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"NUCLEAR RENAISSANCE" IN ITALY

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Prof.ssa Laura AMMANNATI

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1. LEGISLATIVE CONTEXT

The Italian programme to restart the way towards energy production from nuclear source (the so called "Nuclear Renaissance") has been framed into a broad rethinking about the nuclear energy experience at European level. This renewed interest is justified even by the need of reducing the CO2 emissions in the air and of having a more balanced energy mix by 2020. Nuclear energy, like renewable energies, can help to achieve this goal (see also the European proposals about energy policy of 2007, the new nuclear power plants under construction in Finland and France, the running debates in UK as well as in Germany and Sweden).

In Italy the first legislative step on this track was Law No. 99 of 23 July 2009 which lays down milestones of the new regulatory framework concerning nuclear power (Article 25 "delegating tasks to the Government in the nuclear field" which allows the government to issue one or more implementing decrees providing i)rules for the siting of nuclear power plants, of spent fuel and radioactive waste temporary storage facilities and of the final repository for waste, ii) the requirements regarding the licensing procedure for the construction, operation and dismantling of those plants and iii) the compensation to be paid to the populations living in the proximity of the sites; Article 26 entitles the Interdepartmental Committee for Economic Planning (CIPE) to issue two implementing decisions defining i) the typology of nuclear reactors and power facilities which are to be located in our country and ii) the measures to be adopted in order to promote the creation of consortia for the construction and operation of nuclear power plants) and the principles for the establishment of the "Nuclear Safety Agency" which represents the regulatory body of the sector (Article 29).

According to the delegation, the government approved the Legislative Decree No. 31 of 15 February 2010 (hereinafter "decree") which sets out rules for the siting, construction and operation on the national territory of nuclear power plants, nuclear fuel fabrication facilities, storage systems for spent fuel and radioactive waste, as well as compensatory measures and public information campaigns. This decree was approved within the time limit required by the law, i.e. mid-February and it entered into force on 23 March 2010.

The decree has a really complex structure as it includes a wide range of norms in order to regulate all legal key aspects of the nuclear field. Nevertheless it does not conclusively regulate many elements whose solution is differed to further ministerial regulations of the Economic Development Ministry, in cooperation with other Ministries. Choosing this kind of legislative system "in stages" causes uncertainty in respecting fixed time limits and in defining the content.

2. MAIN ELEMENTS OF THE REGULATORY FRAMEWORK

There are three milestones of regulation of nuclear power as depicted in the decree: 1) the "Nuclear Strategy" which is a programmatic preliminary document worked out by the government. It includes strategic goals such as international alliances necessary for a rapid reduction of our technological gap, the capacity required and the time limits for construction and operation of facilities and moreover instructions regarding the temporary and long-term management of radioactive waste (about this point see the recent proposal of European directive of 3 November 2010); 2) the specification of the sites as potential locations of nuclear power plants, the so called "eligible sites"; 3)the definition of requirements for nuclear operators in charge of operating a new nuclear plant.

The "Nuclear Strategy" represents the real starting programme of returning to nuclear power and is placed in continuity, as an integral part, with the "National Energy Strategy" foreseen by Law No. 133/2008 as a tool of shaping the national energy policy. However neither this document nor the Nuclear Strategy which should have been defined within three months after the approval of decree No. 31 exist yet.

Among the preliminary steps following the definition of the Nuclear Strategy the procedure aimed at defining the sites for the construction of power plants plays a key role. This point is, as presumable, extremely delicate. But the decree only shapes a series of "technical criterion" that have to be assessed and developed in to a scheme of standards brought forward by the Nuclear Safety Agency and defined by the Economic Development Ministry in cooperation with the Ministry of Infrastructures and the Ministry of the Environment. Subsequently the scheme is subjected to public consultation where regions, local administrations and bodies characterised by qualified interests take part. The final draft approved with a ministerial decree along with the Nuclear Strategy is subjected to strategic environmental assessment (SEA). After which the emerging comments could influence retroactively the documents subjected to the SEA which in that case would be modified correspondingly.

The procedure is structured in a really complex way and foresees the interested populations' involvement. This step is essential in order to obtain wide and deep social consensus not only because of the construction of infrastructures characterised by high environmental impact but especially in case of production of nuclear energy that is socially not well accepted. However the scheme does not encompass the precise indication of the eligible sites because only potential operators must indicate one or more sites as the location for a nuclear power plant when they submit the application for the certification.

A further essential element in the regulatory framework is the definition of the requirements that operators have to meet. What is to be highlighted is that the operators' requirements are the same even when operators are organised as consortia. The whole set of these requirements qualifies identity and structure of the potential operator. Actually, first of all, the submission of the "intervention programme" and, consequently, the application for the certification of the site and then the application for the "single licence" foresees that operators meet the requirements concerning many areas (providing suitable human and financial resources as well as technical and professional capabilities; ability in managing the activities relating to the planning, construction and operation of nuclear power plants and the storage and management of radioactive waste; and, more in general, availability of organisational structures necessary to set up and manage the licensing procedure and the activities concerning safety and radioprotection).

Nevertheless a more detailed description of those requirements is differed to a decree of the Economic Development Ministry which should be issued within 30 days after CIPE has approved one of the two implementing decisions foreseen by law No. 99. Regarding this step that is constitutive of the whole licensing procedure no deadline for the approval is given by the law itself.

The requirements necessary in defining operators should not hinder promoting cooperative patterns (consortia) as showed by the well-established Finnish experience. However it seems necessary that the operator, even if in cooperative form, must be equipped with all the necessary capabilities from the time he submitted the "intervention programme" to the Economic Development Ministry. Said programme represents the

starting document of the procedure. The certification that operators meet the established requirements will be released together with the single licence by the Economic Development Ministry.

3. SPECIFIC RISKS OF THE NUCLEAR SECTOR

According to established legal and economic literature the nuclear sector is characterised by specific risks which especially are: i) market risks connected with the unpredictability of energy prices; ii) operation and performance risks reliant, in a liberalised market, on the technological adequacy; iii) risks connected with construction (as the events concerning the construction of the Finnish power plant in Olkiluoto demonstrates) ; iv) regulatory risks regarding modifications and interventions required by regulatory authorities aimed at increasing safety which can influence the project profitability and delay the operation of the power plants; and lastly the political risk that is the most pernicious as it is influenced by social consensus for nuclear power.

Regarding "regulatory risks", article 17 of decree No. 31 foresees that, within 60 days after being put into force, an implementing decree should be approved by the Economic Development Ministry, in cooperation with the Ministry of Economics and Finance. The ministerial decree should define some instruments of financial and insurance coverage "against risks of delayed time limits for construction and operation of power plants" caused by events independent from operators, excluding risks stemming from contracts with suppliers.

Therefore the kind of risks which we are referring to does not concern potential delays caused by excessive length of administrative procedures, but only delays eventually occurring between the assignment of the single licence and the operation of the power plant (for instance, either delays linked to the supervisory activities of the construction or to the rise of legal arguments - not referring to supply contracts - or the change of technical standards on ongoing projects).

The political risk is much more insidious because, on the one side, citizens always have the opportunity to block the production of nuclear energy by means of a referendum and, on the other side, there are no legal instruments which can constrain the succeeding parliaments and governments to comply with previous legislative choices and political decisions. Regarding this point a first attempt to hinder the new start of the nuclear sector in Italy by means of a referendum is ongoing. Just on 12 January 2011 the Constitutional Court ruling established the legitimacy of the referendum questions.

4. SITE CERTIFICATION AND "SINGLE LICENCE" PROCEDURE

Title 2 of decree No. 31 which includes the disposals regarding the integrated licensing procedure states that the construction and operation of nuclear power plants are activities of compelling state interest. Therefore such activities are subjected to the integrated licensing which is granted, on operator's instance and with the prior approval of the Unified Conference of regions, state and local Authorities, by ministerial decree of the Economic Development Ministry in cooperation with the Ministry of the Environment and the Ministry of Infrastructure.

The new licensing procedure for the siting, construction and operation of nuclear power plants is structured in two fundamental phases: the first regards the site certification; the second and subsequent regards the single licence procedure for construction and operation of the power plant and the final certification of the operator. Indeed this one, as holder of the license, is in charge of the safety controls and radio protection as well as of the management of radioactive waste and nuclear fuel while the power plant is in function.

The site certification procedure will be carried out by the Nuclear Safety Agency. Starting from the operators' application regarding one or more sites the Agency will carry out the technical assessment and, if this preliminary investigation is successful, will issue the certification for each proposed site within a time limit of 120 days. At the same time the Agency will forward the certification to the Economic Development Ministry, the Ministry of the Environment and the Ministry of Infrastructures. Afterwards the certification will be

submitted to the region where the site is located in order to obtain its agreement on the base of a prior approval of the municipality concerned.

Lacking the agreement the procedure foresees the intervention of an Inter-institutional Committee formed by representatives of the three ministries mentioned above, the region and the municipality involved. In case of disagreement the final decision is entrusted to the Council of Ministers where the president of the region concerned takes part.

Downstream of this procedure the decree foresees also the agreement of the Unified Conference on the list of certified sites. If the Conference does not decide within two months, the final decision will be taken by the Council of Ministers. On this base the Economic Development Ministry in cooperation with the Ministry of the Environment and the Ministry of Infrastructures adopts the decree of approval of the list of certified sites.

At this stage of the integrated procedure, for each certified site the operator concerned must submit the application for a licence for construction and operation of the nuclear power plant and for the final certification of himself as operator within 24 months after the issue of the decree.

The disposal regarding this phase of the procedure provides that the Agency carries out the preliminary technical assessment and reports its binding opinion within 12 months to the Economic Development Ministry which calls a so-called “services conference” involving the Agency, the ministries and the region and the local Authorities concerned and all the other administrations and parties involved in order to obtain all necessary opinions and agreements. If a local authority does not allow the necessary agreement to be reached, the Council of Ministers shall replace the agreement with the local authority involved by decree.

5. NATIONAL WASTE REPOSITORY AND TECHNOLOGY PARK

The decree dedicates a specific title to "procedures for the siting, construction and operation of the national waste repository for the permanent disposal of radioactive waste, the technology park and the associated compensatory measures".

Article 26 of this decree puts Sogin – a state owned company separated from Enel when the former energy monopolist was privatised and already responsible for waste management and decommissioning of the nuclear power plants operating before the antinuclear referendum in 1987 - in charge of decommissioning of the new plants at the end of their life cycle and for the safe storage of waste and spent fuel. Moreover Sogin has the duty to construct and operate the national repository and a related technology park which will be characterised by an integrated system of scientific research, operational work and technology development regarding the management of radioactive waste and spent fuel.

The licensing procedure for the siting, construction and operation of the national waste repository is similar to that foreseen for new nuclear power plants.

Furthermore the decree requires the creation of a fund targeted at ensuring the necessary funds for the decommissioning of the plants at the end of their life time. At the same time it establishes the financial responsibility of operators and provides that the fund has to be managed in a transparent way by a dedicated body which is independent from the contributors of the fund. The fund is fed by the single licence holders' annual contribution. The organisation in charge is a public body called State Equalisation Fund for the Electricity Industry. And the amount of the contribution is fixed by the Electricity and Gas Authority (AEEG, the Italian energy regulator), on the basis of a proposal of Sogin (the public company mentioned above) and on the advice of the Agency.

6. THE NUCLEAR SAFETY AGENCY

The Nuclear Safety Agency is established and organised by Law No. 99 of 2009 (article 29). Its charter was approved, with a significant delay, in April 2010 rather than mid-November 2009 as foreseen and finally published at the beginning of July roughly at

the same time as the decree (No. 105 of 8 July 2010) which modified the incompatibility regime regarding the appointment of the president and the members of the board who have been appointed recently and are now under scrutiny of the parliamentary commissions concerned.

Apart from several critical comments about this regulatory Agency still "on paper", highlighting its potential role in the nuclear system could be in some ways interesting. Actually the Agency has been empowered to manage many fundamental activities. Summarising they are as follows:

(1) powers concerning both technical regulation such as setting general standards and prescriptions relating to single power plants and administrative regulation (licences, authorizations, certifications and so on)

(2) investigation and supervisory powers especially aimed at guaranteeing safety, health and the environment

(3) sanctioning powers strictly connected with the exercise of supervision up to the eventual interruption of the activities and further to the proposal to revoke the licence by the same administration that issued it

(4) powers concerning information activities for the public also by means of reports and inquiries.

The relevant role of the Agency is evident in all steps concerning site certifications, control on the individual requirements of operators, supervision on the technical standards of power plants up to the definition of the binding opinion concerning construction and operation licensing. Furthermore the Agency is the body which must guarantee, at each level and within the different procedures, the safety standards established by the international and supranational authorities.