Is EU Energy Policy fit for purpose?

By Ian Fells

The recent collapse of the ice bridge in Antartica which protects the huge Wilkinson ice shelf, is yet another stark indication that the world is warming up. The overwhelming body of scientific opinion is that the effect is, at least, partially induced by mankind. The measured rise in sea level is simply the result of expansion due to the rising global temperature. If the Wilkinson Ice Shelf slides into the sea and melts that will be another, calamitous matter.

Something has to be done and in the EU we elect politicians to develop policies and subsequently legislate, to deal with energy supply and climate change, along with fiscal, agricultural and other policies.

But energy plays an absolutely crucial role in the EU, as it does in the rest of the world for that matter. Without an adequate and secure supply we quickly spiral down into anarchy and despair. So is the EU energy policy fit for purpose, will it lead to a secure supply of energy and, at the same time, reduce the emissions of green house gases, the result of our prodigal burning of fossil fuels, so that global warming is slowed down?

In January of last year the European Parliament and Council, taking their courage in both hands, issued an edict that by 2020, 20 percent of EU energy would be renewable and overall emissions 20 percent below 1990 levels. But are these realistic targets or just political targets?

The cause of renewable energy, and particularly renewable electricity, is espoused with almost religious fervour by some, and often the same people take up the cause of fuel poverty. As renewable electricity is the most expensive to generate, and in the case of wind power, intermittent, this represents a paradox; more renewable electricity means more people slide into fuel poverty. But if carbon dioxide-free electricity is necessary to protect the climate, it might be better to require 50 percent of EU electricity to be carbon-free, putting nuclear power more clearly in the frame and on a par with renewables. But some politicians with green agenda reject nuclear power with the same fervour that they encourage wind farms. In the UK, Ed Miliband Secretary of State for Energy and Climate Change said recently that it was “socially unacceptable to oppose the building of wind farms and as bad as not wearing a seat belt”

Taking a longer view, member states promise a reduction in carbon dioxide emissions of 60 per cent by 2050, alarmed by the strictures of climate scientists. A very tall order indeed, requiring profound changes in lifestyle.

The people missing from the debate are the engineers and industrialists who will have to implement these policies. If they speak up at all they say the

targets are “extremely challenging”, by which they mean “impossible”. It would be better to set rolling 5 year targets and then set new targets as they are attained; that way progress can be monitored.

It has been fashionable to leave energy policy to the free market; the UK has spearheaded this philosophy and is consequently in more of a pickle than some EU countries. It is third from the bottom in the league table for the use of renewable energy; only Luxemburg and Malta are below the UK. Sweden, France and Germany account for 40 per cent of EU renewable energy but all have been set substantially higher new targets for 2020.Can they be achieved? A reality check is required?

At this financially difficult time enthusiasm for investment in renewable energy is dwindling despite heavy subsidies of various kinds. Shell has discontinued its support for wind, solar and hydrogen and BP has pulled out of solar which leads one to speculate, does BP stand for “back to petroleum” rather than “beyond petroleum” as the company advertised a year or two ago? Investment in renewables world-wide is down 53 percent on the same quarter last year.

After the oil shocks of the 1970s and with security of supply in mind, the solution was declared as CoCoNuke; coal, energy conservation and nuclear power. At that time climate change was not an issue. We seem to be retrenching and moving back to this philosophy, or trying to. But there is strong opposition to expansion of coal despite its advantages in security terms, because of its perceived polluting tendency. This presents a dilemma, throughout the EU; we are running into a shortage of electricity generation capacity and to ensure supply the default position is to build a string of gas-fired stations quickly, making Europe more dependent on imported gas, which is not good for security and also not good for the climate. There is also continuing opposition to renewables of various kinds, despite Mr Miliband’s strictures; so much so that some environmental groups have, in despair, changed their stance and endorsed nuclear power, albeit reluctantly.

All of this brings huge pressures to bear on EU politicians and the Commission. Setting targets is not enough, the whole infrastructure of energy supply in Europe has to be stimulated to grow and change, with a smart, trans-European electricity grid and a mix of energy sources. That means more government intervention, which is anathema to many people. If we do not control our energy supply in a desirable way but leave progress to the market, we have no chance of meeting our goals and the climate will suffer and, just as important, if not more so, our security of energy supply will be jeopardised. We are moving into a post-market economy.

Fortunately, there are technical solutions to this problem; nuclear power is coming, belatedly, back into its own and the new Generation 4 breeder reactors use uranium 60 times more efficiently than before; they could effectively extend the world’s energy resources ten-fold. Further into the future, fusion power has a 50/50 chance of success. But in the short to medium term because of government inaction and the pathetic belief that the

market knows best, we will have to cobble together a mixture of elderly coal and nuclear stations and keep them going well past their sell-by date, develop mature renewable technologies, such as tidal barrages as quickly as we can, build energy from waste plants despite the knee-jerk anti-response whenever incinerators are mentioned and get on with building more nuclear stations as fast as we can. Carbon Capture and Storage technology could transform the future for coal but it is years away and will double the cost of generation. Energy prices will inevitably rise.

In other words, develop a strategic plan for the energy future and work within the guide-lines laid down within the framework. It may not be perfect but it will be better, and safer, than the current laissez-faire approach.

Professor Ian Fells, emeritus professor of energy conversion at Newcastle University, UK.