After Hinkley Poinct C, now the European Commission agreed on the support scheme for Paks II – More reactors with public funding in the EU?

March 6 2017

History of European Commission and state aid for nuclear projects

After the failed attempt in 2013, when the European Commission (EC) had to withdraw the proposal to grant nuclear power a similar support scheme as for renewables via the Environmental and Energy State Aid Guidelines (EEAG) for 2014-2020, the „case-by-case" decisions for state aid for nuclear new build have to be applied. After the positive decision in favor of the Hinkley Point C project in 2014, now Paks II has received the green light for another state aid scheme.

Such a „case-by-case" decision could also be requested by a few more countries. We take a quick look at the possible projects and countries and where they are standing right now. Some of them have been clearly insisting that no state aid will be granted for their new nuclear investment projects. However, this was the case in the UK as well with the European Commission (PINC 2007)[1] who used to claim that no public money would be needed for new nuclear power plants (NPPs).

HUNGARY – Paks II project background

The Hungarian Parliament granted the license to begin the preparation activities for the two new nuclear units on March 30, 2009, while the Hungarian Atomic Energy Authority granted the site investigation and evaluation license in November 2014. MVM Paks II Nuclear Reactor Development and Nizhny Novgorod Engineering Company Atomenergoprojekt (NIAEP-ASE) signed three implementation agreements in December 2014 for the Paks II construction. Most importantly, the €12.5bn project is backed with a €10bn loan from the state of Russia. Hungary has to repay the loan over 21 years of the plant's operation.

No tender was conducted for the construction of the Hungarian NPP.

The nuclear project will be delivered fully from state resources. Hungarian authorities decided about the investment, it is financed from the national budget, the risk of the investment and the debt service of the Russian credit is on the Hungarian state and the Hungarian tax-payers.

Still, Hungary argued toward the EU Commission, that none of this constitutes state aid, because there is full return of investment. However, there are several reasons for doubt, as the analysis of the Rothschild report by Felsmann for the Energiaklub[2] showed that not the total costs of the projects were included (grid improvement, maintenance etc.), wrong preconditions were assumed (92% of availability of the plant) and modelling showed, that the generation costs at Paks will be too high to be sold on the electricity markets without subsidies.

1 http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52008DC0776

2 *Can the Paks-2 nuclear power plant operate without state aid? A business economics analysis*, Balázs Felsmann, Corvinus University of Budapest, June 2015

Additional subventions which might become necessary much later: Even more state support will be necessary, other than the investment aid, because there is high chance that the operation of the plant has to be supported financially as well.

Another aspect is of course waste management and costs of decommissioning. According to the Hungarian position cited by the decision of the Commission, the costs of decommissioning and waste management will be 2.1 EUR/MWh and 2.7 EUR/MWh with a conservative estimate regarding the evolution of interest rate. This price is highly underestimated. The payment of Paks I to the Central Nuclear Financial Fund in 2013 was specifically 4.5 EUR/MWh as calculated from the data. The base parameter of the study of Energiaklub cited earlier (Felsmann, 2015) was 6 EUR/MWh.

THE CZECH REPUBLIC – DUKOVANY and TEMELIN

Here the government and the nuclear lobby have been hoping that also the Czech government would decide for the Hungarian model of reactor financing. While officially nothing is decided yet, the way is being prepared for constructing one reactor at the Dukovany site very soon and one at Temelin later.

The Czech government passed a special program in 2015, dedicated to increasing the nuclear share from current 35% to 50 %, the National Action Program. The plan foresees the construction of two new reactors at the existing sites of Temelin and Dukovany each. Currently the government is expecting the replies by several nuclear suppliers on technical and investment issues until end of October; based on this information the investment model is to be chosen. Already last year a new company, a special purpose vehicle (SPV) was founded, 100% owned by the largely state owned utility ČEZ; currently the transfer of property is taking place. The general ideas seems to be that the risk is not carried alone by the Czech state, but also ČEZ or other Czech companies or a group of investors. However, the decision will not be taken before 2017, after the next parliamentary elections. It is likely that some model similar to the one used in Hungary to buy a Russian reactor will be the outcome.

ROMANIA – CERNAVODA 3 & 4

On November 9, 2015, representatives of Nuclearelectrica and China General Nuclear Power Corporation (CGNC) signed a Memorandum of Understanding regarding the development, construction and decommissioning of units 3 and 4 of the Cernavoda Nuclear-Electric Plant. Early 2016 the Romanian government approved a support letter declaring that the Cernavoda nuclear plant is a priority strategic project and can be built with the help of state aid. Negotiations with the Chinese partner (CGNC) have been taking place, however, there are some unsolved issues, the deadline for the completion of negotiations has been extended twice, and was extended in October until December 20, 2016. According to the operator of the Romanian NPP Cernavoda, Nuclearelectrica, the possible support mechanisms reach from Contract for Difference (CfD) to a series of fiscal facilities and state guarantees for the project financing. The company is aware of the fact that these support mechanisms are in fact state aid and would need approval by the European Commission.

POLAND – LUBIATOWO-KOPALINO or ŻARNOWIEC

While Poland for years has been presenting itself as a nuclear newcomer and continues the efforts to build the first nuclear power plant, the new Polish government´s economy ministry rejected possible Contracts for Difference. This is seen as the complete reversal of the preferred model up to that day, because the possibility of CfDs has been floated for the past years.

BULGARIA – BELENE or KOZLODUY

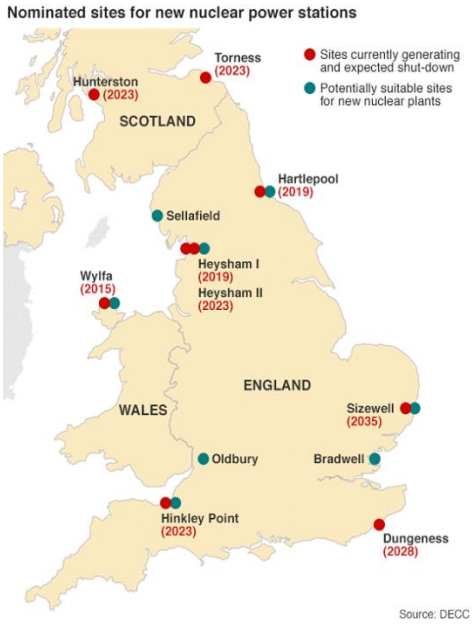
In Bulgaria the construction of an additional reactor, at the Belene site or Kozloduy, does not go away. The government stated, that this would be the investor´s responsibility and that no subsidies will be made available for a new NPP.

SUMMARY

European Commission agrees with subsidies for Paks II – Consequences

The Paks II financing model is following the footsteps of Hinkley Point C and this might be serving as a blueprint for similar projects all over Europe.

The most concrete plans to draw up state aid schemes are for two reactors in the Czech Republic (1 Dukovany, 1 Temelín) and two in Romania (Cernavoda 3&4). Governments in other countries intending to build NPPs – Bulgaria and Poland – officially deny any intentions of granting subsidies. However, if they are serious about ordering new NPP or reactors they will find out that there are no investors and suppliers who are willing to take the enormous risks and financial burdens without large state support as the UK had to take on with Hinkley Point C and now Hungary with Paks II. In the UK projects include NPPs at several sites.



Hinkley Point C 3,200 MW

Oldbury 2,600 MW

Moorside 3,400 MW

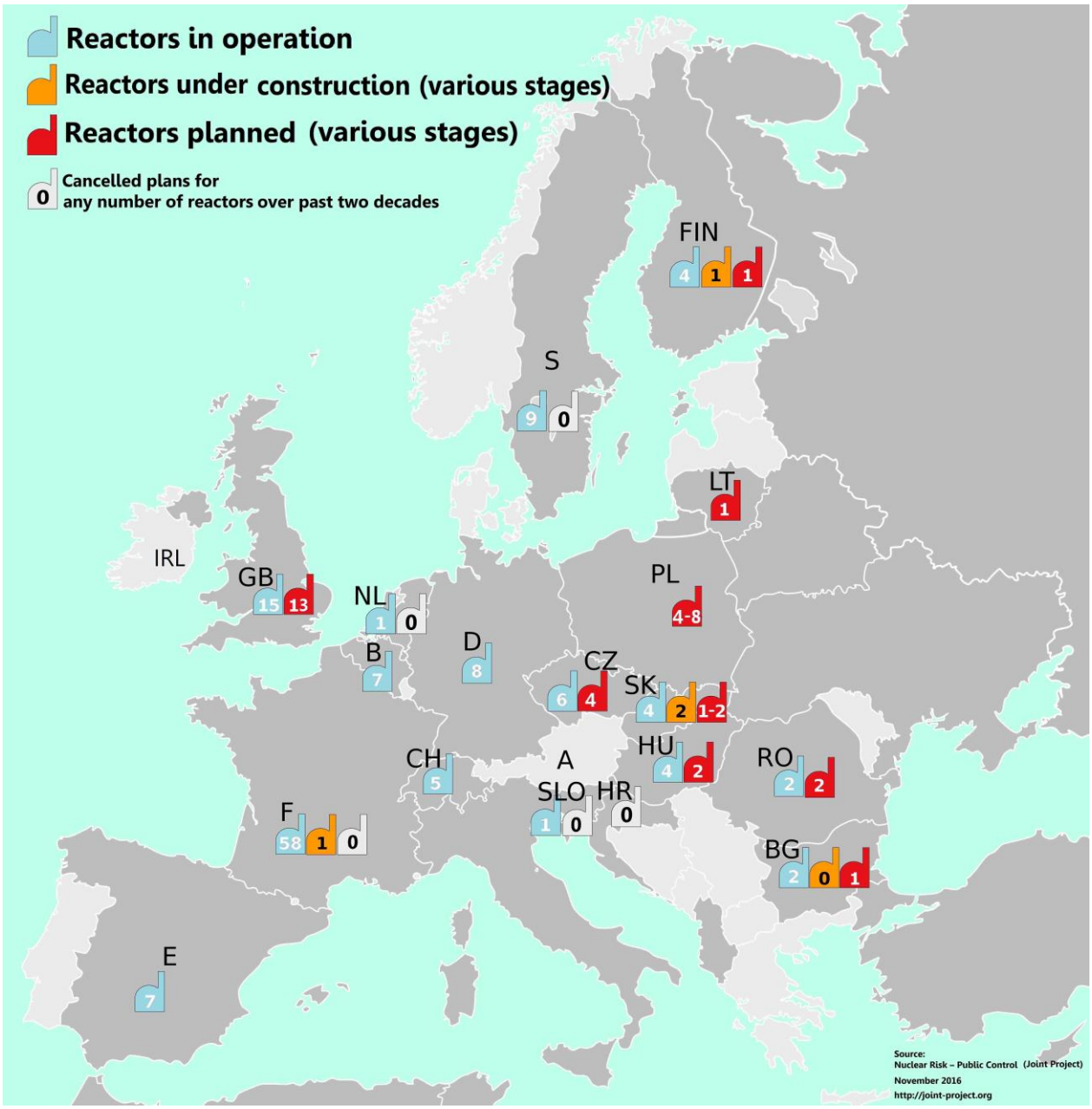
Sizewell 3,200 MW

Wylfa 2,700 MW

Bradwell 2,000 MW

This DECC map shows the sites for new NPPs under consideration; the right column mentions only reactor projects, which reached a minimum level of planning.

Rest of the EU, including all the currently planned NPPs:



CZ: 4 reactors, 4,000 – 5,000 MW
SK: 2 reactors, 2,000 – 3,200 MW
RO: 2 reactors, 1,400 MW
PL: 4 to 8 reactors, ca. 6,000 MW
HU: 2 reactors, 2,400 MW
BG: 1 reactor, 1,200 MW
FI: 1 reactor, 1,200 MW
LT: 1 reactor, 1,350 MW

While the total of up to 19,000 MW of planned installed nuclear energy capacity across the entire EU (plus additional 17,000 MW, if the UK's maximum new build scenario is to be taken into account) does not seem so much at a first glance, in some of those countries nuclear power would reach a share of up to 60 percent of installed electric output, which would be state-controlled and subsidized to a large extent.

March 2017, Nuclear Risk & Public Control - The Joint Project: http://joint-project.org/

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