

IRELAND'S RENEWABLE FUEL

INTRODUCTORY NOTE: In 2002, when this article was written, bogs were being closed at an alarming rate. Ireland was set to exploit a natural gas field off the West coast. However, the projections for gas field production were too high, and the field soon had to cease production while "Blowdown" operations were carried out. Meanwhile, natural gas had to be imported in a rising cost market. These circumstances (as opposed to common sense) brought a slight, and temporary, reprieve for turf harvesting. EU Directives require that 5% of Ireland's bogland be set aside as Special Areas of Conservation (SACs). Ireland has set aside some 15% of its bogland as SACs. Whilst conservationists might applaud this move, it ought to be borne in mind that selection of the bogland for SAC designation does not appear to have been conducted on the basis of environmental merit. Furthermore, the turf harvesting methods of Bord na Móna are little short of scandalous in environmental terms. The Irish Government is enforcing bog closures using methods which arbitrarily single out individuals and impose punitive penalties. The process of intimidation must remind many Irish Nationals of the reign of terror imposed by the Black & Tans about 100 years ago. The difference in the modern context is that oppression is carried out by the Irish Government against its own people.

Turf has been used as a fuel in Ireland for centuries. Now the harvesting of turf is frowned upon. Why? It is generally accepted that the problem of Global Warming is exacerbated by an increase in the amount of Carbon Dioxide in the atmosphere. Turf is burned as a fuel. A major product of burning is Carbon Dioxide. Therefore burning turf must be harmful to the environment and is to be deprecated. Q.E.D.

So, if turf is not to be burned, what fuels will Ireland use for heating its homes and producing electricity? The obvious answer, is that Ireland will use oil and gas. But wait.... burning oil or gas produces Carbon Dioxide in just the same way and in just the same quantities as burning turf. So where is the advantage in these fuels?

You might anticipate the answer. There is no environmental advantage. Oil and gas happen to be convenient for the utility companies, and beneficial to oil and gas corporations.

Take a look at a modern Gas or Oil fired power station. Hardly anything appears to be coming out of the smokestack. Now, take a look at the smokestack at Lanesboro or Shannonbridge. There is a thick plume of smoke. Oil or Gas stations are obviously cleaner. Look more closely. What you see coming out of the turf stations is largely water vapour. There is particulate matter which is dirty but not particularly harmful, and there are some noxious compounds. However, with investment, the flue gases can be cleaned.

The modern power stations were designed and built to produce low emissions, The turf burning power stations were constructed in an era when there was no requirement for flue gas cleaning. There is nothing

intrinsic in the design of the older stations which prevents their operation for quite some time to come.

Furthermore, distributed power generation is now recognised as an important means of maintaining supply stability and flexibility. It can also reduce power distribution costs. Until a few years ago, Ireland had a very well established distributed power generation network with many small power stations which burned turf. These were important centres of employment and technical expertise in rural areas.

The older power stations actually had very capable equipment, but were starved of investment with the sole objective of maximising profit for the utility company. They were ultimately closed down.

The combustion of oil and gas is far more harmful to the environment than burning turf. The long term interests of Irish citizens don't figure in the equation.

Electricity users in Ireland are quite familiar with power cuts. Predictions show a power shortfall for some years to come, yet the generating capacity of turf burning power stations continues to be eliminated.

The corporate structure of Bord Na Móna taken from its Annual Report of 2002 was worthy of examination. It had been divided into operating divisions. The profitable activities appeared to have been concentrated in certain divisions, and the business of producing turf isolated as a marginally profitable operation. Furthermore, the more profitable operations seemed to be diversifying into fossil fuel activities. The turf extraction operation on the other hand appeared to be carried out in a very inefficient way, achieving high costs. Along with low extraction percentages there is

an undeniably exaggerated impact on the visual and natural environment.

If anybody was given the task of making turf extraction appear undesirable they could hardly do a better job than Bord na Móna. It is an ideal opportunity for corporate turnaround, but it is doubtful if it will go in that direction. To anyone who has witnessed business asset stripping in operation, this looks like classic strategy. In a matter of years, the turf production operation will quite probably either be sold off or shut down. Perhaps both.

The situation is a shameful betrayal of the many gifted Irish engineers who designed and built ingenious extraction equipment specifically for deep bog extraction in the days prior to the introduction of turf milling.

But let us go back to the notion of Global Warming. Geologists tell us that millions of years ago, the world was covered in forests and populated by animals that are long since extinct. The coal, gas, and oil reserves are all that remain. What caused the life forms to become extinct?

We now live in an atmosphere which has only trace amounts of Carbon Dioxide. We know that a small percentage increase in the level of Carbon Dioxide will be sufficient to alter the conditions on Earth and make them unsuitable for human life. It seems reasonable to suggest that the dinosaurs became extinct because of an opposite effect. Vegetation trapped Carbon and released Oxygen. Reduced levels of Carbon Dioxide and increased levels of Oxygen could have been lethal to prehistoric life. The Carbon in their animal and vegetable remains was ultimately stored in the hydrocarbons underground. So the longer it can be kept there, the better for humans.

We are taught that we must protect the environment and retain our heritage. But what is the environment that is being preserved, and which heritage? The age of the oldest bogs is measured in thousands of years. That is not a long time in environmental terms. Many shallow bogs are more recent than Christianity. One authority states that bogs grow by an estimated 1mm per year. There is so much bog in Ireland that despite the extraction of turf by all the diverse users, bog is almost certainly increasing.

It is helped by the presence of schemes like Ardnacrusha. The concept of hydroelectric power generation is very seductive. It appears to be free power. Although the Ardnacrusha dam is a most impressive and attractive construction, it is in the wrong place. The Irish

Midlands are too flat for hydropower. The effect of the dam on land drainage is too severe.

If such a scheme was proposed today, it would be rejected on the grounds of its adverse environmental impact. Drive around localities like Ballinasloe, Ballyforan or Athlone and see the flooding which occurs for up to six months of the year. That same flooding slows down the drainage of farmland over huge tracts of the Irish Midlands shortening the growing season.

The entire flora and fauna of the river margins have been altered by Ardnacrusha in less than a lifetime. Farmland quality has been adversely affected. For all that, what compensation did the owners of flooded land receive? To this day, drains have to be constantly cleared to keep land in a productive state, and fields have to be drained with mole ploughs. The energy consumed in these activities is probably more than Ardnacrusha generates. Ardnacrusha was a prestige project engaged upon as a result of acute political shortsightedness.

It doesn't take a supercomputer simulation to realise that poor land drainage contributes to polluted water supplies which then require increased levels of treatment. The high moisture content in the soil saturates the air above it.

Insects love conditions like that, but anyone can tell you that tourists don't like visiting a country for which the most apt description is "*Damp*". The cost to the economy of respiratory illness and insect borne disease accentuated by persistent dampness is bound to be quite significant. But then, that translates into profit for the Medical and Pharmaceutical businesses, so perhaps that is exactly what the Irish Government want.

There are several examples of Bronze age farmsteads which have been found under deep bog. It does not seem remotely likely that these communities lived under the bog. You can be certain that our Bronze age ancestors enjoyed dryness and comfort as much as we do today. They would have lived beside lakes, or perhaps on artificial islands, but for certain they did not live under water or under bog. The environment that is being preserved is not very old at all. In fact, it is the product of neglect. Preserving a heritage of neglect is something which should be abhorrent to every Irish citizen.

While Britain and Europe were surging ahead with the industrial revolution, Ireland remained a backwater, silting up. The Victorians did not care a whit for tradition and heritage. They tore down, replaced and

developed. The result was an infrastructure which served the British very well for a hundred years. Germany was a similar example.

Now, however, it is not fashionable to have such a brutal approach, and that is good. Conversely, it is unfair to expect a country like Ireland which has a woefully inadequate infrastructure, to abide by restrictions on their environmental development so that the whims of overdeveloped nations can be satisfied. That, of course, is what is happening.

Put another way, developed countries can stay developed, but the economies of countries like Ireland will remain saddled with inadequate infrastructure, and be prevented from exploiting their rich natural resources. Progress, like any business, depends on marginal effects. Turnover may be huge, but a small change in circumstances can mean the difference between profit and liquidation.

One recent justification for preventing turf extraction was the assertion that Bog Cotton habitats would be destroyed. No intelligent person would ever have expected such a perverse argument to be advanced in any serious debate. Bog Cotton thrives on bogland where small scale extraction processes occur. The high bog, which has not been worked, is dominated by heather. Bog Cotton grows on the surface of bog which has been recently worked. However, Bog Cotton is only one species which requires the bog to be worked in order to proliferate. Careful observation of the water filled bog holes and the cut bog faces reveal botanical wonderlands which thrive where traditional turf extraction persists. When extraction ceases, the bog holes silt up and within a few years heather begins to dominate once more.

If there was the slightest concern for preserving natural habitats, small scale turf cutting would be actively encouraged.

Furthermore, commercial scale operations such as those carried out by Bord Na Móna would be required to abandon wide area turf milling and revert to progressive deep extraction. This approach would leave as much of the surface as possible undisturbed. In due course, thousands of Hectares which are presently deliberately maintained in a barren condition would be given an opportunity to regenerate. Within the space of a few years they would have reverted once more to their natural function as a massive Carbon Dioxide capture and storage facility. The countryside would also be more attractive as a result.

Perhaps we should be thankful that one tradition at least is being maintained and even promoted. In keeping with historical precedent the Irish people are being progressively sold out, not least by their own politicians. Just as Ireland exported corn while its own population starved to death during the famine years, the Human Right of every citizen to enjoy their own property without interference from the State has been abridged. All the while we Irish are expected to believe that the European Parliament and the Dáil are acting in the interests of the environment and heritage.

Do not be foolish enough to expect any support from the European Court of Human Rights. Its only reason for existence is to create the illusion in other parts of the world that Europe respects Human Rights. The Court ignores some 95% of all applications made to it. They are unable - or perhaps determined not to - keep track of cases, or even know whether a particular file exists or not!

If the Irish bogs were aggressively and intelligently harvested, in due course it would result in the re-emergence of ancient lakes which would once more develop their own rich fauna and flora. If at the same time the water level behind Ardnacrusha was allowed to drop by a few metres, the long term effect would be to improve the drainage of land adjacent to the rivers and bogs throughout the midlands. Water quality could be expected to improve and the drying of the soil would make farmland more productive.

Climate Change is expected to be accompanied by warmer, wetter weather. The last thing Ireland needs is more water saturating its land.

Ardnacrusha might not produce quite so much power, but the loss could easily be made up by rejuvenating the turf power stations and constructing others. However, it is likely that reduction in output from Ardnacrusha would in any event be more than offset merely by increased land yields and savings in the energy presently consumed for land drainage, not least by Bord Na Móna itself. Ireland could be expected to become progressively drier and more pleasant for its residents. A reduction in respiratory ailments, insects, and water borne diseases could be expected. The country would probably attract more tourists with attendant economic benefit.

If the European Parliament was remotely serious about addressing the problem of Climate Change, it would recognise encouragement of small scale turf extraction as a significant and valuable contribution to achieving its target reductions in fossil fuel Carbon Dioxide production.

But then, adoption of ideas like these require intelligent politicians with vision, determination, and at least some integrity. To the extent that the species ever existed, it has probably been extinct for many years.

So, if you are one of those who still stick to the Irish tradition of cutting and burning turf, congratulate yourself. Each time you throw a sod on the fire, take pride in knowing you are:

- Using a 100% biomass renewable energy source, thereby saving fossil fuel.
- Combating Climate Change.
- Preserving important habitats for Ireland's varied fauna and flora.
- Helping prevent Ireland from disappearing under rotting vegetable matter.
- Improving land fertility.
- Keeping Ireland's heritage alive.
- Enjoying the last vestiges of a Human Right which is about to be stolen.

Relax and enjoy a glass of poteen while you watch the flames.

Like the Dinosaurs, your breed too, is close to extinction.

J W Cahill
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ADDENDUM

Bord na Móna has announced the imminent closure of many of its VIABLE bogs. It will close the remainder of its bogs by 2025 - five years ahead of its original projection. Bord na Móna claims that this policy is a transition away from peat harvesting to a "More sustainable business model".

How does one obtain sustainability greater than the 100% available from properly managed turf extraction?

Failure to harvest the bogs is environmentally destructive. The bogs consist of decaying biomass, which releases both Carbon Dioxide and Methane into the atmosphere in an increasing, uncontrolled, and utterly worthless manner.

Somewhat reminiscent of the Dáil, isn't it?

I strongly suggest that it would be in the best Interests of Ireland to replace the management of Bord na Móna with some "*Right lads and lassies*" - people with a bit of cutting power, and a commitment to the National Interest.

Look on the bright side. Ireland's Colleges, Universities and Quangos seem set to receive inordinate sums of money to provide the many unfortunates, being thrown into unemployment by the bog closures, with worthless courses and certificates.

Isn't a scrap of paper so much more comforting than having the opportunity to earn one's living?

My assessment written 16 years ago was absolutely spot on. Ireland would do well to follow their neighbour's lead and exit the EU.

J W Cahill
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