

This interview offers you everything you ever wished to know of Hungary’s proposed, major nuclear project. The in-depth interview is like the transcript of a symposium about the pros and cons of Hungary’s planned life extension and expansion of the Paks nuclear power plant. The issues addressed are technical and financial but the language is for the general reader.

A staffer of the Climate Policy Institute and Applied Communications since 2002, the interviewee, environmental engineer András Perger specializes in nuclear energy, conventional energy resources and energy policy.

Nagy: It’s planned to build two new reactors at Paks. Given the events of the past 12 months, is it more or less likely that they will be built?

Perger: I don’t have the information to tell.

Q: Who has?

A: Few if any. The outcome of that project depends on a zillion factors, none of them known yet. Both the Russians and the Hungarians appear to have political purposes with the project because it has hardly any sense for energy generation. Putin’s goals are apparently clear: to recruit allies in the region who he can influence. But the goals of the Hungarian government are little known.

Q: Are you sure that the project hardly makes sense for energy generation? The Hungarian government argues that nuclear energy is indispensable because presently Paks supplies nearly 40 percent of Hungary’s energy consumption, with the remaining 30-30 percent being divided between imported electricity, and gas- and coal-fired power plants. As the domestic power plants that generate electricity are obsolete, that argument seems plausible.

A: Let’s start clarifying phraseology. Until January 2014 it had been stated that the Paks complex will be enlarged, that is to say, two new reactors will augment the present four, which means the present capacity of 2000 MW will be increased to about 4400 MW. A Hungarian parliamentary resolution of 2009 said the same and it added that the new one reactors should be made operational by about 2021. The phrase “capacity maintenance” was used first in Hungarian political spiel in January 2014 to justify certain decisions. That term is misleading because the reactors that are currently in use will remain operational until the mid-2030s and by that time energy generation will have been doubled at Paks alongside the new reactors. But the Hungarian electricity system doesn’t need that.

Q: But that overproduction will only last for a couple of years.

A: What you call “couple of years” can last for up to eight years.

Q: But it is planned to export the surplus.

A: The two new reactors are to be finished by the mid-2020s but Hungary won’t need that much electricity then. With that massive overproduction all the other domestic power plants - wind, gas or other - will have to be closed down at nights. Why? Paks will have six reactors

between 2026 and 2034. Even if all the other Hungarian power plants are switched off for the night, some of the surplus will have to be exported and it is questionable if there are customers to buy electricity at the price offered by Paks.

Q: With such surplus Hungary wouldn't be forced to import electricity.

A: Even today Hungary is hardly “forced” to import electricity. The domestic power plants don't work at full capacity because imported energy is less expensive. Paks 2 or not, other new power plants will be needed but who will want to build power plants for a market where there is a state-owned nuclear power plant with a massive surplus capacity? Paks, which will enjoy administrative and financial support [from the state], will pull the rug from competition. And then I haven't mentioned that Paks 2 is too expensive, and its return on investment and financing are uncertain. At the end of the day we might as well get electricity from Paks 2 that will be too expensive to be sold. That this project is to finish by the mid-2020s is problematic. We could use the term “capacity maintenance” if the two new reactors were to be finished by the mid-2030s. In the latter case the domestic energy community could open a debate on what to do when the old reactors are decommissioned and whether Hungary needs nuclear energy.

Q: Can anyone realistically doubt that Hungary should have a nuclear power plant in the 2030s?

A: I for one can, and it wouldn't be too late to draw up plans with that working philosophy. Resources should be reassigned towards the renewables and making energy use more efficient.

Q: Gas, oil and coal feature high alongside nuclear energy in the global energy mix. Don't you overrate the renewables?

A: Hungary is at crossroads. It's too late for Hungary to rely only on renewables by the mid-2030s. Even Denmark plans to do so only by 2050. But Hungary could replace the capacity of the present four reactors of Paks with renewables in twenty years. Once construction of the new reactors gets underway, there won't be stimulus for building power plants for renewables. Worse, it's high consumption that forces Hungary to import energy. The long-term goal should be pushing Hungary towards self-sufficiency and providing energy from local sources. It's not just the protection of the environment that prompts me to say so. The Hungarian economy performs poorly in energy intensity: too much energy is used to produce a unit of GDP. The first step should be reducing the energy requirement and then looking for sources of energy should come afterwards. Let me repeat: it could be a realistic goal to get rid of the Paks nuclear power plant by the mid-2030s. That's why it is unjustified to embark on the building of two new reactors.

Q: Though the signatories of the treaty were Hungary and Russia, others can also play a role in its implementation. The European Union for one and perhaps the United States too. What about the EU's role in this project?

A: The European Union has little say in whether the member states have a nuclear power plant built. Obviously, the EU has to be notified, especially if non-EU countries also take part. The agreements have to be submitted to the European Commission and apparently the Hungarian government has done so. But the EU is not an arbiter in such affairs. There are however several EU rules that such a project must comply with. Such rules apply to all types of power plants: nuclear, wind etc. As far that compliance is concerned, there might be problems and the EU has already launched an inquiry into the case.

Q: They are examining the question of state aid.

A: Exactly. On the one hand Hungary is supposed to prove that the project won't include state aid, but on the other hand the state raises the credit for the project. So Hungary will have to explain how not to see this arrangement as including state aid whereas the whole project is financed from public money. [...] The European Commission is to formulate a position this year and its response will probably include political considerations. Mentioning the EU's response: when in 2014 Hungary came under EU criticism, Paks wasn't mentioned. Only Washington broached the topic after the visa scandal.

Q: Is there a link between, on the one hand, [the head of the Prime Minister's Office] János Lázár's statement made in late 2014 that he would hire head hunters to recruit Western experts to manage the Paks nuclear power plant and, on the other hand, the European Union's tolerant attitude to Paks?

A: I don't think so. Earlier no one mentioned hiring experts from the EU or from the US. Lázár's statement only shows that the government wishes to “improve” efficiency at Paks. But I have doubts here: at a nuclear power plant business considerations and safety contradict each other. Take the example of news that the Paks staff is to be reduced: such a move might prove unwise later on. In 2013 an attempt was made to merge the Hungarian Energy and Public Utility Regulatory Authority and the Hungarian Atomic Energy Authority but merging energy generation with nuclear safety would have caused serious incompatibility problems. The government eventually abandoned that plan but acted as if it didn't know what it had intended to meddle with.

Q: In the early 2000s it was publicly debated whether the CEO of Paks should be an “expert” or a “manager.” Csaba Baji was replaced by István Kocsis as CEO. The first was backed by Fidesz and the latter by the Socialists. Neither of them had field experience about nuclear facilities.

A: That may have been a factor in the incident that occurred at Paks in 2003. There was a drive for efficiency and safety considerations were slighted. The Western experts of a French-German company were also to blame for that incident because they had supplied Paks with an ill-designed vessel for fuel cleaning.

Q: When cancelled nuclear power plant projects are discussed, Belene, Bulgaria, is mentioned. Rosatom of Russia was supposed to build a nuclear power plant at Belene under

an agreement signed with a leftwing Bulgarian government. After a conservative government came into office, in 2012 it cancelled the project. In Hungary about 90 percent of the Members of Parliament are pro-nuclear energy, so the Bulgarian scenario is unlikely to happen here.

A: Just like Fidesz, the Hungarian Socialist Party, the Democratic Coalition (DK) and Jobbik have always favored the expansion of Paks. In Bulgaria there was a pro-Western government that had the courage to scrap the project. Besides, the agreement Bulgaria had signed with the Russians was botched. I wish we knew the technical details of the Hungarian-Russian agreement. What little we know doesn't seem to be promising. For example we know nothing of the Hungarian-Russian agreement that was signed in December 2014 on the supply of components and on construction work and we don't expect to get more information later. The magnitude of costs that the Hungarian government has made public appears to be realistic. In Bulgaria the authorities first told the press that the project would cost a mere EUR 2 billion, which was a farce but later they admitted that the expected price tag was EUR 10 billion. As the Russian-Bulgarian agreement failed to provide for inflation in Russia, the Bulgarians were shocked to learn that the Russians came up with a higher price. Let's hope that the Hungarian-Russian agreements include guarantees against such rude “surprises.” Hungarian government commissioner Attila Aszódi has declared that the agreements include numerous guarantees but because the last time a nuclear power plant was built in Hungary was forty years ago, related Hungarian practical expertise is limited. In this respect the Russians were in a more comfortable position, and the Russian-Hungarian negotiations about the agreements were rushed.

Q: What would be the consequences if Hungary walked away?

A: Hungary could have withdrawn from the project free of charge until December 9, 2014. Since then Hungary has signed the agreement on the supply of components and on construction, so Hungary is certain to have started investing heavily in this project. In the budget estimate for 2015 at least HUF 28 billion has been earmarked for it. As the Russians will also start working on it, cancellation would become more expensive by the day. When Bulgaria cancelled the project, Russia demanded from it EUR 1 billion even though work has not even started in the construction site! The later Hungary would withdraw, the more expensive such a move would be. The EU's veto could put an end to this project, or if the Russians ran out of surplus funds to pre-finance it.

Q: How do you see the role of the United States in all this? In Bulgaria the Americans were in hot rivalry with Rosatom because they wanted a US firm to build Belene. The Americans are lobbying so that the Hungarian MOL Group's stake in the Croatian INA oil and gas firm shouldn't be sold to Gazprom. What do you think of their role in Paks 2?

A: Senator McCain and Chargé d'Affaires Goodfriend have criticized Hungary in connection with Paks. Probably it's not corruption among Hungarian public officials but the

strengthening of Russian influence in this region that worries them. With the recently signed Hungarian–Russian agreements Hungary is even more dependent on Russia for about the next thirty years. The Americans are attempting to put pressure on us in this connection.

Q: The critics keep reminding the public that the award was given to Rosatom without a competitive bidding process. Would it have made any difference if bids had been invited? In the nuclear energy sector competitive bidding is often avoided.

A: True. Foregoing competitive bidding has been the rule rather than an exception in many countries of Europe in this sector because that is not compulsory. In the case of Paks it only stirred some controversy because in 2009 the Hungarian authorities began promising a competitive bidding and MVM [state-owned Hungarian electricity wholesaler] was working intensively to prepare the tendering procedure for years.

Q: As late as the end of 2012, even Sándor Nagy, CEO of Paks 2 Pte. Ltd. promised competitive bidding.

A: The last time an MVM staffer mentioned the open competition was in November 2013. The nuclear energy community was preparing for it at full steam. And then suddenly news broke that there wouldn't be bidding procedure and in fact an agreement with the Russians is a foregone conclusion. According to the official explanation the Russians were chosen because only they had offered pre-financing the project. I believe that explanation but cannot help asking if there are strings attached. Will not that deal reduce the Hungarian government's elbow room in other Hungarian–Russian transactions? Later in 2015 Hungary will have to renegotiate a long-term natural gas supply agreement, and that agreement includes some provisions that are inconvenient for us. And then I haven't mentioned the aborted South Stream project. At the end of November the Russians announced the dropping of the South Stream project, then, a few days later Putin phoned Orbán, and just two days later the two sides signed the agreement about the supply of components and constructing Paks 2. Only a few days before the Hungarian government commissioner had told the press that the date of the signing of that accord was not decided yet.

Q: Attila Aszódi has told the press that the Paks project would be profitable also because electricity produced there will cost about HUF 17 per kWh. Is it possible to predict what the self cost will be for twenty years from now and whether that price will be competitive then?

A: It is the thorniest problem of energy projects that they are very expensive and can only repay themselves within decades. That by the way also applies to gas pipelines. But back to your question: in the case of a power plant it can be safely predicted how much the self cost will be for the energy produced. But as for the market price of electricity, only estimates can be made. For such an estimate we have to suppose that, say, in 2042 Hungary will still be a member of the EU and the EU market will be similar to what it is today. The figures Attila Aszódi has told the press cannot be considered as official; economists specializing in the

energy industry question his methods of calculations.

Q: The Hungarian government is unwilling to make public the interstate agreements. Moreover, a recent Hungarian official document recommends not publishing the subcontractors’ agreements either. The Hungarian authorities state that it’s international practice to treat such documents as confidential.

A: Two conflicting considerations are at play here. The Hungarian state plays the role of a paternalistic provider that solves the energy problems of Hungarians and for that reason it passes laws, sets up institutions and allocates public funds. When however members of the public make an inquiry about the details of the project, the state poses as if it were a profit-oriented business actor that has business secrets. The two roles are in conflict. I’m not in a position to tell how much of the supply and construction agreements should be made public, but some of them certainly should. There are some important issues related to the project that the government is reticent about, including the total cost.

Q: Perhaps it cannot be known at this stage.

A: When you buy a car, you are told a price.

Q: Wait a minute: building a nuclear power plant is a much more complex matter.

A: But still, there must be a price. And it would be good to know what’s included in that price. It is clear that the two new reactors can only start operation if additional investment projects are made on the premises of the power plant and outside it. The additional projects won’t be pre-financed by the Russians – but then who will finance them and how? What does the Hungarian government think of the impact of this project on Hungary’s public finances? How will the government handle the risks of corruption? If there are plans and estimates about that, they should be made public. For the outsider it seems that what we see is a series of improvisations. Hungary has embarked on a project without knowing for sure whether the European Union is halting it. Why didn’t Hungary follow the example of the United Kingdom: they publicly announced that there would be public aid for the proposed Hinkley Point B nuclear power plant and asked the opinion of the European Union whether or not the mechanism they had devised is approved?

Q: Under that mechanism the British state would purchase electricity at a fixed, very high price, irrespective of whether the market price is lower or higher.

A: Yes. The European Union first criticized several components of that British mechanism but eventually approved it if certain conditions are met. By contrast, Hungary signed agreements with the Russians first, and then began bargaining with the EU. A nuclear power plant is planned for 60 or 70 years (including lead time) – that is why this rushed, haphazard decision-making process is grotesque. Given the immense size of the public funds to be spent on the project – HUF 4000 billion without the connected investment projects – this high level of secrecy is distressing. What to think of a government that is silent of the foreign exchange risks of a credit of EUR 10 billion in Hungary of so many countries, where

FX mortgage loans burden the lives of so many citizens? And what if the forint weakens uncontrollably? In that case the debt to the Russians will cost us much more, and that will affect the price of every kWh of electricity produced. Make no mistake: come what may, we will have to repay the debt to the Russians.

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