Doubling of wind power 
‘needed to keep bills down’

Rabbitte reveals he personally regards turbines as ‘attractive on the skyline’

Paul Melia  
Environment Correspondent

DOUBLING the amount of wind energy on the national grid is key to preventing higher electricity bills in the future, Energy Minister Pat Rabbitte has said.

In comments that are sure to prove divisive, Mr Rabbitte also claimed that he personally found turbines “attractive on the skyline.”

But stressing that he would not impose that view on others, he said there had not been any “serious distress” about wind farms constructed to date.

However, Mr Rabbitte believes the debate on wind energy is “haunted by a good deal of mistrust”, with opponents claiming that the power would not be used here, but transmitted to the UK.

Mr Rabbitte said plans to upgrade the national grid had “nothing” to do with large-scale export projects involving hundreds of turbines planned for the Midlands and accused some campaigners of being “devious”.

His comments come as the Irish Independent today publishes the first part of a two-day special report into wind-farm development across the country.

Oil prices

The amount of generating capacity is expected to double by 2020, resulting in more than 100 new wind farms being constructed across the country.

The targets are both to combat climate change and to provide a new source of energy for homes and businesses. Use of renewable energy has resulted in savings of €1bn on fossil fuel imports over the past five years.

Mr Rabbitte said: “I take the ESRI view to an extent, that it’s a hedge against rising prices.

“We import 90pc of our oil and gas and the import bill is in excess of €6bn (a year). Nobody sitting in my seat can afford to ignore the context in which we’re discussing this issue.

“Some of the more devious campaigners confute the necessity to strengthen the grid for domestic purposes (with export projects). It has nothing to do with that and doesn’t impact on our necessity to have a domestic grid fit for purpose.

“A row has now emerged about whether we have the midlands export projects but that’s an entirely separate issue.”

The International Energy Agency has warned that oil prices have averaged $110 (£80) per barrel in real terms since 2011, a “sustained period of high oil prices that is without parallel in oil market history”.

Prices are expected to continue to climb over the coming years, resulting in higher electricity prices.

The Commission for Energy Regulation (CER) said that if fossil fuel prices remained high, wind power would help consumers avoid the worst of the price increases.

“It (wind) lowers the wholesale price of electricity,” a spokesman said. “When fossil fuel prices are high, wind has a particular benefit and tends to reduce costs. When fossil fuel prices are low, wind tends to add to bills.”

Experts believe that increased production of shale gas in the US, using the controversial “fracking” method, could result in lower gas prices if it could be exported.

Mr Rabbitte said that changes to how we produce electricity could develop in tandem with new technology.

“It is a hedge,” he said. “Who knows how the price of gas is going to go in the future? I would not seek to tell you what the view of the minister in 2025 will be, but the short-term view in energy is that projects have a long span between conception and delivery.

“In the 10 years we seem to have got a pretty balanced approach to the energy mix. I’m not saying that we go after 10 years and accelerate wind. There have been dramatic changes in the last five or six years and there will be more.

“I wouldn’t confess to an ideological conviction about which way to go into the future, but as of now it is a balanced approach.”
They’re a thing of beauty, or a blot on the landscape.
They help reduce bills, or drive prices up because of subsidies we pay.
They’re the solution to our energy crisis, or a barrier to reducing consumption.
Never has a technology been so polarising as wind energy.

The first windfarm was erected in Ballycorick in Co Mayo in 1992, and it is still generating power today. By the end of this decade, there will be sufficient wind on the system to power more than three million homes, with more than 263 individual farms dotted across the country.

And like all large-scale infrastructure projects, the issue is rife with controversy. The Government, and developers, say we need renewable energy to hedge against future oil and gas price increases, to develop an indigenous supply and help meet climate change targets, where 16pc of all electricity must be produced from renewable sources by 2020.

Opponents say the turbines, which can be up to 180 metres high, are a blot on the landscape and don’t benefit the host communities because the power is transmitted elsewhere. They impact on health and property values, and the only winners are the companies involved in their construction, they say.

But concerns about new forms of electricity generation becoming costly white elephants are nothing new.

In December 1924, William Hewat from the Businessmen’s Party told the Dail the costs of developing the Ardnacrusha hydroelectric plant – at the time designed to serve the entire country’s needs – were based on a “Dublin supply”.

Conor Hogan from the Farmers Party added that judgment on the merits of the scheme should be “suspended” until it was proven that cheap power could be generated.

The cost of wind power is frequently highlighted as a reason not to implement the technology, with claims it adds to household bills.

Industry group, the Irish Wind Energy Association (IWEA), says it costs around €2m to install one megawatt of wind generation, which is sufficient to power about 850 homes. To encourage investment, the Government sets a guaranteed price for each megawatt produced at €99 per hour, called a REFIT (Renewable Energy Feed-In Tariff).

“People are not going to take the risk without reward,” IWEA chief executive Kenneth Matthews says. “Developers are helping governments meet renewable targets. The cheapest way to meet those targets is through wind.”

He says that a 5MW wind farm, “with everything going well”, produces power about 30pc of the time. The price paid for electricity generated from that farm is guaranteed at around €90/000. The public, therefore, subsidises wind energy though the REFIT scheme, but also by paying a charge on their bills called the Public Service Obligation (PSO). It amounts to €17.20 a year to subsidise wind power production, according to the regulator, the Commission for Energy Regulation (CER).

Customers also pay an additional €31.46 to subsidise the cost of having back-up power available, and to fund peat-burning plants, a payment which, for some reason, attracts little comment from opponents of wind.

There’s sound economic reasons for having these supports in place. Because wind generation is “free” and does not involve burning oil or gas, it helps reduce the price for all electricity customers. We currently avoid spending some €200m a year importing fossil fuels because of the amount of wind on the system.

Electricity prices are based on the “wholesale” price of power. Generators producing from oil, gas, hydroelectricity and other sources submit a bid price to the Single Electricity Market Operator (SEMO) to produce power in half-hour blocks the following day.

For example, the price could be €95 per megawatt hour (MWh) between 10am and 10.30am, rising to €75 per MWh between 6pm and 6.30pm. The cheapest power available at a given time is transmitted by EirGrid, the national grid operator, and all power suppliers including ESB and Bord Gais “draw” from this pool of electricity to supply their customers.

The ‘average’ price of power per half-hour block is paid to all the generators. When the wind is blowing, there is less need for conventional power, which reduces prices.

But key to the argument for wind is security of supply. Ireland is at the end of a very long pipeline, and having an indigenous source of energy gives us some comfort in the event of global shortages or political turmoil resulting in supplies being cut off.

That said, those opposed to wind farms have a range of legitimate concerns. There are issues involving shadow and flicker caused by the turbines, the thoroughbred industry has raised concerns about the impact farms will have on our world-renowned industry, while estate agents have also warned that property prices fall when wind turbines are erected nearby.

There is also concern about large-scale farms for the midlands designed to serve the UK market. Not until the British and Irish governments reach agreement can these projects go ahead, and only after planning and other permissions are obtained.

Some changes to planning rules are proposed. Earlier this year, the Department of the Environment published a consultation paper on proposed new guidelines for wind energy development.

No turbine should be closer than 500m to a home, they say. If issues of shadow or flicker arise, the turbine must be powered down until weather conditions improve and the problem is eliminated. Energy Minister Pat Rabbitte says deployment of wind energy is a hedge against future price rises. “If you’ve a rich, indigenous resource capable of being exploited, why wouldn’t you use it?” he says.

Even in a worst-case scenario, that fossil fuel prices plummet and wind ends up being more expensive, we will at least have reduced greenhouse gas emissions by avoiding burning fossil fuels. Given that turbines have a lifespan of about 25 years, when they come to the end of their lives we can always take them down.
Potential for new jobs but real winner will be the consumer

Shane Phelan
Public Affairs Editor

THERE will be many economic benefits from the further development of the wind energy sector in Ireland.

The Irish Wind Energy Association (IWEA) estimates energy companies will invest €4.5bn in the sector in the next six years.

But while there is potential for creating thousands of jobs, in the long term, the economic benefits of wind energy will have less to do with employment on the wind farms themselves and more to do with spin-off jobs, tax revenues and local government rates.

An IWEA survey from last September showed that 3,407 people were working full time in the sector and 60pc of its members planned to recruit during 2014.

But estimates on the potential for job creation vary wildly. It all depends on the speed with which the industry expands.

With so many plans in the mix, an ESRI/Trinity College study published last week gave three different scenarios for job creation prospects.

It found there was potential for the industry to support more than 8,300 jobs by 2020 if Ireland meets its renewable energy targets and installs 4,000MW of wind energy.

But if Ireland added an additional 4,000 (megawatts) MW of onshore and offshore wind energy capacity for export purposes, there would be potential for 17,000 jobs.

Under an even more ambitious scenario, if 12GW of installed wind capacity were to be developed there would be the potential for 22,700 jobs within the sector and 12,600 in other sectors of the economy as a result.

Although estimates for job creation vary, the consensus among industry watchers is that even after the expected
explosion in wind farms over the next few years, the actual numbers directly employed to service and maintain turbines will remain relatively small.

The simple reason is that you don’t need a lot of people to run a wind farm.

Bord na Mona plans to open two wind farms in Leinster by the end of the year, at Mount Lucas in Co Offaly and at Brukana at Templetuohy Bog, on the borders of counties Tipperary, Kilkenny and Laois.

Although there were at least 150 people working on Mount Lucas at the height of its construction, only around 20 people will be employed between there and Brukana when they both begin producing electricity.

In the short to medium term, engineering firms who have got into the sector early will do well. For example, one company specialising in wind-farm development, Tralee-based Moriarty Civil Engineering Contractors, has seen its workforce triple from 100 to 300 in the past four years.

But elsewhere, there is little in it for the indigenous manufacturing industry. As yet there is no Irish company with the capacity to build industrial-size turbines, so the bulk of those will have to be imported. But cash-strapped local authorities will welcome the wind farms with open arms. Commercial rates paid to councils last year totalled around €12m and this figure is expected to be €27m-a-year by the end of the decade.

Landowners will also do well. But John Lynch, manager of renewable energy at Bord na Mona, reckons the biggest winner could be the consumer. He believes it will result in less of a reliance on conventional power stations, which are more expensive to operate.

“While you are importing turbines to generate electricity, you are then effectively substituting that electricity for what would otherwise be imported oil or gas,” he said.

TOMORROW
The in-depth look at the issue of wind power continues tomorrow in the Irish Independent. We examine the concerns of communities affected by turbines, look at the planning system, and speak to a community group which owns a wind farm.
WIND FARMS IN NUMBERS

CURRENT POSITION

1992
First wind farm - Ballacorrick, Co Mayo. Connected in October 1992 (6.45MW capacity)

176
Current wind farms

2,004.82MW
Capacity on stream

1,303,133
Number of homes capable of being powered

0.02MW
Smallest wind farm in Lios na Carraige, Cavan (Largest in Knockacummer, Cork - 87MW)

THE FUTURE

183
Number of wind farms to come on stream in 2014

2,696.68MW
Number of wind farms to come on stream by 2020

1,752,842
Capacity due to come on stream

0.02MW
Number of homes to be powered

Smallest wind farm in Shalvey Poultry, Cavan (Largest - Oweninney, Mayo - 198.90MW)

Walkers on the route of the annual SSE Airtricity Meentycat Wind Farm walk in Co Donegal.

CLIVE WASON
Energy efficiency in our homes should be priority

Campainer's view

Andrew Duncan

IRELAND has set very high renewable energy targets and is on course to meet them, but at what cost? It is now time to rethink our energy policy.

The wind lobby seems to have successfully convinced the current administration that pursuing a Green Party/Fianna Fail policy is in the best interests of the country.

Wind farming to date has been developer led, with site selection based on the most economical option. ESB Networks follows with the infrastructure, and the taxpayer picks up the bill.

In contrast, opposition in the UK has resulted in the British government rowing back on its onshore wind programme, meaning it is unable to meet its renewable energy targets.

In 2011 Deputy British Prime Minister Nick Clegg urged the authorities here to construct wind farms on the west coast. Two private companies, Element Power and Mainstream Renewable Power, and the state-owned Bord Na Mona, have now announced plans for up to 3,000 turbines in the midlands to export power to the UK.

I believe the continued expansion of wind power in Ireland may only be possible if an export market exists, due to the associated ancillary infrastructural costs.

Most people are used to seeing relatively small wind turbines set on hills in the distant background. A setback distance from neighbouring dwellings of 500m was, and is, recommended in guidelines dating back to 2006.

But low wind speeds in the midlands will require much bigger turbines of 180m or more. In the first draft of new guidelines issued this year, the setback distance has not increased in tandem with the evolving technology – it has remained at 500m.

Noise has driven some residents from their homes, homes which may be worth significantly less after wind farm developers move into the area. Indeed, one of the first questions many prospective purchasers in the midlands are now asking is: “Are wind farms planned in the vicinity?”

Industrialisation of a rural landscape on this scale is likely to have a polarising effect on property values and people. However, the people are mobilising.

Community groups are forming throughout the country and now number in the hundreds.

The justification for this imposition on communities is primarily based around job creation.

Andrew Duncan: policy rethink needed

A recent report commissioned by turbine manufacturer Siemens and the Irish Wind Energy Association has concluded that up to 35,000 jobs could be created in Ireland in the wind industry.

Based on the industry standard of 0.3 permanent jobs per turbine, this will require more than 100,000 turbines.

A study by Verso Economics in the UK, undertaken in 2011, concluded that for every job created in the wind industry, 3.7 jobs were lost. This year it also emerged that every job in the wind industry in Scotland is subsidised to the tune of £100,000 per annum.

Ireland’s demand for electricity peaked in January 2010 at 5040 megawatts (MW), on what was an exceptionally cold day. Wind averaged 50 MW.

Wind is unpredictable, and despite massive subsidies, developers at times complain of poor wind years and correspondingly poor cash flows.

Ireland rightly seeks to secure its future energy supply, but this supply should involve a varied and flexible energy mix. The cheapest and cleanest energy of all is that which is not used. Retro-fitting existing and new homes could create real sustainable jobs.

Only after we have addressed our energy efficiency should we even contemplate any more wind penetration, let alone be faced with this ludicrous plan to meet Britain’s environmental commitments.

Andrew Duncan is a qualified auctioneer with a BSc in Property Studies from DIT Bolton Street. Based in Mullingar, he is a Fine Gael candidate in the upcoming local elections. He is also the spokesman for the Lakelands Windfarm Information Group.