The devil is in the details. Tradeable renewable energy credits in a liberalised European market for electric power

Helby, Peter

Published in:
Wind Power Monthly

1997

Citation for published version (APA):
The devil is in the details
by Peter Helby

Windpower Monthly called on the wind power community to embrace liberalisation and go for a system of tradable renewable energy credits. This is good advice. Support for such proposals in the EU Commission's Green Paper will indeed be well spent, as argued by Michael Grubb in Windpower Monthly last month. As he hints, fear of liberalisation seems instinctive for many friends of renewable energy. If this fear is allowed to carry the day, renewables will put themselves on a side track. Still, getting policies right may be more complicated than argued so far.

How will the proposed renewables credit system look in the eyes of investors? At present the NFFO system in Britain guarantees a specific price for several years. This is a banker's dream of secure cash flows, and one of the factors explaining why wind power is so cheap in the UK. Long term private contracts, forced on utilities in countries like Italy, have the same advantages from a financial point of view. It is no coincidence that Britain and Italy have attracted much international finance to their wind power development, unlike several other countries.

Even without clear cut, long term contracts, countries like Germany, Denmark and Sweden have been quite successful in attracting domestic capital to wind power. Their various combinations of price regulations and energy tax exemptions also promise fairly stable cash flows. Yet, this stability is based on political assumptions, rather than legal facts. Investors assume that politicians will give them a fair deal and avoid sudden changes in power sales conditions. Private domestic investors do not seem much worried by the uncertain nature of this assumption. Institutional investors are worried, and foreign investors certainly do not like this type of political risk.

Compared to these systems, how will investors view the proposed renewables credit system? It will certainly look more risky. Prices will depend on the yearly balance between offer and demand. New technological developments may undercut the profitability of present investments. Even worse, nobody can know if regulators will keep up the pressure for more renewables. These are quite basic risks that cannot be alleviated by "a modest futures market" or a system for banking of credits, as suggested by Michael Grubb.

Should such risk be alleviated, a true-heart liberal may ask? Don't we have the capital market exactly to deal with such risks? No, because we cannot seriously pretend that the new market for renewable production of electric power has the same stability and maturity as the old market for electricity from traditional sources. Demand in the renewables market niche is politically determined and much less predictable than total power demand. Offer is also less predictable. This will translate into significantly higher capital costs for renewables, compared to the alternatives. Fair enough -- from a liberal perspective -- but detrimental to the implementation of renewables.

Alleviating risk

Can this market risk be alleviated as part of a renewables credit system? It can, if the system is carefully constructed. Two goals would be worth lobbying for. One is a binding minimum commitment by governments to year by year targets for renewables at least eight to ten years into the future (in a revolving planning, where minimum targets are
always known eight to ten years in advance). Ideally, EU law should be drafted in such a way, that private investors can sue governments creating less than the promised demand.

The other goal, perhaps more realistic, is a system of private long term contracts. Credits should be given, not for spot deals in renewables, but for long term contracts, with prices fixed or indexed to other energy prices. Such contracts are quite common now in the natural gas and electric power markets, now used to share risk between producers and consumers. Such risk sharing may be even more important for renewables. The investor would be able to sell eight to ten years of production at once according to a fixed price formula. This would provide the same secure investment climate as the NFFO has given and would be an improvement over the political risk inherent in the present German and Danish systems. It would not preclude a trade in renewables in other markets. The spot market would still be there, for use when the long term contracts expire, for sale of additional production, or for sale of power to green consumers. Possibly a secondary market for long term contracts would arise in parallel to the credits market. The point, however, is to focus government intervention on the market most important for renewables. That market is the long term market.

**Additional policies**

A well constructed renewables credit system is the most realistic European framework for the promotion of renewables. Yet, there is no reason to throw other good solutions in the garbage can. Even if they cannot be applied on a European scale, they may still work well as additional policy instruments on a national scale.

One such solution is taxes. Michael Grubb argues that a tax solution is superior in principle, but is simply not about to be introduced. This is a sound assessment of European (and global) politics. At the supra-national level, a carbon tax is not Realpolitik. But at national level, taxation is progressing nicely in Denmark, Sweden and the Netherlands and is not more controversial than other aspects of energy policy. Calling it "dynamite," as Windpower Monthly did, is out of tune with national political realities. On the other hand, there certainly are many countries in the world, including major Anglo-Saxon nations, where taxation is simply out of the question. The hostile reaction to taxation, however, is not quite typical within the EU. Public opinion in some southern European countries accepts high petrol taxes more readily than income taxes. Most of continental Europe is used to high electricity rates. As liberalisation brings down these rates, it might be quite realistic to sneak in some taxes, at least to compensate the fall in prices.

**Using subsidiarity**

Subsidiarity implies that a European system of renewables credits ought to be constructed in a way that allows coexistence with national policies based on taxation. This need not be too difficult. For a wind power producer marketing his product across European borders, it is not important that the demand he meets in the UK is due to a credits system, whereas the Danish demand is due to a tax system. Important to him is strong and stable demand from all countries, hassle free means of selling his power across borders, and a European system for branding his product as wind power.

Taxation still has significant advantages over credits. First and foremost, it promotes energy savings as well as renewables. A negawatt is better than a megawatt (unless you should happen to be in the wind power business). Renewables credits do nothing to promote savings. Taxation does. So please allow it to be the preferred option in those countries where it is not dynamite. At present, EU law severely limits the ability of those countries to implement energy taxation in rational ways. The removal of such legal barriers should be one element of a European package to promote renewables.
Monopolies
Just as renewables credits should not be allowed to steamroll more advanced policy instruments (taxation), neither should they entirely replace less advanced solutions. Even in a liberalised regime, there is room for some support mechanisms based on monopoly regulation. Typically, distribution will remain a monopoly, even if production, sale and perhaps transmission is liberalised. In Sweden the production and sale of electric power is now quite free, whereas transmission is a state monopoly and distribution a local concession-based monopoly. Thus, the consumer can buy power anywhere, but the distribution service must be bought from the local "concessioned" distribution company. Monopoly regulation of transmission and distribution means that there is still a potential monopoly buyer of renewable energy. A distribution company must in any case buy power somewhere to cover its own grid losses. For this purpose, each local distribution company could have an obligation to buy first from local small scale producers at regulated prices before turning to the liberalised market. Such protected markets have worked well for the initial development of wind power in several countries, and may still serve other less mature technologies, or even wind power in less mature markets. Such demands on monopolies, imposed on a national level or even by local government, might well coexist with a European system of renewables credits.

In conclusion
There are three points to be summarised here. First, renewables credits are, indeed, the only viable European scale policy and thus worth the lobbying efforts of the wind power community. Second, the credits system needs to be carefully construed, with due regard to the logic of financial markets. Third, subsidiarity can add value. Room should be allowed for more progressive solutions (taxation). A certain scope should also be allowed for more conservative solutions (obligations to buy, based on remaining monopoly structures).

Copyright © Peter Helby & Windpower Monthly 1994-2000