

A gas-fired power plant in the heart of the Monts d'Arrée - Why ?

In Brittany, the number of companies is on the increase, as is the size of the population. As a result electricity needs are also increasing (so we are told). Electricity consumption is especially high in Winter when it is cold. This is particularly so at certain times of the day especially at 7 o'clock in the evening. This is referred to as a peak consumption period. A big increase in such periods, linked to a problem with the grid network, could bring about a general breakdown in electricity supply. In such a case we would be plunged into darkness, hence the expression « electricity blackout ».

In its « electricity pact » (*pacte électrique*), the Regional Council of Brittany announced its intention to build a combined-cycle gas fired power station in Finistère, the objective of which would be to produce electricity at periods of most need. The project has been put out to tender, and a decision about the choice of operator will be taken in the Spring of 2012.

So where's the beef???

To begin with, the size of the power plant.

The electricity requirement at peak periods in Brittany is in the order of 120 megawatts (already ensured by two petrol-fired units in Brennilis and Dirinon). The first project for the construction of a plant was near Saint-Brieuc (120 MW, then increased to 230 MW). However, this project was eventually abandoned due to the opposition of the elected representatives and a large majority of the population of the Côtes d'Armor.

The proposed power plant for Finistère is designed to produce 450 MW, and will operate not only at peak periods. This poses the question as to why something which was considered unacceptable in the Côtes d'Armor should subsequently be considered as a good thing for Finistère. And why do we suddenly need to produce 450 megawatts???

This type of power plant works on the principal that turbines are turned (thus producing electricity) by the process of **burning natural gas**. This creates much heat and a lot of water is needed to cool the plant down. This raises the question as to whether or not the reserves in Brennilis Lake will be sufficient for this purpose (the water in this lake is already used for other public projects). Another possibility is to use air to cool down the plant. Plants with draft wet cooling towers do exist, but these towers release great quantities of steam. Also **released into the atmosphere are carbon dioxide, nitrogen oxide and sulphur, and most importantly, microparticles.** An excess of these substances can be extremely harmful, giving rise to **acid rain** and causing **respiratory problems** in human beings.

Energy efficiency

Typically, **about 55% of the thermal energy used to generate the steam is converted into electrical energy in this type of power plant. In a house, a gas boiler would have a conversion rate of more than 95%.** So in energy efficiency terms it would seem that installing gas boilers in houses is a much more intelligent option. We wonder if it would not be a good idea to give a scrappage premium to people equipped with electric heating, which is an expensive form of heating, and which contributes in no small measure to the increases in electricity use at peak periods? This would allow people to scrap their electric radiators and install gas boilers instead, thus reducing the risk of an electricity blackout. This would also render the building of a new power plant useless. This would, of course, have financial implications for taxpayers, but the extension of the gas transport network to allow the gas to reach Brennilis is not without cost. And the additional expense of redoing and maintaining the road system leading to the power plant, which would suffer greatly from the increased use by lorries and big machines going to the site, must also be borne in mind.

Energy self-sufficiency in Brittany and the source of the gas

The state claims that Brittany is not self-sufficient as far the provision of energy is concerned - Brittany only produces about 9% of the electricity it consumes. This means, so we are told, that Brittany is particularly at risk of a blackout at peak periods, hence the need for the new gas powered station.

But **where will this gas come from?** Mainly from **Russia**. Some of it will also be supplied by **Algeria**.

Difficult, under these circumstances, to describe the new power station as a guarantee of the independence of energy for Brittany. In addition, a number of specialists in this area have expressed fears of an interruption in the supply of gas in the years to come, probably just when the power station will become operational. Why travel so far to find gas when locally we have wind, sun, waves and wood, as well as methane produced by animals, all of which can be used to produce electricity? Would it not be preferable to build many small units which would be more easily acceptable, rather than building a huge plant? Surely real energy independence means producing electricity on the basis of local resources?

Job creation

Those supporting the project have spoken of some 300 people being employed during the 3 years it will take to build the plant. Once completed, between 20 and 30 people would be employed permanently on the site. But this work is highly specialised and probably will not greatly benefit local companies.

Besides, some people employed by the operator may even be remote workers. The long-term employment potential is, therefore, difficult to determine. At this stage it is more probable that the power plant will destroy jobs locally rather than create any.

- For example, just next to the site of the where the power station may be build we have:
- A brand new leisure centre, employing about 10 people throughout the year (school and holiday periods included). Will this be able to continue functioning?
- A campsite. Will it not have to close? What camper would willingly come to pitch tent at the foot of a gas-fired power station?
- Les Salaisons de l'Arrée (food preparation), which employs some 150 people. How will they react?

As far as the project to create a sailing centre on the lake is concerned, it is difficult to imagine how that could go ahead. And what might be the risks for agriculture? For animal-raising?

Incentives to people to help them to better insulate their houses, and the improvement of insulation in public buildings would be far surer ways of creating jobs. And that is even without taking into account the many small units of electricity production scattered around the department.

Who will benefit from the electricity power plant?

The operator concerned has indicated that they would inject between 2 and 5 million euros locally.

Our municipalities will, therefore, be better off. But for how long? Who will want to come and live here? Will the local economy, comprised off small enterprises based around agriculture and agri-food, not suffer?

What is certain is that **the lion's share of the profits will go to the operator, as public money should provide for pipelines feeding gas to the plant as well as various connections.**

Many unanswered questions have been raised. There is much uncertainty surrounding this project.

We are all concerned by the land-use planning arrangements that the powers that be want to impose on us.

If this model is unsuitable, then others are possible!