

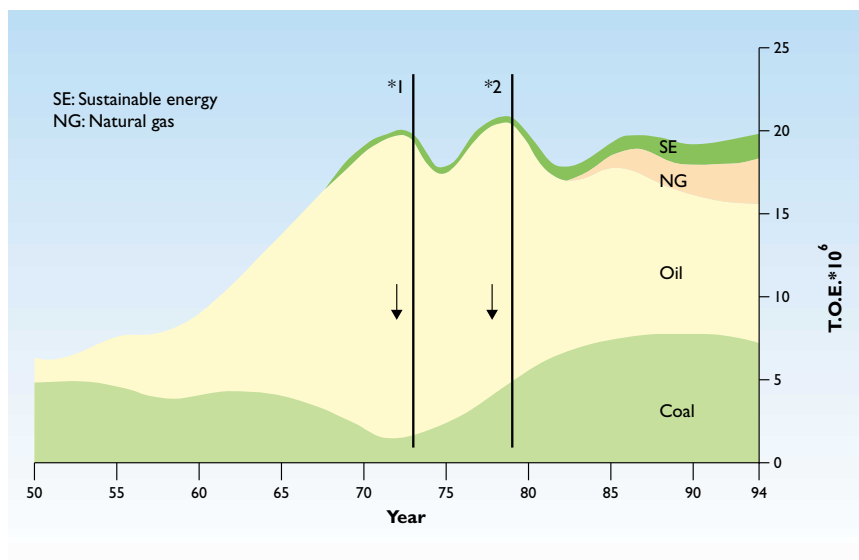
The natural background and our unquenchable thirst for energy



Kai Sørensen

We in the western world have developed an unrealistic attitude towards energy. Our entire culture is based on accessible and inexpensive energy. There is, however, a price to be paid. Combustion of fossil fuels, particularly oil and coal produce atmospheric pollution and CO². Today, no one can afford to close their eyes to the consequences.

Politicians attempt to alter our energy consumption habits, with both whips and carrots, but the results are unimpressive. The majority of people are not prepared to pay the price, a higher cost of fossil fuels or a change in our lifestyle. Our consumption of fossil fuels can thus be used as an indicator of our true will to change our existing habits to become more environmentally conscious. In Denmark, as in other western countries, the figures for fossil fuel consumption speak for themselves: our consumption of oil, coal and gas has increased year by year since the Second World War (WW II).



While there has been a general trend of steadily increasing consumption since WW II, the consumption curve fell twice during the 1970's (see figure 1: *1 and *2). This was the result of the creation of OPEC together with OPEC's aim to use oil as an economic weapon. Most people are familiar with these events.

However, few are aware that after a steep increase in prices immediately following the formation of OPEC, much to the delight of oil companies and oil-producing countries, the spiralling prices quickly lost momentum,

and in the 10 years since the huge drop in prices at the end of 1986, prices actually fell. The explanation for this phenomenon can be found in the North Sea and Alaska. The

Figure 1. The curve depicts the Danish energy consumption since WW II, calculated in tons of oil equivalents t.o.e).

period during the 1970's when the crisis was becoming serious for non-OPEC countries coincided with increasing fossil fuel production in the North Sea and Alaska. During the 1980's production from these two regions was so large that OPEC's weapon was virtually ineffective.

In the future, however, our ability to hold oil-producing countries and oil prices in check may be limited, as can be observed from figure 2 which depicts the remaining, known oil reserves in the North Sea compared to those of the Opec countries and Russia.

The development and expansion of the huge North Sea oil and gas production in the course of a decade is the subject of this theme issue. It has a lot to do with geology. Bear in mind that geology is "the heart of the matter" in the world's largest industry.

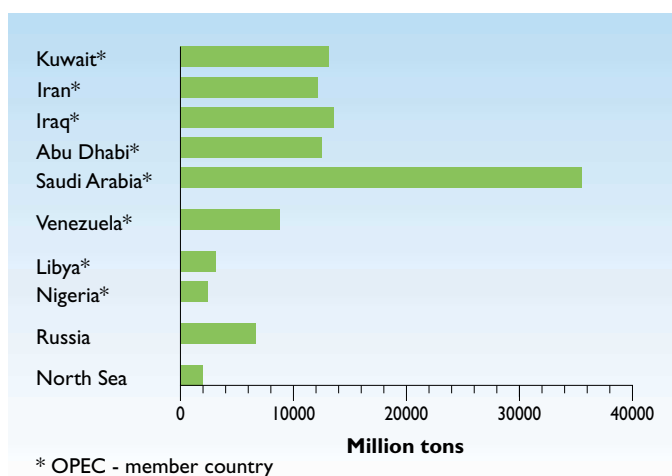


Figure 2. A column chart depicting OPEC's oil reserves compared to the North Sea reserves. (Gas is not included). Source: BP Statistical Review of World Energy, June 1995)