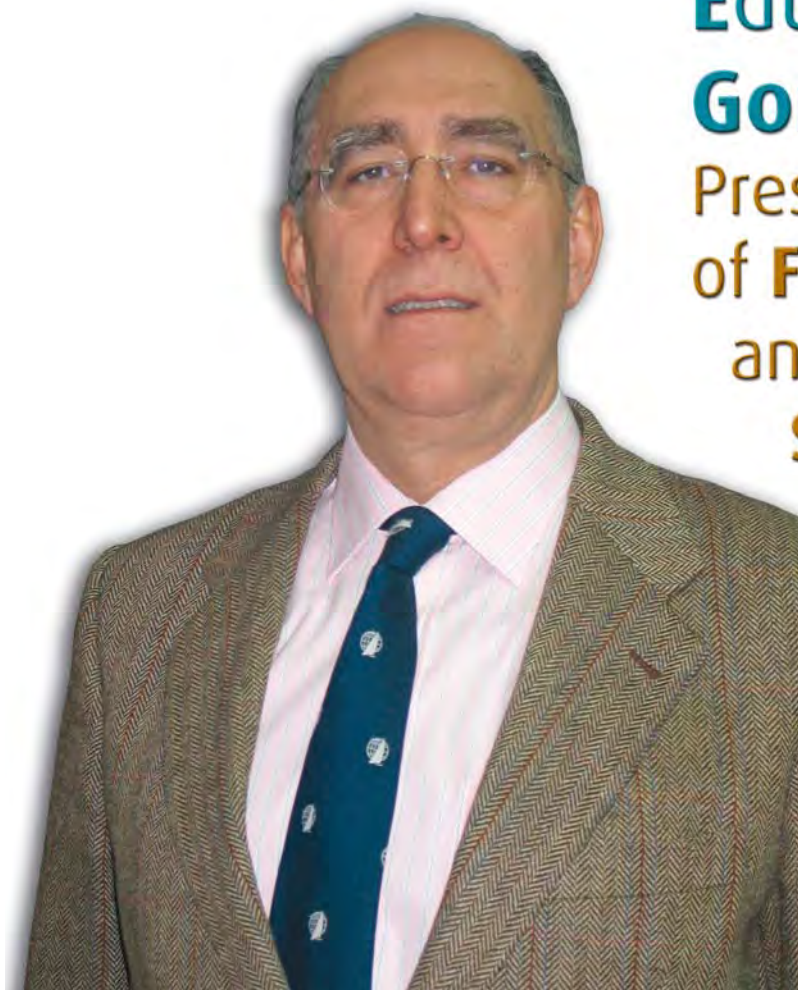




Eduardo González Gómez

President of **FORATOM** and the **Spanish Nuclear Industry Forum**

Eduardo González graduated in Industrial Engineering from Madrid's Polytechnic University and furthered his studies in Nuclear Safety in the Massachusetts Institute of Technology. He began his professional career in the telecommunications and energy sectors. In 1983, he was appointed director of the Consejo de Seguridad Nuclear and subsequently board member and vice president.

In the international arena, he has been a member of the United Nations Committee for Nuclear Safety (INSAG), chairman of the Committee of Nuclear Energy Regulatory Bodies in the OECD, and vice chairman of the Technical Scientific Committee of EURATOM. In 1995, he became head of Institutional Relations in Iberdrola, and in 1999 he was appointed general director of the Almaraz and Trillo nuclear power plants. At present, he serves as assistant director to the General Generation Management of Iberdrola and is president of FORATOM (European Nuclear Industry Association) and president of the Spanish Nuclear Industry Forum. He is an independent adviser to the Nuclear Safety Committee of British Energy and a member of the Monitoring Committee of the EURATOM Uranium Supply Agency.

Eduardo González sums up the situation of nuclear energy in Spain and the European Union, as well as in USA and Asia. The new Finnish power plant, European public opinion and the near future of nuclear energy around the world are some of the issues analyzed by the president of FORATOM in this interview.

ENS-FORATOM. UNIFIED MANAGEMENT

Eduardo González provides a brief history of the nuclear sector by saying that “nuclear development in Europe in the decade of the 1990s experienced a considerable decline, which meant less business for the organizations in the nuclear field and had a great impact on the professional nuclear societies. Therefore, agreements were reached whereby the professional organizations and industry would collaborate in management but at the same time maintain their independence”.

Within Europe, it was agreed that FORATOM and the European Nuclear Society would share an office and that the general secretary of FORATOM would also be general secretary of the European Nuclear Society. “The objective was to find a mechanism for collaboration between both systems”.

The new operating framework, through unified management of the ENS and FORATOM, has resulted in the organization of two major meetings: the ENS (European Nuclear Assembly) and the ENC (European Nuclear Conference), each of which is held on a biennial basis in alternating years. The purpose of the ENA, which was held for the first time last December, is “to become, every two years, the European forum for nuclear power. It is held in Brussels because that is where consolidation of the European Union is taking place and because the meeting is of a political, social and economic nature”. The ENC, on the other hand, is of a technical nature; the

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first meeting will be held in Paris in December of 2005.

Of note is the “Declaration on energy use in the European Union”, which was signed by the European industry’s most representative firms during the first ENA meeting. In this respect, Eduardo González says that “it is an example of the relevance that nuclear power is acquiring. It was necessary to take this step and remind people that this technology is useful for Europe. In fact, the reality of energy is what has motivated this document. The Declaration embodies the importance of nuclear power in the present and the future, and thus it is acknowledged by the signatories”.

There is no question about the importance of these international forums. For this reason, Eduardo González, from the pages of *Nuclear España*, encourages companies in the Spanish sector to become more involved in the international energy arena. “It is necessary for our companies to take part in

European activities, within the Framework Research Program, to enter into cooperation agreements between national and European enterprises, to be present in industry trade fairs and exhibits, and to encourage their technicians to have international contacts. If

we are to further the success of the Spanish nuclear program, we must succeed in

maintaining our capacity on an international scale”, he adds.

SOCIETY AND NUCLEAR ENERGY

According to Eduardo González, it is a reality that “society is becoming aware that it is not advisable to do without nuclear energy. Furthermore, progress has been made in improving the operation of nuclear power plants; in fact their availability has improved, as well as their safety indicators”. There are more than 430 operating reactors around the world and another thirty are being built, which is about 10%. “Most of them are located in Asia, but Europe has a good ranking thanks to countries such as Romania, Bulgaria and Russia, among others. The contribution of nuclear energy to electric power production worldwide has continued to grow at an annual accumulative rate of around 2%”.

With regard to questions in previous years about the safety of nuclear power plants, González thinks that “progress has been made in this area, because the certainty exists that this source can be safely used and that techniques can be applied to industrial development of waste treatment. Thanks to these two factors, we can predict today a resurgence of nuclear power”.

Some countries have taken giant steps in this respect. González cites the case of Finland, “which has reached the conclusion that a nuclear power plant guarantees the energy independence it needs for autonomy”. The three main reasons are: reduced CO₂ emissions; a guarantee of independence of gas, oil and electricity suppliers from neighboring countries; and furthermore it has managed to involve more than sixty organizations in this project, including electric utilities, distributors and consumers. “The financial risk is redistributed and a stable long-term price is ensured”.

As for the evolution of public opinion in other European countries, Eduardo González mentions some that have shown themselves to be more inclined towards nuclear energy. “Sweden has evolved towards a favorable position; Belgium is not opposed and the new Government does not follow the leanings of the previous government, which was more reticent about this type of energy; in Germany, although the ecologists have called for the plants to close in forty years, the situation is not negative; and France has supported a new reactor because French public opinion is still convinced of the need”.



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According to González, “these positions reveal a dynamic that will become consolidated over the years, because of the environmental problems caused by the use of fossil fuels and the economic implications of the development of countries such as China and India, as well as the growing demand for raw materials”. The president of FORATOM predicts a growing demand for electricity, which means that technologies that do not require the use of raw materials will increase in value, because market globalization will tend to push fuel prices up. “The Kyoto Protocol is going to be only the beginning of a series of energy policies”.

NUCLEAR ENERGY AROUND THE WORLD

Outside the European Union's supranational borders, González summarizes the energy situation in several countries. “The U.S. has been discussing nuclear power for some time and it wants to solve the waste problem. What is happening is that the U.S. plants are improving their performance in a spectacular way and, therefore, new investment in electric power production facilities is not as necessary. On its part, China has major pollution problems and is opting for nuclear development. The same is true of India and Japan, which have a huge stake in nuclear energy”.

Faced with the challenge that Union enlargement represents for Europe, the president of FORATOM thinks that, from a technological point of view, this new situation will allow the market to grow and will also promote increased standardization of plant models and safety requirements. “Eastern Europe does not have many natural energy resources and it has experienced less growth than in Western Europe, and therefore a faster upswing is expected in

the years to come. There is a space for development of technologies and investments, both on a general scale and also in the nuclear arena”.

The EU countries have developed certain capabilities that have led to the TACIS and PHARE Programs, and this has had positive repercussions on homologation and development in the sector. “Globalization of the sector and Generation IV will be the issues of the future”.

THE SPANISH REALITY

Eduardo González says with satisfaction that “although Spain is a small country, it maintains its nuclear capabilities”. He acknowledges that it is paradoxical that the country's different governments have held critical opinions about nuclear energy and at the same time the technological capabilities have been maintained by competitive companies. “No drastic decisions have been made, which shows that the need of phasing out nuclear power in Spain has never been very clear”.

“There is a conviction that, as long as nuclear power plants are safe, there is no reason why they should not operate because they supply energy at a competitive price, allowing the electric system to be developed on the basis of other sources and at the same time maintaining a great capacity for generating *cash flow for the owners*”.

“Nuclear energy must be considered as an alternative, because the operating nuclear reactors in Spain account for savings of some 60 million tons of CO₂ emissions to the atmosphere which would not be avoided if electric power were produced with the rest of the Spanish mix”, he explains.

In the General Emissions Assignment Plan, 78 million tons a year are attributed to the electric sector. “If we did not have the nuclear plants, almost double that amount would have to be assigned. Our operating and maintenance costs are fully competitive. The Spanish economy is competitive, among other things, because of the low price of electric power, which in turn is achieved in the mid- and long-term with nuclear power. Therefore, the competitiveness of our industry in general depends on the use of this energy source”.

González adds that “if there were an overall system of energy development, nuclear could be an element of that system because we are a crucial part”. Spain's share of the international nuclear system is between 2 and 4 percent, “which implies considerable tech-

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nological and productive development. Nuclear power is a high added value business and it is necessary to debate its continuity and to consider its advantages and drawbacks, always from the perspective of safety and waste treatment”, says the president of FORATOM..

ENERGY DEBATE AND PACT OF STATE

The future energy scenario will depend on the actual needs related to mid- and long-term investments. However, investors should be able to count on a situation of stability to be able to have trust in the future. In this respect, according to Eduardo González, “regardless of the party in government, stability is necessary in the decisions regarding infrastructures. The base energies allow other energies to operate in a competitive market. And this must be clear before an energy pact can be reached, and it is this pact, in turn, that will allow nuclear power to play a role in that energy scenario”.

“The current Government has launched an analysis of the energy issue via the White Paper, the industry is also promoting a debate through the Energy Club and Forum, and large energy consumers are aware that the electric grid supply at competitive prices is very important for them”.

González adds that “it is very important that the money earned from the electricity rate be used in the best way. It is essential that companies be able to make decisions in a setting of stability and that governments will not be hanging *swords of Damocles* over companies because of lack of support. There should be an agreement, which could be defined as a Pact of State, whereby the decisions of one Administration do not overturn those of the previous one, and in this way companies would have a stable framework that would encourage investments. The energy future cannot be subject to current trends because this would negatively impact companies on a global scale”.