Spotlight on Parliaments in Europe

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Civil nuclear power policy after Fukushima

Germany is the only EU Member State that has officially changed its policy concerning the civil use of nuclear power after the Fukushima's events. Lithuania, after holding a non-binding referendum, has de facto frozen plans for a new nuclear plant.

On 11 March 2011, a severe earthquake and the tsunami that followed caused serious damage to several Japanese nuclear power plants and to the Fukushima Daiichi nuclear power plant in particular. Following that, the European Council of 24/25 March, 2011, requested that the safety of all EU nuclear power plants (NPP) should be reviewed, on the basis of a comprehensive and transparent risk and safety assessment (so called stress tests).

Over four years later, the German Bundestag submitted a request to the ECPRD network (request 3020 of 8 January, 2016) aiming at an evaluation of how the events at Fukushima had influenced the national policies on the civil use of nuclear energy among the EU Member States. What follows is a summary of the replies by the national Parliaments.

Germany: On the day of the Fukushima's accidents a crisis unit was set up by the Germany's Federal Ministry for the Environment to keep the population of Germany informed about events in Japan and their impact, to prevent the import of potentially contaminated foodstuffs and products, and to ensure that German citizens currently in Japan were protected from any radiological effects arising from the accident. On 14th March 2011, in the light of events in Japan, the federal government and the prime ministers of the five Länder with nuclear power plant sites decided to review the safety of all German nuclear power plants. Concurrent with the work of the RSK, the federal government convened the Ethics Commission for a Safe Energy Supply at the beginning of April 2011 with the aim of establishing a public consensus on future energy supply and discussing the risks of using nuclear energy. Following the events at the Fukushima Daiichi nuclear power plant the framework conditions to phase out nuclear power for the commercial generation of electricity in Germany were further specified by the 13th Act amending the Atomic Energy Act which entered into force in August 2011. With the amended Atomic Energy Act entering into force, eight nuclear power plants immediately forfeited their operating licenses. The operating licences for the three newest facilities will expire by 2022 at the latest; for all other nuclear power plants, expiry will be gradual in compliance with the deadlines 2015/2017/2019/2021.

Lithuania: In a non-binding referendum held in Lithuania in October 2012 over 60% of participants voted against construction of a new nuclear power plant at Visaginas NPP located next to the Soviet-era Ignalina plant. As a consequence, the Seimas adopted the resolution in December 2012 where it was proposed to the Government to develop a new energy strategy on economically optimal and consumer friendly electricity supply; a working group for the review of National Energy Independence Strategy was set up. In May 2013, Prime Ministers of the Baltic States made a conclusion that the decision on Visaginas NPP project could be taken after all potential investors were assured of the project's commercial viability. In March 2014, seven parliamentary parties signed a broad agreement expressing consensus on the country's security policy to 2020, including energy security. The agreement identifies energy dependence as one of the greatest challenges to national security. There is currently no estimate of when construction may begin. Also the NordBalt submarine power cable between Lithuania and Sweden, which started functioning at the beginning of 2016, casts some doubts on whether Lithuania still needs a nuclear power plant.

Belgium: As far as the national civil nuclear policy is concerned the answer from the House of Representatives refers to the Federal Government Agreement of 9 October 2014, where no mention is made to the Fukushima events. Belgium carried out the Stress Tests that were requested by the European Council of 24 and 25 March 2011. With regards to the pursuit of the civil use of nuclear power, the Belgian government confirmed its intention to maintain the present national policy.

Czech Republic: Immediately after the disaster in Fukushima the State Office for Nuclear Safety appointed a group of experts to evaluate the situation based on the analysis of reports received from Japan and ensure communication and objective informing of the public. No special measures were taken by the Czech government. The Stress tests of Czech nuclear power plants NPP Temelín and NPP Dukovany were carried out within the European stress tests (required by European Council). Although the country has no definite construction plans for nuclear power stations since the Fukushima, and although the plan for construction of a new nuclear unit at the NPP Temelín was stopped following the evolution of prices of the energy at the markets, the Czech government counts with the building of the new nuclear units of the NPP Temelín eventually NPP Dukovany in the future. Nuclear power is expected to be the main source of electricity production with its share between 46% and 58% in 2040.

Finland: Finland executed its own stress tests after Fukushima and participated in EU stress tests for nuclear facilities. The energy policy of Finland was not changed. The country confirmed its support for the civil use of nuclear energy and several plants and other nuclear facilities have been planned and approved after the Fukushima's accident. Namely a political decision for Fennovoima's Hanhikivi 1 was made in September 2014 by the Finnish Government and later that year approved by the Parliament. The Russian Pressurized Water Reactor AES-2006 is planned to be commissioned in 2024. TVO's Olkiluoto 3 EPR by the French Areva is planned to be commissioned in 2018. Olkiluoto 4 project was terminated by TVO in 2015. Late last year also the first disposal facility for the spent nuclear fuel in the world got a construction license by the Government and the operation should start early 2020's for this Posiva's Onkalo facility.

France: In France, the choice of nuclear energy was not questioned, for reasons of energy independence and the fight against the emission of greenhouse gases. The response of the then French government to the events in Fukushima was to ensure the safety of nuclear power stations in operation. Thus the Nuclear Safety Authority (ASN) conducted an audit of French nuclear installations, called "complementary safety assessment." This audit focused on the risk of flooding, earthquake, loss of electrical power and loss of the cooling system as well as the operational management of accident situations. A wide parliamentary debate has supported the adoption, on 17 August 2015, of Law No. 2015-992 on "energy transition to green growth." The debate revealed a solid consensus among the main French political parties on the need to maintain the production of nuclear electricity at a high level on the medium to long term. The issue of the closure of the Fessenheim nuclear power plant in Alsace, the oldest French nuclear fleet, is pending for several years. It now seems likely that the government will not make a final decision on this before the start of the Flamanville EPR reactor, planned for the end of 2018.

Hungary: After the Fukushima accident, upon the request of the Council of the EU, a comprehensive safety reassessment was performed. The government confirmed its support for the civil use of nuclear energy and approved the project call Paks II. The Government of Hungary and the Government of the Russian Federation signed an international agreement on cooperation in the peaceful use of nuclear energy, in particular on the cooperation in sustaining and extending the existing circa 2GW nuclear power generation capacity close to the City of Paks, The project was due to begin in 2015 but was postponed to 2018. "The project is seen by the government as an important contribution to the improvement of security of supply, to the achievement of climate protection goals and to maintaining affordable energy prices without any guaranteed feed-in tariffs or other state subsidies."

Netherlands: After the Fukushima disaster, it was stressed that the Dutch nuclear power plant at Borssele was up to the latest safety standards. Not long after the Fukushima disaster, the European Commission decided that all European nuclear power plants were to be subjected to a complementary safety analysis (CSA, also called stress test). In addition to the specifications as formulated in the CSA, the Dutch stress test also included the analysis of human induced events, such as ship wreck, explosions and airplane crash. The Netherlands applied similar stress tests to all nuclear installations in the Netherlands: nuclear installations in Petten (High Flux and Low Flux Research Reactors); Research Reactor of the Technical University in Delft; the central radioactive waste storage facilities of COVRA in Nieuwdorp and the uranium enrichment factory of Urenco in Almelo. The Fukushima disaster did not change the Dutch policy regarding nuclear energy. This is still seen as a logical option for a transition towards sustainable energy and CO_2 reduction. The Dutch government neither encourages nor discourages the construction of a new nuclear power plant.

Romania: Following the Fukushima Daiichi accident occurred in March 2011, the Romanian authorities and the nuclear industry have started to perform reassessments of nuclear safety and emergency preparedness arrangements and to implement improvements, in line with the international efforts in this direction. The safety reassessments conducted in response to the Fukushima accident included the "stress tests" review required by the European Council for all the European nuclear power plants, in compliance with the specifications and criteria issued by the European Commission. Romania has one nuclear power plant, Cernavoda NPP, with two units in operation, which started commercial operation on the 2nd of December 1996 and on the 1st of November 2007, respectively. The Romanian Government has plans to further increase nuclear generating capacity through completion of the project of Units 3 and 4 of the Cernavoda NPP.

Slovakia: Following the disaster at Fukushima and the decisions taken by the European Council, Slovakia carried out a series of Stress tests of the Slovak NPPs, which included NPP Bohunice V-2, NPP Mochovce 1&2 and NPP Mochovce 3&4. The tests were carried out mostly in a form of engineering analyses, calculations and reports. The Government Programme Declaration from 2012 and the updated Energy Policy of the Slovak Republic from 2014 reaffirmed the irreplaceable role of nuclear energy in the energy mix of the Slovak Republic. The Energy policy of the SR still counts with the construction of new nuclear source planned to build in Jaslovske Bohunice site.

Slovenia: One of the first actions of the Slovenian authorities was the administrative decision by the Slovenian Nuclear Safety Administration (SNSA), which required the Krško NPP (Slovenia only nuclear power plant) to perform the Extraordinary Safety Review. The second post Fukushima administrative decision was issued in September 2011, which required the plant to perform the analysis of possible severe accident management improvements and to prepare the Safety Upgrade Program (SUP) for the implementation of these improvements. The third administrative decision was issued in January 2012, which required the plant to perform a revision of basis for the national Radiological Emergency Response Plant. Based on the Stress test and National Action Plan (NAcP) processes several improvements have been already implemented. Slovenia has no definite construction plans for nuclear power stations. This is not linked to the nuclear accident in Fukushima, but rather linked to the long-term planning of the energy policy. The country is in the process of determining its energy strategy for the next 20 years with the view for 40 years. The question of nuclear energy will also be determined. A decision for the extension of the life-time for the existing NPP has been adopted and, assuming that PSR are successful, the existing NPP will operate until 2043.

Spain: After the Fukushima accident, Spain conducted the Stress Tests that the European Union decided to launch on the 143 nuclear reactors operating in the EU. The improvements needed will be made in several stages, depending on their technical specifications and the required implementation time. Short term improvements were realized between June and December 2012. Medium term modification, to incorporate a second block of design modifications took place between 2013 and 2014.

Spain foresees to complete the full improvements programme, including new developments and design modifications involving new building work or changes to existing systems in 2016. Although the country does not plan the construction of new nuclear plants, it confirmed its intention to pursue the current nuclear energy policy.

Sweden: Following the accidents in Fukushima Dai-ichi, Sweden conducted the series of Stress Tests that the European Council requested to be performed on all European nuclear power plants. No changes have been made due to the accidents in Fukushima Dai-ichi. The phase-out of four nuclear power units which was announced during last year, i.e. 2015, was due to economic reasons. Sweden has 10 units in operation. However, the Swedish nuclear industry took recently decisions to phase-out four of the units prematurely for economic reasons. Otherwise the government intends to pursue its current nuclear energy policy.

United-Kingdom: The Fukushima disaster in March 2011 prompted a re-examination of nuclear power, particularly from the standpoint of safety. the then Secretary of State, Chris Huhne, commissioned a report from the Chief Nuclear Inspector, Dr Mike Weightman. His final report was published in October 2011. On 30 June 2015, the Minister of State (Andrea Leadsom) gave a speech during which she referred to plans for new nuclear build.

The following Member States do not have nuclear plants on their territory.

Austria, Cyprus Denmark[1], Estonia, Greece, Ireland[2], Latvia, Luxembourg[3], Poland[4] Portugal**.**

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[1] The reply announced that the Danish government planned to propose two bills regarding safety and export of uranium mined in Greenland.
[2] The reply refers to measures taken by the Radiological Protection Institute of Ireland concerning the frequency with which it sampled rainwater and air and the frequency of cows' milk sampling. The Food safety Authority of Ireland), in line with European Union measures to limit possible risks to food safety, adopted controls on imports of food and feed from certain localities in Japan.
[3] The reply from the Chambre des Députés stresses that the Grand Duchy of Luxembourg is not in favour of nuclear power and favours renewable energies.
[4] The reply by the Polish Sejm refers the creation of an emergency team by the Government Centre for Security (Rzadowe Centrum Bezpieczenstwa) and the National Atomic Energy Agency (Panstwowa Agencja Atomistyki) that started its operation immediately after the accident. Fukushima accident had not altered Polish nuclear energy development programme. At the moment there are no operating nuclear energy units in Poland (apart from a small reactor used for scientific purpose). However there are plans to build several nuclear units. The first nuclear plant may be put in place around 2025. The main rationale for the programme is a need to diversify Polish energy mix.