

3 Potential for Community Ownership of Wind Farms - Findings and Recommendations

The crucial importance of promoting greater use of renewable energy resources to provide for Ireland's ever growing energy demand, as well as the positive experiences in other EU members states, have been outlined in the previous sections.

The experiences of a number of community groups in Ireland who have entered or are considering entering the wind energy sector have also been examined. These examples have raised some issues in relation to the existing policy framework governing wind farm development in Ireland. Some of these issues are particularly relevant for promoting community involvement.

During the course of conducting this exercise, a public consultation process was initiated by the Department of Communications, Marine and Natural Resources - 'Options for Future Renewable Energy Policy, Targets and Programmes'. This provided the Renewable Energy Partnership (REP) with the opportunity, in February 2004, to submit our findings and recommendations on the factors influencing community ownership to the Department. In May 2004, the Department announced the establishment of the Renewable Energy Development Group.²⁸ This is a welcome move and we are optimistic that steps will be taken shortly to implement some of our recommendations or to introduce measures with similar effect.

This section of the guide outlines the findings of the research and the REP's recommendations. It is hoped that implementation of these recommendations would facilitate and progress community-owned wind energy projects.

3.1 Findings and Recommendations

1. National policy

The experience of other European countries shows that a stable, supportive policy environment is essential to encourage communities and commercial developers to invest in wind energy.

The current fiscal, regulatory and infrastructural policy framework tends to favour development of wind farms by larger-scale developers. For example, the Alternative Energy Requirement (AER) bidding system has allowed larger-scale developers to take up some small-scale contracts intended for communities and small-scale developers. It is therefore particularly important to

ensure that the national policy framework governing wind energy development contains specific measures aimed at encouraging community involvement.

Recommendation: The public consultation process undertaken by the Department of Communications, Marine and Natural Resources, as well as the establishment of the Renewable Energy Development Group, presents an opportunity to develop the necessary supportive policy framework. The new policy framework should discriminate positively in favour of community participation in wind energy development, so as the positive benefits of local involvement in renewable energy development can be realised.

2. Access to the national grid.

The study identified the cost and uncertainty of connecting to the national grid as a major constraint for community participation in wind farm development. According to Garrad Hassan,²⁹ a firm of consultants, output from Irish wind farms will not advance much beyond the 1000MW level without considerable investment in the grid. The 188MW already connected, the 700MW for which connection agreements have been issued plus 300MW from a joint ESB/Bord na Mona project in North Mayo means that all the available grid capacity has been allocated. No capacity for community projects is currently allocated. It should be noted, that a proportion of the 700MW for which connection agreements have been issued may not, in fact, be utilised and may be available for re-issue in the future. This could be reserved for community-owned projects.

Recommendation: All renewable energy projects below a certain size, and with a high level of community involvement, should be provided with a connection to the national grid at no cost to the project. The eligibility for such connections needs to be established according to clearly defined criteria and an example of a possible system for assessing eligibility is given in Appendix I.

²⁸ Department of Communications, Marine and Natural Resources, Press Release, 6 May 2004

²⁹ Garrad Hassan, The Impacts of Increased Levels of Wind Penetration on the Electricity Systems of the Republic of Ireland and Northern Ireland: Final Report, February 2003 <http://www.cer.ie/cerdocs/cer03024.pdf>

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3. The Alternative Energy Requirement (AER) bidding system

The Alternative Energy Requirement (AER)³⁰ bidding system has created significant uncertainties in developing renewable energy projects and has made wind farm development in Ireland a highly speculative venture. The uncertainties have resulted in developers having to demand a higher return on their capital. In addition, the stop-go nature of the system has meant that there has not been a steady flow of Irish wind turbine orders and thus no basis for developing a turbine manufacturing sector here.

As outlined in Table 2 (see page 21) Denmark, Germany, Spain and every EU country to show sustained growth in wind energy installations have laws under which electricity producers can connect to the grid at any time and be paid a guaranteed premium price for their power. Both the UK and France have recently replaced the type of competitive bidding process currently used in Ireland with such a system.

Moreover, if the Commission for Energy Regulation's (CER) arrangements for selling electricity are applied to small-scale renewable energy projects when they come into effect in 2005, it will be impossible for small-scale promoters to raise finance. Under the new system, all electricity using the national grid has to be sold into a national pool. Electricity producers have to estimate how much power they can supply, and the cost of it, for each half-hour period during the day. The pool operator will then meet the projected demand with supplies from whichever electricity producers have submitted the lowest offers for each half-hour period. This makes it impossible to calculate what the wind farm's income will be over the course of a year and consequently whether it will be a good investment. A community would find it impossible to invest on such a basis.

Recommendation: The Renewable Energy Partnership strongly recommends that the AER system be replaced by a feed-in law³¹. This would enable all renewable energy projects below a certain size to sell their electricity at a guaranteed price. The price should be index linked and guaranteed for at least ten years.

The agency mandated to purchase the electricity from these projects could then sell the power into the national pool. Any shortfall between the income the agency received from the national pool and the price it paid its power suppliers would be covered by the Public Service Obligation levy paid by all electricity consumers. This is currently used to pay the higher cost of electricity bought under AER contracts and from peat-fired power stations.

4. Planning permission

At present there is a 50 to 60 per cent chance that an application for planning permission for development of a wind farm will be rejected. This high failure rate is mainly due to a lack of clearly zoned lands for wind farms in County Development Plans. In Denmark, the entire country is zoned.

It is also the case that, although Environmental Impact Assessments (EIA) are not a statutory requirement for wind farm developments of 5MW or less, some local authorities may request such an assessment if they deem it necessary.

Recommendation: In July 2000, the Renewable Energy Strategy Group³² recommended that the country be divided into four zones for wind farm planning purposes. The Renewable Energy Partnership supports this idea and proposes that the zones could be as follows:

Zone A – Priority Areas: Areas deemed eminently suitable for wind farms.

Zone B – Preferred Areas: Areas suitable for wind farm development where planning permission would normally be granted if convincing evidence of community consent accompanied the application.

Zone C – Sensitive Areas: Areas where approvals would be limited to small projects developed by the local community.

Zone D – No-Go Areas: Areas unsuitable for wind farms due to their scenic, ecological, historic or tourism values.

³⁰ See Glossary of Terms

³¹ The feed-in law system requires electricity utilities to pay a fixed price for all electricity generated from renewable resources.

³² Renewable Energy Strategy Group, A Strategy for Intensifying Wind Energy Deployment, 2000

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All wind farm developers in Zones A and B should be required to give the local community the opportunity to raise a designated proportion of investment from people living within a specific radius of their sites before becoming eligible for planning approval. For example, the minimum local participation level could initially be, say, 5 per cent in both cases and then rise, as people become more accustomed to investing in wind energy, by a further 5 per cent every five years to a maximum of 20 per cent. The radius from the site for residential investors could be greater in Zone A as projects there are likely to be larger. A ceiling would be placed on the size of individual local investments in each case so as to spread the benefits of the investment as widely as possible.

In Zone C, all turbines would have to be entirely owned by community groups consisting of people living within a specified radius of the site. Broadly-based community groups would be permitted to erect single turbines of under 850kW in Zones A, B and C without needing to submit Environmental Impact Assessments (EIA) for them, except in exceptional circumstances.

5. The price offered

The competitive AER bidding system has resulted in low electricity purchase prices in Ireland in comparison with elsewhere in Europe. This has inhibited the development of the sector. For example, several contracts were given to firms under AER V which subsequently found them so unattractive at the price they had offered that they failed to supply power under them. The exact prices paid under the contracts issued as a result of the most recent bidding round, AER VI, have not been revealed as they are commercially sensitive but the report submitted by the consultants³³ to the REP estimates them to be approximately 4.7 cent per kWh.³⁴

Care must be taken when comparing prices per kWh however, as they reflect the quality of the wind regime. For example if there are higher wind speeds in Ireland than in, say, Germany, more electricity would be produced here and this would counterbalance the lower price per kWh and increase the margins of developers in Ireland. Therefore, as a result of higher windspeeds, Irish wind farmers do not require, say, German-level prices.

Recommendation: Producing electricity from the wind is one of the few areas in which Ireland really does have an international competitive advantage. If the previous recommendations (1 to 4) are implemented, power prices would not need to be much above their present levels for them to be attractive to small investors - provided that they were guaranteed for 10 to 15 years.

If a feed-in law system is introduced (as proposed in Recommendation 3), the power price guaranteed to broadly-based community investment groups³⁵ should be calculated so that it is high enough to allow investors to repay a ten-year loan from their credit union on an average site. An example of such a calculation is given in Appendix II.

6. Financial supports and incentives

Apart from investments under the Business Expansion Scheme (BES), tax allowances for investments in wind farms were abolished in the 2003 Budget. At present it is proposed that BES will continue until 2006.

Recommendation: State support or incentives should be given in a way which encourages all those living in areas where wind farm projects are being developed to invest, regardless of their tax status. Such assistance could, for example, take the form of providing a level of support equivalent to that enjoyed by those availing of the BES scheme to all investors in renewable energy projects in the manner outlined in Appendix II. The calculations in Appendix II show that a power price of 5.216 cent per kWh is high enough for people to be able to borrow the capital they need to invest from their credit union and to repay their loan over ten years. Repayments would be covered by the revenue they receive from the sale of their share of the electricity.

Alternatively, state support for renewable energy development could take the form suggested in Recommendation 2 i.e. providing all renewable energy projects with cost-free connections to the national grid, a subsidy specifically permitted by Article 7 of the EU's 2001 Directive on the Supply of Electricity from Renewable Sources.

³³ CSA Group Ltd, Final Report submitted to the Renewable Energy Partnership, December 2003

³⁴ These prices are low when compared to Europe's wind energy leaders. For example prices paid in Germany have been 9.1 cent per kWh plus turnover tax (VAT) and in 2003 prices in Spain were 6.2145 cent per kWh for a 3.2MW wind farm.

³⁵ A large group of small scale individual investors from the community or who have links to the community.

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7. Access to information and support structures

Communities are often unaware that they can become involved in renewable energy projects and the steps they need to take to do so. Even if they are aware, they are unlikely to possess the necessary specialist skills to progress very far. In addition, at present Ireland lacks the institutional and advisory arrangements that made community investment in other European countries such a success.³⁶

Recommendation: The study identified the need for a support structure to help communities develop wind energy projects of their own or to negotiate a stake in commercial wind farms being developed in their area. It is recommended therefore that seed funding be provided to enable the establishment of a **Renewable Energy Advisory Group (REAG)**.

The effectiveness of such a group would be dependent upon changes such as those recommended in this document to the policy framework governing wind energy development in Ireland. It is hoped that the current work of the Renewable Energy Development Group will result in such positive changes and facilitate the provision of seed funding for the establishment of a Renewable Energy Advisory Group.



Proposed Renewable Energy Advisory Group

The Renewable Energy Advisory Group (REAG) is envisaged as a national organisation acting as a 'one-stop-shop' for community groups that need expert technical, legal and financial advice on wind energy projects. It would fulfil a similar role in Ireland as Energy4All already plays in Britain (see Part I, Section 2.1.2). The proposed REAG would assist a community group to become involved in a wind energy project by:

- providing experts at subsidised rates
- helping source public, institutional and private funding
- assisting in negotiations with commercial developers
- carrying out due diligence studies on wind farm projects
- advising on the appropriate amount of investment and the potential rate of return.

The REAG could operate in much the same way as the Irish League of Credit Unions (ICLU) i.e. it would provide the training and expertise required by any group that approached it. Also, once it was well established, the REAG could be financed in a similar manner i.e. after a start-up period in which it would have to be subsidised, the REAG could become self-sustaining by receiving a small percentage of the income that each community group receives from its electricity sales. This would ensure the independence of the REAG.

Community organisations in areas in which wind energy projects are planned or in progress would be invited to join the REAG which would, if invited, work with them in any dealings they might have with developers, whether these involved community investment or not. In addition, the REAG would provide an umbrella organisation to present the case for community investment in wind energy nationally, in collaboration, where possible, with existing organisations.

³⁶ See Part I, Section 2 and Table 2 for further detail.

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8. Community ownership structures

Raising money from a large number of people for a wind energy project is legally complex, as the trading of shares is closely regulated and advertising them is strictly controlled. While a range of collective ownership structures have been developed in Europe and the UK to solve this problem, initiatives to overcome this have not been tried in Ireland to date.

Recommendation: The study suggests that the co-operative model has worked well for Irish farmers and fishermen and may be a good vehicle for use by broadly-based community investment groups (see Part II, Section 4 and Section 5).

9. Local authority structures

Irish local authority structures differ significantly from those in other European countries. It is not within the remit of local authorities to actively promote community entry to wind farming, as is the case elsewhere in Europe.

Recommendation: Ways must be developed for local authorities to encourage community involvement in wind energy projects. Reserving areas for community wind farms in County Development Plans would be one possibility.



3.2 Conclusion

Careful consideration of all of these issues has led to the conclusion that until all or most of the issues outlined above are addressed, communities may face significant difficulties when developing 100 per cent community-owned wind energy projects. Consequently, unless conditions are extremely favourable, communities should consider refraining from investing in their own wind energy projects as the level of risk and uncertainty is currently too high.

The most promising investment option communities should currently consider is that of participating in commercial projects once such projects have secured planning consent, a grid connection agreement and a contract for the sale of electricity. The steps communities should take when considering investing in wind farm projects are outlined in Part II of this guide.

It is hoped that the work of the Renewable Energy Development Group will have a positive impact upon the current policy framework and will facilitate more active participation by communities in wind energy developments in the future.

The study also concludes that, in the right climate, the proposed Renewable Energy Advisory Group (REAG) could eventually enable small-scale individual investors to invest significant amounts of money in a genuinely productive way. It would take time for people's confidence to build up of course, but the potential certainly exists. For example, a fairly typical credit union in the Western Region currently has over €30 million available to lend to its 8,000 members but as the members only want to borrow €13 million of this, it has had to send €17 million out of the area for investment elsewhere. Every other credit union in the Western Region has surplus funds on a similar scale. The Western Investment Fund managed by the WDC has within its remit the scope to invest in community based wind farms.³⁷

Other countries have found ways of using small-scale individual investors' savings for massive wind energy projects such as the €48 million offshore wind farm at Middelgrunden (*File 3: Danish Community Wind Farms*) in Denmark, which has been developed by a co-operative with 8,550 members, mostly residents of Copenhagen. The study shows that given a policy environment that facilitates community-owned projects, Ireland could have similar wind farms within a few years.



³⁷ For further information on the WIF visit www.wdc.ie. Two main criteria for investment apply: the commercial viability of the project and its ability to provide the WIF with an appropriate financial return for the risk undertaken and the social benefits accruing to the areas served by the project as a result of the investment, including employment potential and quality of life. The WIF does not give grant aid.