

## **NUCLEAR POWER: From the “Great Revival” to the “Great Decline”**

*By Stephane Lhomme, spokesman for the network “Sortir du Nucléaire”*

Much of the media has continued in 2009, as in preceding years, to highlight a supposed “great revival” of nuclear power, announcing the future construction of tens, indeed hundreds of new reactors. However, many projects announced with great fanfare have since been cancelled (far more discreetly), and this phenomenon has accelerated with the world financial crisis.

Here are some examples of cancellation of nuclear projects:

- December 5, 2008, South Africa cancelled the 12 reactors (including several EPRs) that it was claiming it would construct
- March 25, 2009, Tepco (Japan) “put off” the construction of a reactor
- April 23, AmerenUE cancelled an EPR project in Missouri
- June 29, the Canadian province of Ontario cancelled the replacement of two reactors
- June 30, Exelon cancelled a project for two reactors in Texas
- July 22, Russia announces that it is reducing by half its construction projects of nuclear plants
- July 23, Bruce Power cancels the project for six new reactors in Ontario
- August 7, Bulgaria cancels the two reactors planned
- August 10, the TVA cancelled 3 of the 4 reactors planned in Alabama (the fourth will reportedly follow!)
- November 20, Turkey cancels its project for a first nuclear plant

The nuclear share of the world’s electricity is in free fall. While new nuclear reactors are not being built the oldest are closing, and the nuclear share of world electricity continues to diminish : In 2008 it went below 14% (after verging on 20% several years ago) and, even if we have to wait for the definitive figures, it is certain that this fall continued in 2009. In the end, nuclear power has likely passed (or will shortly do so) below 2% of the world’s consumption of energy. It is clear that nuclear is finally a marginal form of energy on Earth (with in fact virtually no contribution to the struggle against climate change and to the supply of energy), all of which does not preclude posing dramatic problems: risks, radioactive waste, proliferation for military ends....

A rare handful of countries still have significant financial reserves which permit them to finance the construction of reactors:

- China is currently constructing a dozen reactors and could construct others by 2050. But this program which appears impressive at first glance, will allow China to cover at best 5% to 8% of its electricity, hardly more than 1% of its total energy consumption.

- In December Abu Dhabi chose the South Korean offer, mainly for financial reasons (the French EPR was much too expensive, in addition to being too risky in the area of safety); it is clear that Abu Dhabi will not spend money extravagantly on nuclear power.

Other countries are supposedly investing in nuclear power:

- Italy: The effects of Berlusconi's announcement clash with reality. Local populations and different regions are taking the necessary steps to block reactor construction. Consequently, the Berlusconi government is reduced to rounding up large sums of public money in an effort to "buy" the voluntary participation of the communes and regions.
- Great Britain: EDF bought out British Energy for 15 billion Euros but in the end has no money to pay for the planned EPR reactors. Despite this, the Brown government continues to reaffirm that there will be no public subsidies for new reactors. Moreover, it was the British safety authority (joined only later by the Finnish and French authorities) which brought to light the serious defects of the French EPR.
- USA: On October 15, 2009 the safety authority of the USA, the Nuclear Regulatory Commission, flunked Westinghouse's AP 1000 reactor, deeming it unfit to stand up to various climatic events or an airplane crash. This information, largely unknown in France, is a veritable earthquake in the US. It also strengthens the probability that the EPR will also be flunked (the verdict is to be announced in February 2012). More generally, even if the Obama administration is not strictly speaking anti-nuclear power, the departure of Bush and the non-election of McCain (who was calling for 45 new reactors in the US) is a terrible blow for the atomic lobby.
- India: Thanks to the incredible pressure of Bush and Sarkozy at the end of 2008, India obtained from the IAEA and from the NSG the necessary dispensations to be able to buy nuclear equipment and materials, in total contradiction to all the rules of non-proliferation (India is not a signatory to the nuclear Non-Proliferation Treaty). However, India's nuclear power projects are stalled, principally for financial reasons.
- The Case of Germany: The victory of the right-liberal coalition in the general elections of September 2009 was supposed to bring about the cancelation of the decision to shut down nuclear power there. Since then it's been tantamount to a "hangover" for the nuclear power industry: it is possible that several reactors will obtain a license extension, but no new reactor is planned and the end of nuclear power in Germany has not been questioned: Angela Merkel has noted that German public opinion remains radically anti-nuclear power.

## **Extension of the lifetime of some reactors... and the consequent increase in risk**

The most immediate consequence of the collapse of the “grand revival” of nuclear power will be the extension for as long as possible of the lifetime of current reactors. Consequently, even while there is no popular revival of nuclear power, the process of prolonging the operating lifetimes of existing reactors will instead provide an indefinite and aggravated risk of accidents.

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