

## Ren Energioplysning

Identification number in the [register](#): 075624711129-13

### Response from Ren Energioplysning (REO) to the public consultation concerning the Green Paper on a 2030 framework for climate and energy policies

The association REO highly appreciates this possibility to comment on EU-climate- and energy policy. REO has decided to refrain from answering the questions put forward at the end of the Green Paper and to respond as follows:

Based on the following considerations the EU-commission should

- Immediately abandon any target for the use of renewable energy sources in 2030.
- Establish a 2030-target for the use of low CO2 energy sources, i.e. nuclear energy and renewables.
- Encourage member states to keep nuclear power plants operational for periods similar to those applied in the USA and in Russia.
- Intensify research and development of generation IV nuclear technology.

### The strong anti-nuclear movement in Europe has a price

On May 24th, 2013, the US based **Industrial Info** newsletter had the story:

*As construction of coal-fired power plants comes to a virtual standstill in the U.S., demand for thermal coal in other parts of the world continues increasing. While few are surprised at the development of grassroots coal-fired plants in growing economies such as India, China and Southeast Asia, a glance through the news shows an increase in coal-fired power in an unexpected location: Europe, which was supposed to be home to some of the world's most stringent emissions-reduction initiatives.*

*Industrial Info is tracking more than 11,750 megawatts (MW) of new coal-fired power plants that are currently under construction in EU [member](#) states, including Germany, the Netherlands, the Czech Republic, Hungary and Poland, as well as a 1,600-MW coal/biomass-fired plant in the Netherlands.....*

In short: **coal fired production capacity of 11,750 MW is on its way in Europe.**

This number can be compared with the production capacity of prematurely closed nuclear power plants in Europe. REO has calculated this to be 15,574 MW, not including closed reactors of the same type as the reactor in Chernobyl which exploded in 1986, following various errors in operation and due to an intrinsic instability not present in other types of reactors. Also not included are capacities of two operating reactors and four

reactors in an advanced state of construction in Italy, all abandoned after a referendum in 1987, one year after the Chernobyl accident.

The European reactors have been closed for various political, non-technical reasons.

- Five reactors of Russian origin in Germany were closed in 1990 at the German reunification without any in depth consideration. Several similar reactors in other parts of Eastern Europe have been upgraded so that they continue operation, f. i. Temelin in the Check Republic.
- Four reactors of Russian origin were closed as a condition for access of Bulgaria and Slovakia to the EU. Also these reactors could have been upgraded (– and partly were already).
- Two reactors were closed in Sweden 1999 and 2005. The closure was part of the political price for abandonment of the 1980 decision to phase out nuclear power in Sweden by 2010.
- Two reactors were closed in Germany, allegedly due to age (Obrigheim and Stade). Similar reactors in the US have an operation permit up to the age of 60 years.
- Eight reactors were closed in Germany after an earthquake and tsunami hit a Japanese plant in 2011. Less than one year before the same reactors had an extension of their planned operational life of about 10 years.
- One plant, Mühlheim-Kärlich, was closed in Germany after a lengthy lawsuit initiated by a citizen allegedly concerned about the presence of a seismic fault under the plant. This fault was well known to the engineers who build the plant and due consideration was taken. The owner ultimately preferred a settlement to a lengthy and costly process.

As can be seen the reasons for these closures are many. They can, however, be put on the common basis: **a strong political anti-nuclear movement in Europe**. The outcome of this development is now clear:

- 15.574 MW of nuclear capacity, which could have been in operation today, is missing.
- 11.750 MW of new coal-fired capacity is under construction.
- Enormous sums have been spent on renewable energy, wind mills and photovoltaic panels, which cannot secure supply.

Political fascination of renewable energies is costly

The GREEN PAPER, **A 2030 framework for climate and energy policies, COM (2013) 169 final** reflects a mind-set which is highly focused on renewable energy. A linguistic analysis where the occurrence of certain words in the 16 page document is counted, reveals that the word “nuclear” has 2 hits whereas “Renewable” has 57 hits. The whole paper is designed to back-up the political choice that renewable energy is the solution to future energy supply in Europe. There is no evidence that wind energy and solar energy will be able to supply cost effective energy with high security of supply. Nevertheless renewable energy has for a couple of decades fascinated large fractions of society:

politicians, journalists and people at large. At the same time, nuclear energy has been discarded and generally has had a bad image in the mass media.

It is beyond doubt that the energy and climate policy of the EU has adversely influenced the economic situation of Europe: investing large amounts of money (billions of euro) in energy sources with a highly variable output, and at the same time closing down existing plants (nuclear as well as fossil), is not good for the economy. Frequent statements stressing the positive effect on employment of this spending, usually neglect consideration of the effect of alternative uses of the same capital.

## Nuclear energy is an option

Present nuclear reactors were developed about 50 years ago. Important decisions were taken with both eyes at the applicability for naval propulsion in the US navy. However, nuclear scientists demonstrated a completely different road to nuclear energy. The historical steps were Experimental Breeder Reactor 1 (EBR 1), followed by EBR 2. The latter introduced an entirely new concept: the Integral Fast Reactor, IFR, which was developed until 1994 when a promising research program was aborted by anti-nuclear forces in the Clinton Administration. Now this concept is coming back as one of the options in the Generation IV International Forum, where Euratom is formally a partner. The possibilities of the IFR are clearly presented in the paper (to be found on the web):

Archambeau, Charles, et al. *The Integral Fast Reactor (IFR): An Optimized Source for Global Energy Needs*. (2011).

The 10 authors of the paper come from various institutions in the USA, Russia and Australia. Their message is:

*The new Generation IV nuclear power reactor (the IFR, "Integral Fast Reactor") can provide the required power to rapidly replace coal burning power plants and thereby sharply reduce greenhouse gas emissions, while also replacing all fossil fuel sources within 30 years. We conclude that this can be done with a combination of renewable energy sources, IFR nuclear power and ordinary conservation measures.*

A dramatic finding is, that used nuclear fuel from the present generation of light water reactors, can be reprocessed by a new method which was tested at Argonne National Laboratory until the project was stopped in 1994 for political reasons. **This means that Europe has a large energy resource standing ready in a number of countries.** Used nuclear fuel is in some countries considered as long lived radioactive waste. After use in an IFR-reactor only waste with a much shorter half-life will be left.

Further information:

Bertel Lohmann Andersen

Physicist, Chairman of the board

[bla@reo.dk](mailto:bla@reo.dk)