Response to the "Draft National Risk Assessment 2014" by Michael G. White - 26th June 2014

Risk: Security of Energy Supplies in Ireland.

Ireland has in excess of an 80% dependency on imported energy sources – oil, gas and coal. Like all industrialised countries we are totally dependent on adequate and reliable supplies of electricity for our future prosperity. Currently, and for the foreseeable future, approximately 60% of our electricity production will be obtained from gas turbine technology. Unfortunately about 95% of the gas currently used for electricity production is imported from the UK, via one gas pipeline through Moffat in Scotland. Interruption in gas supplies to Western Europe for even relatively short periods could be disastrous for Ireland, and in case we have forgotten the interruptions to gas supplies from Russia to Western Europe via Ukraine on the 1st January 2006 and subsequent occasions, we have had a very timely reminder of how fickle this situation is with Russia again reducing gas supplies through the Ukraine pipeline last week.

In assessing the potential loss associated with any identified risk one has to assess two basic components:

1. The probability that the loss will occur in the first place
2. The magnitude of the loss

So are we in a position to estimate the risk to Ireland of gas interruptions to Ireland? I consider that we are in a very good position to estimate this risk because the probability of the loss occurring has to be quite high if one accepts that:

- Gas supplies to Western Europe have been interrupted on several occasions in the last 10 years, and that supplies associated with the very difficult political situation in Ukraine are currently very vulnerable to further interruptions
- Nearly all of our gas supplies come through one pipeline in Scotland

On estimating the magnitude of the loss one only has to read a paper published by the ESRI in 2010 entitled **"The Cost of Natural Gas Shortages in Ireland":**

http://www.esri.ie/UserFiles/publications/WP397.pdf

This was a very high level paper but estimated that a 3 month electricity shortage in Ireland in 2020 – caused by interruption of gas supplies to Ireland - **could cost up to €130 billion.** This cost on its own would make the banking crisis look like a financial blip, but the situation becomes far more worrying when one considers that the paper does not consider any upstream or downstream effects of such a crisis e.g. would all of the major IT, pharmaceutical and other FDI industries immediately pull out of Ireland? The question raises such an "appalling vista" that it becomes almost difficult to answer it honestly?

Mitigating the Risks

The following are some suggested methods of mitigating - and possibly even preventing - the risks associated with interruption of natural gas supplies to Ireland. These suggestions are not intended to be seen as fully comprehensive, or listed in any particular order of importance:

- Ensure that Ireland has strategies and policies in place to encourage the exploration for offshore gas and oil fields
- Ensure that strategic planning legislation is in place to ensure that these gas and/or oil fields are brought into production in the earliest possible timeframe. It is a dreadful indictment on planning and energy policies in Ireland that no gas has yet been brought ashore from the Corrib Gas Field – a field that that was discovered in 1996 i.e. 18 years ago! The Ekofisk Oil Field off Norway was discovered in 1969 and commercial oil was coming ashore in 1971. Not only did Norway not have to worry about energy supplies, but it has now built up a Sovereign Wealth Fund from its oil and gas industry which is currently estimated to have a value of circa €650 billion. What a stark contrast between Ireland and Norway in those two facts?
- Ensure that Ireland has a diversified portfolio of electricity generating plant so that we are not overly dependent on any one source of energy. Moneypoint Power Station was built in the late 70's because of the oil crises of the 70's – when we were almost totally dependent on imported oil for our energy requirements. This was a decision that was thrust open us rather than being the result of a risk assessment exercise such as this current Draft National Risk Assessment 2014. We should have learned the lesson of "not putting all our eggs in the one basket", but we tend to forget this time and time again. At the end of its natural life, serious consideration should be given to replacing Moneypoint with a state-of-the-art clean coal plant.
- Consideration should be given to the idea of setting up a strategic gas storage facility of at least 90 days capacity onshore or just offshore the Island of Ireland.
- Onshore wind has been a major success story for Ireland, with over 50% of our electricity being generated at particular instants over the last couple of years. Wind helps substantially in meeting our emissions obligations and reducing our imported energy bill, however it is not of huge benefit regarding security of electricity supplies because it is intermittent and in particular it is not available when needed most i.e. in very cold conditions experienced in winter when a high pressure anti-cyclone sits over the country. As the amount of installed wind continues to increase consideration to the development of large scale energy storage technologies – that can complement wind intermittency - should be evaluated.

Yours Sincerely,

Michael G. White **26th June 2014**