

Why Deregulation of Electricity Doesn't Work

by Dr. Paolo Forniciari

Dr. Forniciari is Deputy Chairman of the Italian Nuclear Association, and former Nuclear Activities Director of Italy's state electricity company ENEL. His long career includes responsibility for the design of Italy's nuclear power plants; teaching nuclear reactor control and engineering at Pisa University; participation in many international nuclear organizations; and publication of several technical papers on nuclear energy and energy policy, and a book on what he calls the "nuclear adventure" in Italy, Oil, Atom, and Gas. Recently, he has been in demand by the Italian media for debates and interviews on Italy's first blackout since the aftermath of World War II (1948), and his proposal to reopen Italy's two closed nuclear plants, Caorso and Trino Vercellese. We reprint here edited excerpts from two of his recent articles on energy policy.



In the past few years, the argument was widely circulated in Italy and also in Europe, that if the liberalization and privatization process of the energy sector were completed, it would allow the reduction of energy bills. This was stated by the National Industry Association (Confindustria) at a Conference called "Actions to Compete," held in Parma, Italy, on March 16 and 17, 2001; by Italy's Bank Governor Antonio Fazio; by the Italian European Union Commissioner for Competition Mario Monti; and by Italy's Energy Minister Antonio Marzano, who affirmed, "The reduction of the electricity prices is one of the major objectives I intend to achieve."

The oil crisis in 2000-2001 and the subsequent energy crisis in California, with its several "blackouts," raised doubts about the real benefits achievable through liberalization (deregulation) and privatization of the energy sector in Italy. What happened in California has not been the result of whether ownership of the national energy system is public or private, but of other causes. In the industrial world today, there exist private electric systems—as in Germany and in the United Kingdom—which operate well; and others like the French public monopoly, EDF, that also function very well, and even better.

The negative experiences with deregulation in California

and in Spain should lead us to ponder what is going on.

With the energy sector liberalization, energy bills will not decrease. In Italy, they have increased by 30%. It is not a problem of competition, but of diversification of the energy sources: Should we generate electricity by burning oil or natural gas, the more costly energy sources whose prices have doubled, or even tripled, in the past few years? Or should we follow the other nations which use nuclear and coal, and generate electricity at a much lower cost. Whether the ownership of a power plant is a public monopoly or a private investor makes no difference. What we really need is "diversification" of the energy sources, rather than "liberalization" of the energy sector: We need to immediately use more coal and, in the future, go back to nuclear energy.

It is worthwhile to remember that after the 1973 oil crisis (following the Yom Kippur War), all the industrial nations, except Italy, substituted nuclear or coal in electricity generation, for oil-fired-plants. France went from 45% oil to 2%, Germany from 23% to 1.5%, Sweden from 19% to 3%, Belgium from 78% to 15%. Italy, in contrast, has *increased* its hydrocarbon use in electricity production from 61% to 71%! This is why our household energy bills are double those in France, three times higher than those in Sweden, and 60% higher than the European average, costing us a total of about 8 billion euros.

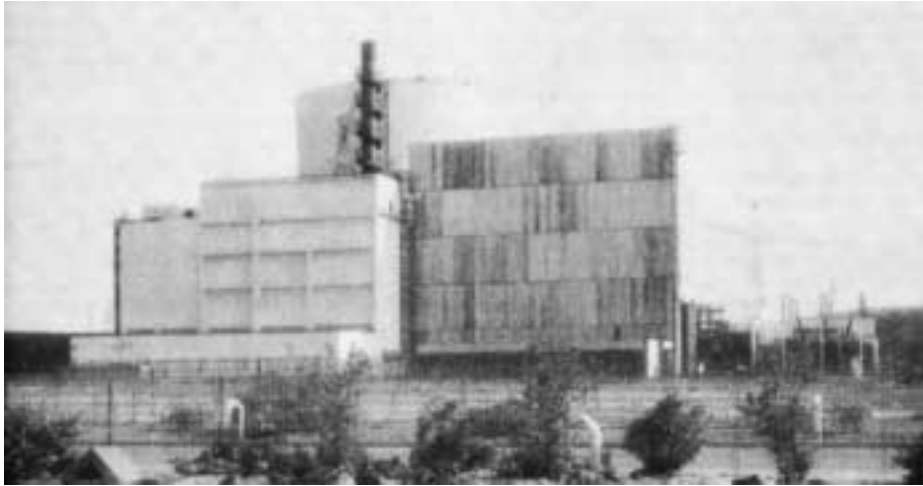
Energy is a very unique commodity: It must be generated at the same time it is requested; it is difficult to store; it requires a long time for the construction of plants and transport lines, with investment up-front and delayed revenue. It is not by chance that the private entrepreneurs after ENEL subdivided the national territory into zones, in order to avoid competing among themselves.

Privatization = Higher Energy Bills

According to the French Economy Minister Laurent Fabius, several privatizations of public companies have led energy bills to increase. The research of the NUS Consulting Group shows that these increases have been 16.5% in Germany, 7.5% in Denmark, 5.6% in South Africa, 2.4% in Spain, and 2.3% in Canada.

Luigi Einaudi, former President of the Italian Republic, used to say, "The operation of public services by the State assures results that are not always valuable in terms of money, but are unquestionable advantages for the civilization of nations." We will need energy, a lot of energy in the future. According to the World Energy Council in its publication "Energy for Tomorrow's World—Acting Now!" (April 2000), world energy demand in the next 20 years shall increase by 50%. In addition, the Council says, "Governments shall shape the energy sectors." In other words, the "Market is an essential mechanism for promoting greater efficiency in the energy sector, but it is not sufficient by itself."

The European Union (EU) proposed at the recent Johannesburg Summit, to increase the contribution of renewable



Scientist Dr. Paolo Forniciari has not only exposed the damage done to Italy by electricity deregulation, but in the wake of the Sept. 28 national blackout has proposed reopening and building nuclear plants—like the Caorso plant, shut down since the post-Chernobyl scares.

energies to 15% by the year 2015, but this proposal was rejected by the United States because of its elevated cost. In the meantime, the European Union Commission, with its deliberation of Nov. 16, 2001, rejected the EU Green Paper titled “Towards a European Strategy for the Security of Energy Supply,” which had defined nuclear energy as “costly, undesirable, and in doubt.”

But, almost no one has the courage to say that nuclear energy is the solution. An exception is Lester Thurow, Nobel Prize winner and chief economist at the Massachusetts Institute of Technology in Boston, who has recently written in the newspaper *USA Today*: “In the case of electricity, we already have a technical solution at hand. It is called nuclear power—a clean way to generate electricity that does not cause global warming.”

U.S. President George W. Bush did not waste any time, announcing his new U.S. Energy Plan, on May 16 at the Convention Center in St Paul, Minnesota, based on the realization that in the next 20 years, 1,300 or perhaps 1,900 new power stations based on coal and nuclear for electricity generation would be needed. This decision by President Bush was shared soon after by United Kingdom Prime Minister Tony Blair.

An energy policy based on coal and nuclear, as compared with that of burning oil and gas along with a small percentage of new renewable energies (those that the U.S. Energy Secretary Spencer Abraham calls “the undiscovered energy sources”), is not only economically competitive, but also environmentally benign.

Without other alternative energy sources, like nuclear, the price of oil and gas will skyrocket in the future to much higher values than those of today, and we will bewail the actual prices.

Former French President François Mitterrand, at the World Energy Council Congress in Cannes (1986), exhorted the industrial nations to “Leave to the Third World countries those energy sources more easy for them to use” (oil).

The concept of social policy has long been the policy of

the Roman Catholic Church. From the “*Rerum Novarum*” (1891) of Pope Leo XIII up to the more recent Encyclicals “*Sollicitudo rei socialis*” (1987) and “*Centesimus Annus*” (1991) from Pope John Paul II one hundred years later, the Church has underlined the problems of the unbearable difference in standards of life between the industrial nations and the developing countries.

Nuclear energy, therefore, has not only economic and environmental benefits, but also includes an ethical value of assuring all the world sustainable development in solidarity and peace.

Economic Competitiveness Among Energy Sources

Two billion people do not have access to any form of commercial energy. One billion do not have drinkable water or electricity available yet; and at a very low energy consumption rate, the human lifetime becomes shorter and infant mortality rates increase. According to the World Energy Council, the world energy demand will increase by 40-50% in the next 20 years, and the electricity demand even more. All the presently known energy sources should be used; and, in particular, nuclear energy, because it is competitive and carbon free, and should not be abandoned for arbitrary political reasons. . . .

The highest growth in nuclear generation is projected for the developing world, where consumption of electricity from nuclear power is projected to increase by 4.1% per year between 2001 and 2025. In particular, developing Asia is expected to see the greatest expansion in new nuclear generating capacity. In the EU, Finland decided to start its fifth nuclear power unit, and France has recently announced its intention to resume work on the new European Pressurized Reactor (EPR), early next year.