

NUCLEUS SLOWLY, BUT NEVERTHELESS

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The increase of energy-fuel commodities belongs among the basic reasons which raise the prices of energy all over the world. It is because of technical revolution in the most populous countries: China, India, Brazil, Indonesia, Nigeria, etc. The world-prices of uranium concentrate systematically increase as well, because of the decision of many developing economies to solve their electricity safeguard through nuclear sources. In continuity with increasing prices of energetic commodities (in decreasing advance): oil, natural gas, coal, uranium concentrate, electric energy, comes to of the most proper ways to energetic safety. Nuclear energy seems to be advantageous concerning priority ways, because of combinations of the following factors:

1. fuel elements can be prepared in advance and be used in longdated time horizon,
2. meteorologic extremes usually do not disturb working of nuclear installations,
3. nuclear reactors are from the scope of CO₂ production practically nonemitting sources,
4. the price of uranium concentrate is projected into the price of fuel element with relatively small portion.

Since the time of memorable announcement of US president George Bush, (to the Development of National Energy Politics, May 17, 2001) stated that US intend to expand the use of clear and safe nuclear energy in the frame of diversity of future energy resources, the president started the renaissance of nuclear energy, which leded mainly in the last three years to revaluation of attitude of many countries to nuclear energy, mostly in out-european countries (China, India, Japan, US, Russia, Australia), but also in some european countries, mainly after the declaration of International Energy Agency (Nov. 2006) inciting governments of developed countries to support construction of nuclear power plants to decrease climatic changes and increase energy safety.

In the world list of countries with the highest amount of nuclear energy at the first place are US, where 103 nuclear piles are operated, and the government intends to enhance the number about 24 others. France is posted at the second place, and Japan preparing put into operation 55th nuclear block in y. 2009 is in the third place. A significant reinforcement for nuclear pool is India, which will help, according to nuclear treaty with US, to ameliorate the press on global demands for other energy sources. Russia according to federal program will build 10 new blocks till 2015 with capacity 11 000 MW and 10 others will be under construction. The support to nuclear energy development declared already Argentina, Egypt, Jordan, Turkey, Yemen, Maroc, etc.

In Europe the construction of NP Okiluoto 3 in Finland has been announced, NP Cernavoda in Roumanien, NP Ignalina as common project of Latvia, Lotyš, Estonia and Poland, extension of NP 34 in Mochovce, Slovakia, NP in Belene in Bulgaria and a new NP in Swiss. Retarded conviction are born by Austria, Germany and Belge.

On Juli 15, 2008, European Union has deliver to Slovakia permission to finish the construction of EMO 3,4. EU does not ask for new EIA-study. EU recommended but not demanded the construction of 3rd core of the pile. The SE, a.s. invited tenders (August 2008) for finishing of new blocs of NP Mochovce 3,4. It was published in official journal of EU. Actual works on construction of NP ought to begin in April 2009 and should finish in Juni 2011. Applicants interested to take part in tender should apply since Sept.18, till Dec. 8, 2008. Tender will not include the energetic part, but only construction of buildings, water infrastructure and climatisation.

The works on both 440 MW blocs in Mochovce 3,4 have began in 1987 and in 1992 were discontinued.



SK09K0016

Fully finished EMO 1-4 should be connected to electric net in 2012 and 2013 and the cost of completion should approach to 1.6 mil eur. Slovakia will be unable to do without nuclear energy – 57 per cent of electricity comes from Mochovce or from older piles in Jaslovske Bohunice. The completion of NPs in Mochovce will help us for some years to turn off an import of energy.