



**CREATING A GLOBAL WIND INDUSTRY
- AN EU CASE STUDY**

Presenting author: **Bruce Woodman**
Pure Energy Professionals, United Kingdom. www.peprenewables.com



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The EU faces unprecedented pressure on both supplies and prices of energy and electricity. Wind Power is an obvious solution, but is attracting fierce criticism for being expensive and for requiring infrastructure investment on a large scale to enable full integration.

This paper contrasts the support made to alternative energy sources, particularly state aid and regulatory regimes for different fuels across the EU and beyond. It presents the commercial challenge and opportunities available to the European wind industry.

Objectives: fair treatment and continued support

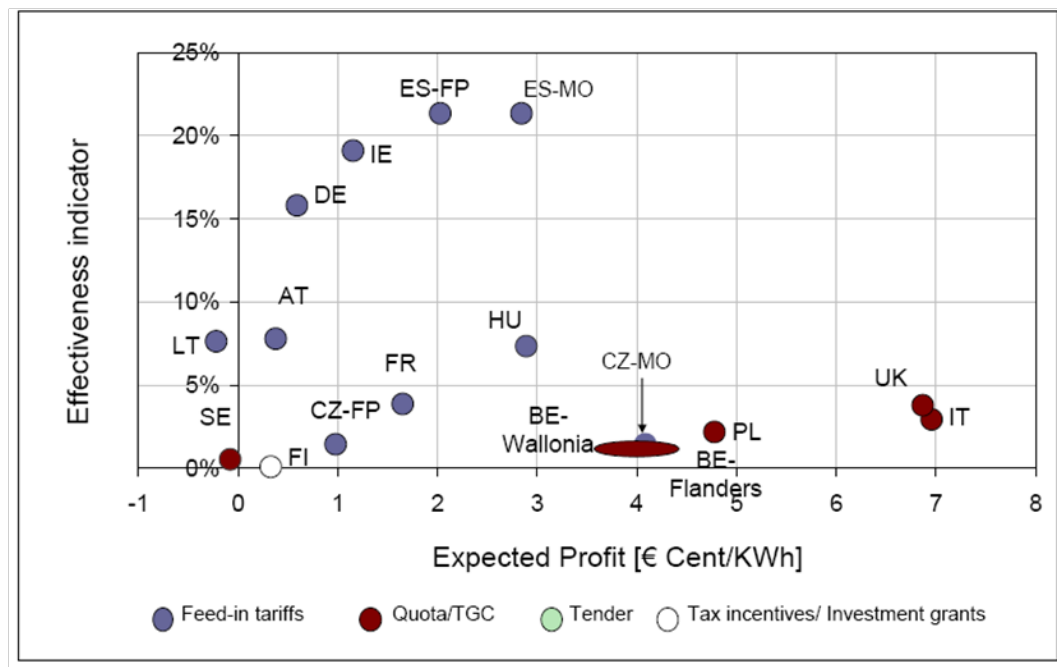
- **Geopolitical instability has led EU energy sources to be threatened. Supplies are less secure than desirable, and prices are volatile with an overall steeply upward trend. In these circumstances, renewable energy seems a logical first choice for investment. It is indigenous within EU nations, clean, and abundant. However renewable energy generally, and wind in particular is caught up in a battle. Critics see wind as an unsuitable choice for the future. They claim it is unreliable, being intermittent, and thus it requires an undue amount of infrastructure to support its continued growth. The “hidden” costs of wind power are being put forward as reasons to stunt its growth.**
- **Large scale deployment of wind power requires improvements to electrical infrastructure in many parts of the EU. The infrastructure was originally put in place to deliver electricity away from centralised (mainly coal) plant, rather than facilitate distributed generation such as wind power. Indeed much of the infrastructure is now so old that it is nearing the end of its useful life.**

Objectives: fair treatment and continued support

- **Critics claim that wind power is reliant upon public subsidies, and that it cannot compete with “proper” fuels such as coal and gas. They also claim that electricity from coal and gas is unsubsidised, and that if wind power cannot be economic without subsidy, then it should not be deployed. This infers that coal, gas, and nuclear power have all developed without public subsidy, and that they continue to operate in a free market. This is wrong. All these valuable energy sources within the EU have been nurtured and grown using state aid.**

Comparators

Wind power in the EU is an outstanding success. The installed capacity has reached 65GW¹, and 2008 saw more wind power installed than gas plant for the first time. A variety of country schemes exist to encourage renewable energy generally and wind in particular. Collectively they have been successful.



But has the growth in wind been caused simply by unfair and unique aid from the EU? What have other forms of electricity enjoyed?

The EU required² that any state aid for coal should not lead to delivered prices for coal that are lower than those available from third parties. In the five years previously, ending in 2001, coal received a total of €34 billion in direct subsidy in Europe. A 2007 report³ found that in Spain and Germany the average operating aid under Article 5(2) was over €140 per tonne. Operating aid approved under Article 5(3) between 2003 and 2010 was over €15 billion. Coal is a century-old means of generating electricity. A further €3 billion was approved under Article 4 to close coal plants in 3 countries. The EU cannot be accused of ducking the issue on energy. It is prepared to allow aid for coal plants to be opened, and to produce, and then allow further aid to close them. Even beyond that, under Article 7, aid 'for inherited liabilities' stands at €12 billion between 2003 and 2010. Plans now exist across the EU to test a variety of carbon capture and storage plants for coal: the so-called 'clean coal' programme. The schemes announced recently feature an envisaged European Community contribution of €1,250 million.

The nuclear industry has been with us for almost half a century. A Commission Staff Working Paper of 2002⁴ reported that in the early days “New plants were often prototypes applying new technologies. For most nuclear power plants built in this period the investment has still not been written off. In the second stage, nuclear energy reached maturity”. It goes on to say of the ‘mature’ second stage of nuclear power: “...aid granted by the EU Member States for nuclear technology amounted to €55 billion in the period 1974-1998...”

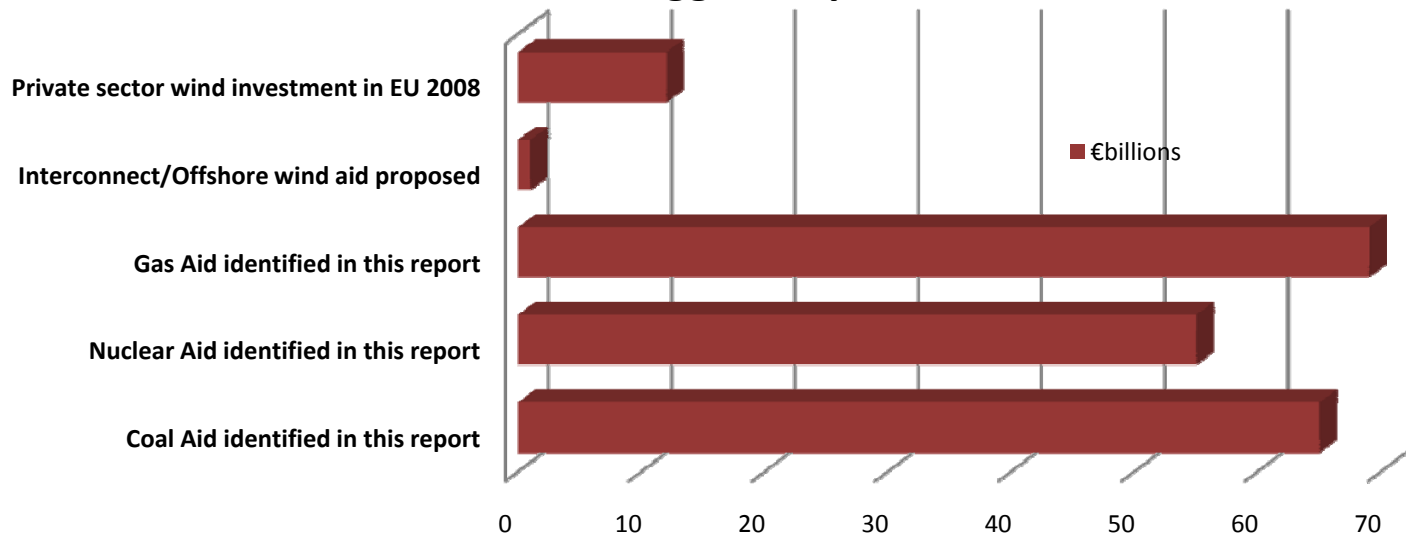
Natural Gas has been encouraged throughout the EU⁵. The total aid during the period 1995-2001 was over €68 billion. Of this, it was estimated that some 44% was for electricity production. Other recent initiatives have focussed on improving transmission capacities with current proposals for a further €1,025 million for gas inter-connectors. It is common for gas infrastructure to attract 100% accelerated tax depreciation in EU countries.

Other current EU proposals⁶ include: €700 million for electrical inter-connectors, some of which will help advance wind power, particularly offshore; and €500 million for offshore wind, principally for interconnections. These are small sums in comparison with support for more traditional sources of electricity.

Conclusions

It is quite clear that very large sums of aid have been granted to a range of electricity sources within the EU over a long period. This is not surprising. It is equally clear that wind power, which is built and funded by the private sector, competes in a market where sustained distortion takes place through state and EU intervention. All sources of electricity are affected by government intervention.

Wind in the bigger EU picture



Conclusions, continued

- **As has been demonstrated, the EU has a long history of identifying new and promising sources of energy for electricity, and helping their establishment through a variety of means, including indirect and direct aid. Renewable Energy generally and wind power in particular, both onshore and offshore, provide a vast EU resource which needs trans-national investment in infrastructure in order to fulfill its potential.**
- **It is arguable that not enough has been done yet to enable trans-national grids to allow the full deployment of wind power, and that this should become a priority.**
- **It is worthy of note that the American Recovery and Reinvestment Act which became law on February 17th 2009 contains strong echoes of EU actions. Renewable energy projects will get: capital grants of up to 30%; accelerated tax depreciation; extra fund creation of over \$3 billion for strategic grid extensions.**
- **The EU today has over half of the world's installed wind capacity. The EU has created the environment for a successful wind industry that can be adopted globally. Active support for wind power is essential, as all other alternative forms of fresh capacity have enjoyed huge financial support over long periods. On a level playing field, wind wins.**

1. European Wind Energy Association
2. Council Regulation (EC) No. 1407/2002 of 23rd July 2002
3. Commission Report COM(2007) 253 final
4. Inventory of public aid granted to different energy sources
5. The Trans-European energy networks programme (TEN-Energy)
6. Council conclusions, 19th February 2009



Renewable Business Growth.

Pure Energy Professionals Limited
Monument House
58 Coinagehall Street
Helston
Cornwall, UK
TR13 8EL

T: +44(0) 1326 572720 F: +44 (0) 1326 564144
www.peprenewables.com