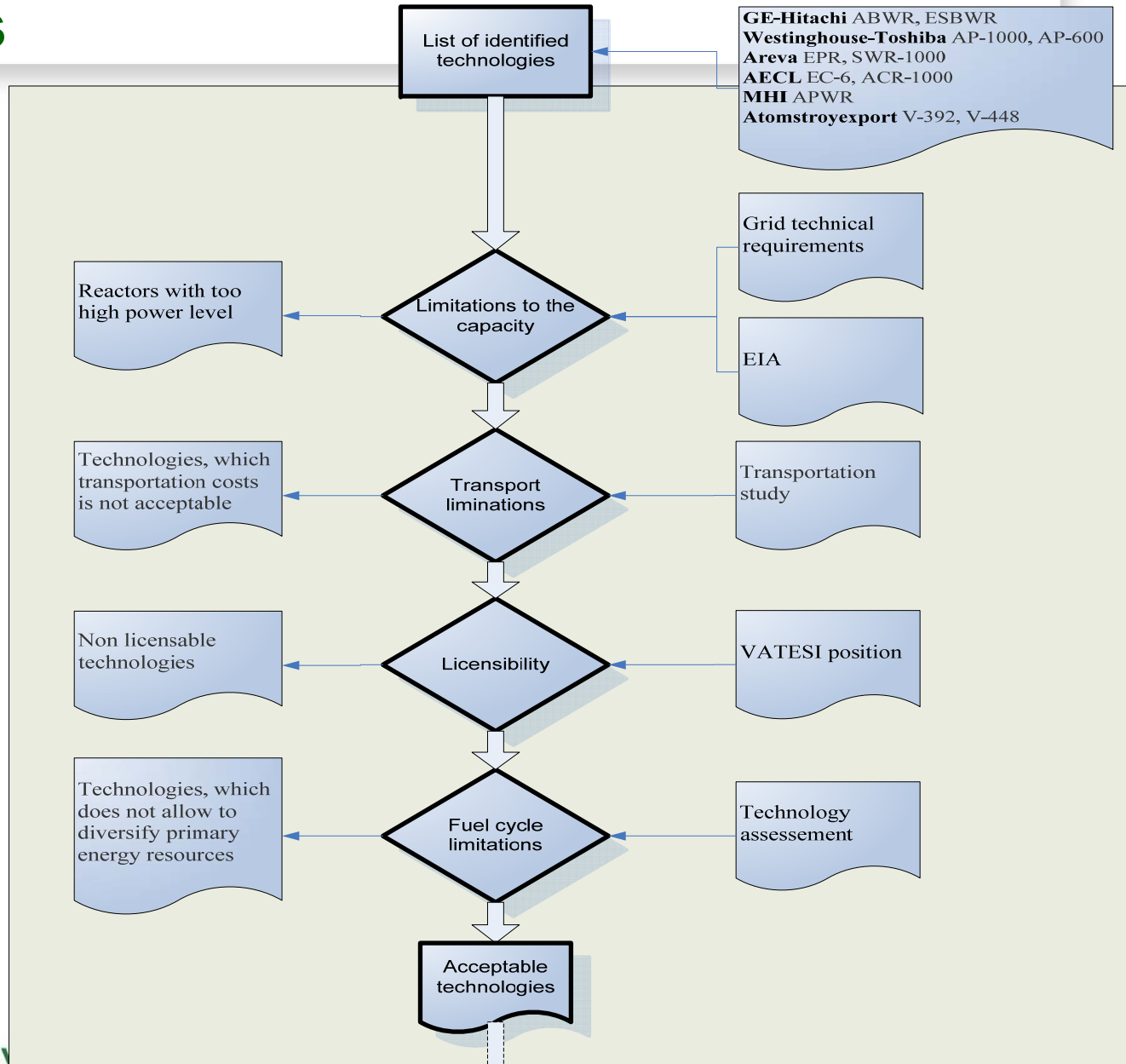
- After the FS (2006), the dedicated project for technology acknowledgement has been implemented with following aims:
 - to establish relationships with potential suppliers of nuclear technologies and project partners;
 - Identification of the nuclear technologies, available on the market and ready for implementation;
 - to update the current knowledge in nuclear technologies and to create team capable to go for the next steps;
 - to identify risks that could limit the possibility to implement the new build project in Lithuania;
 - to prepare basis for the technology evaluation carried out in the next stage.



Next steps

- Preparation for procurement process:
 - Establishment of a set of criteria for technology assessment;
 - Assessment of technologies against defined criteria and development of a shortlist of acceptable technologies;
 - Establishment of procurement strategy;
- BIS preparation

Technology selection – possible limiting factors

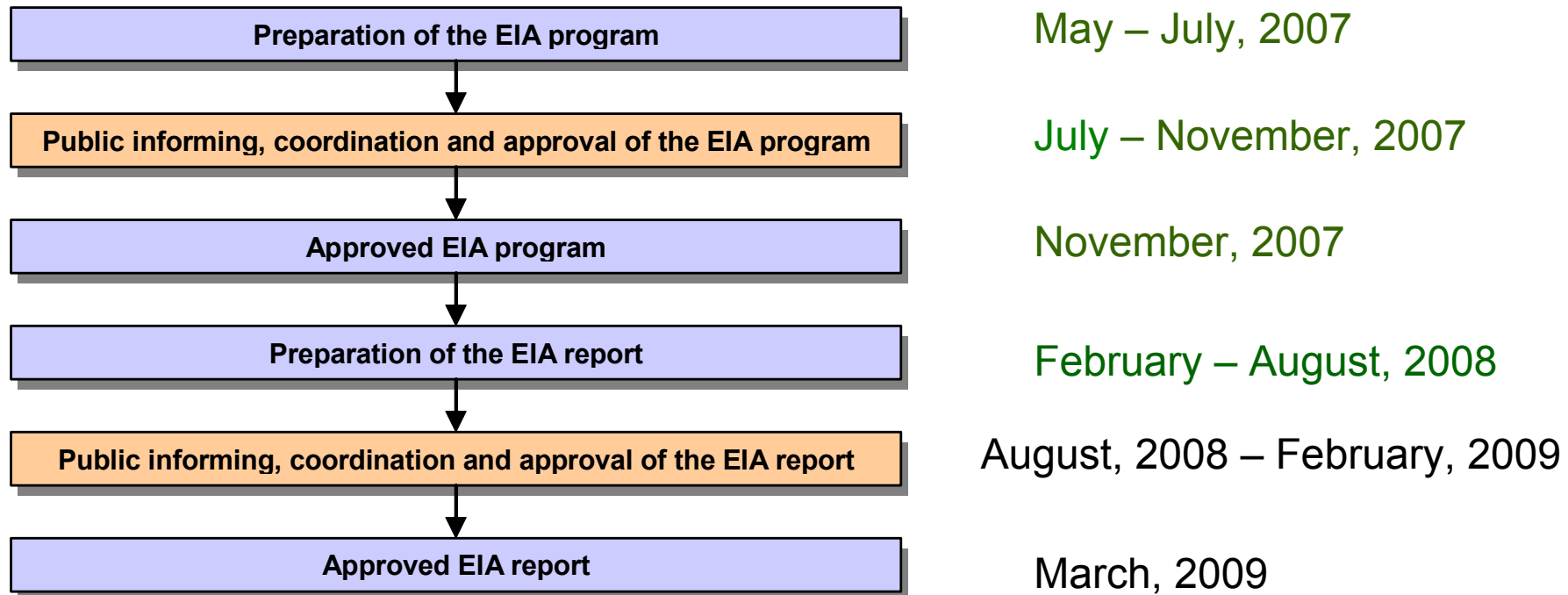


Legislative initiatives

- Existing nuclear legislation was mainly developed to regulate the activities of existing nuclear power plant – Ignalina NPP
- After adoption of the Law on Nuclear Power Plant (2007), the Government has given the task to review the existing legislation to address the issues related to construction of a new NPP in Lithuania
- Law on Nuclear Energy, Law on Radiation Protection, Law on Management of Radioactive Waste and other laws are being revised
- More than 20 other legal acts shall be reviewed and revised



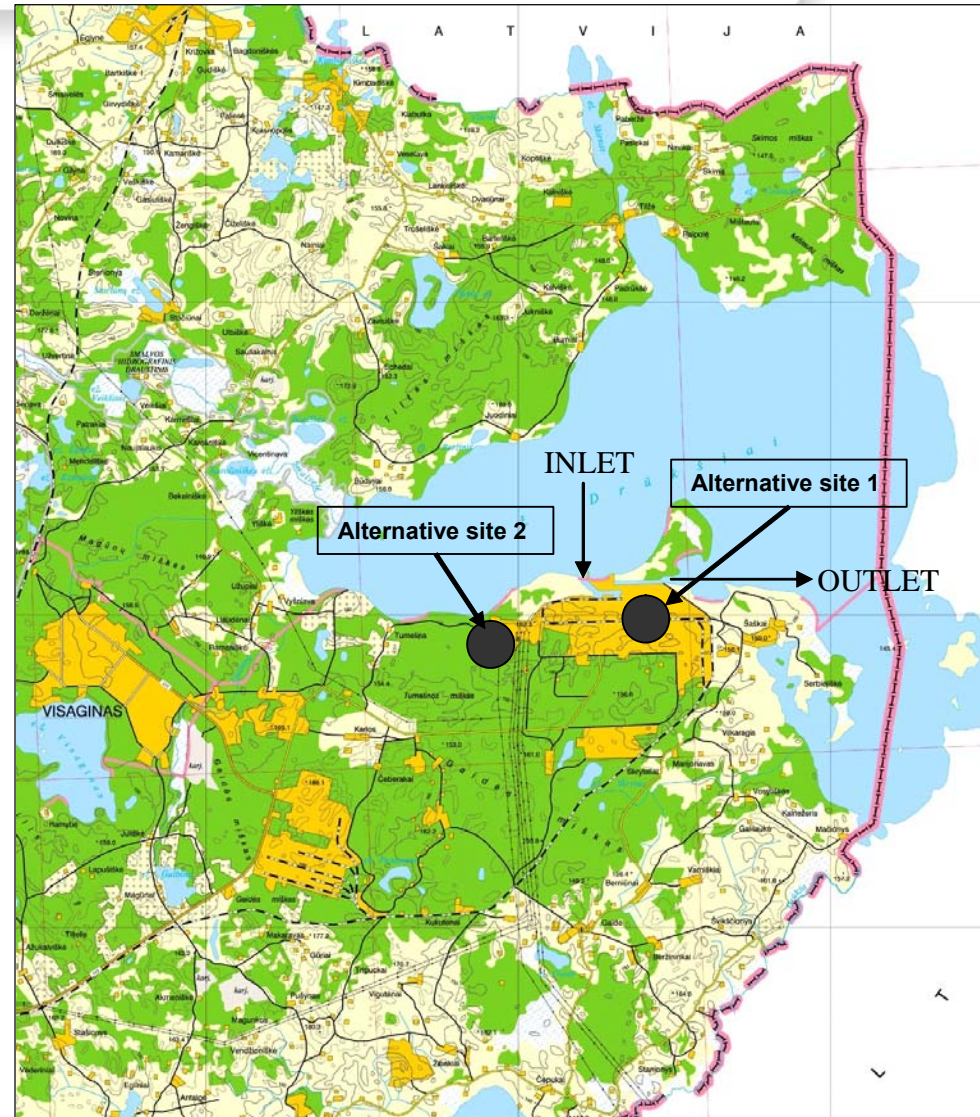
New NPP EIA: schedule



New NPP EIA report: technological alternatives

- The main technological alternatives for nuclear power reactors are:
 - pressurized water reactor (PWR)
 - boiling water reactor (BWR)
 - pressurized heavy water reactor (HWR)
- 11 different reactor designs assessed in the EIA, all are generation III or III+ reactors
- The reactor type to be chosen for the NNPP in Lithuania shall be safe, employ proven technology and be in line with the most recent developments in nuclear technology
- Safety requirements and impacts of different reactor types do not differ significantly from each other

New NPP EIA report: site alternatives



NNPP EIA report: power generation level and cooling alternatives

- The targeted maximum power generation level of 3 400 MWe is acceptable from an environmental point of view
- As there is an upper limit to the amount of warmed cooling water which Lake Druksiai can tolerate, it may be necessary to implement other cooling solutions in combination with direct cooling
- Due to ecological reasons, direct cooling is only possible up to a thermal load to the lake from the NNPP of approximately 3 200 MW_{thermal released}
- The current cooling water outlet is the best when the warmed up water area of the lake is used as a criteria

Public Relations

- Structure of the Website gives emphasis on communication through education.
- Branding nuclear energy as safe, environmental friendly, advanced and economical source of energy.



English Svetainės struktūra

Visagino atominės elektrinės projektas Lietuvoje

Projektas nuo A iki Z

Branduolinė energetika

Mokslieviams ir studentams

Verslui

Žiniasklaidai

Kontaktai

Naujienos

2008-08-27

[Kviečiame susipažinti su parengta poveikio aplinkai vertinimo \(PAV\) ataskaita](#)

2008-09-03

[Poveikio aplinkai vertinimo ataskaita pristatyta valstybės ir savivaldos institucijų atstovams](#)

2008-08-28

[Isteigta UAB „Visagino atominė elektrinė“](#)

2008-08-27

[Nauja atominė elektrinė Lietuvoje vira galima ir leistina](#)

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[Naujienų prenumerata](#)

[RSS](#)



Ekologija »



Pažanga »



Sauga »



Ekonomika »

Summary and Conclusions

- Lithuania with its National Energy Strategy (2007) committed to continue with the nuclear energy - to start the construction of a new NPP
- Establishment of national investor LEO LT, AB and formation of project development company – Visagino atominė elektrinė, UAB – allows to continue all necessary identified Visaginas NPP preparatory works
- The entire spectra of preparatory issues were identified the results of which shall be the basis for the success of Visaginas NPP

Thank you for your attention
Questions?

www.vae.it

