Response to Irish Government’s 
Consultation on May 2014 Green Paper on 
Irish Energy Policy

by

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BW Energy

On behalf of ReThink Pylons (RTP)

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2) EXECUTIVE SUMMARY:

- Since the current Irish energy strategy was established by the 2007 Energy Policy Framework\(^1\) ‘Delivering a Sustainable Energy Future for Ireland’, there have been profound economic and technological changes to the Irish energy economy. Recession has motivated Irish citizens and industry to focus on the cheapest ways to tackle climate change and decarbonisation.

- Major progress has been made towards achieving 2020 EU climate change targets especially in electricity generation from renewable sources (predominantly onshore wind).

- By 2014 standards, however, the ‘all wind’ strategy devised in 2007 to meet 2020 climate change targets is outdated. It is an unnecessarily expensive way to cut Irish carbon emissions and does not offer value for money to hard pressed Irish households and industry.

- Today there are three mature, tried and tested types of renewable power production – onshore wind, biomass and household solar photovoltaics (PV) – which could help Ireland meet this challenge. In 2007, there was only one - onshore wind.

- Renewable biomass and household solar PV today offer cheaper ways to reduce carbon emissions than the current “all wind” strategy.

- Developing renewable biomass and household solar PV can create more Irish jobs than the current “all wind” strategy – while protecting Irish agriculture, bloodstock and tourism industries.

\(^1\) The strategy was devised to enable Ireland to deliver 16% of energy demand from renewable sources by 2020 as well as reduce greenhouse gas emissions. It envisaged renewable sources delivering 40% of electricity by this date.
• Converting coal fired Moneypoint to biomass cuts carbon at less than half the cost of more wind power. Developing a domestic biomass supply chain for Moneypoint could double the number of Irish jobs created compared to more wind power and rejuvenate Irish forestry.

• Irish families deserve to be empowered to tackle climate change more cheaply through support for household solar power and more energy efficiency. Supporting household solar power production delivers carbon savings 25% more cheaply than additional wind power.

• Persevering with the 2007 ‘all wind’ strategy and associated proliferation in onshore wind farms and pylon transmission networks threatens lasting long term economic damage to industries in Ireland’s heartland - its world class food production, tourism and bloodstock sectors.

3) CHANGES SINCE 2007 IRISH ENERGY POLICY FRAMEWORK:

ReThink Pylons (RTP) welcomes the review of Irish energy policy and the opportunity to build on the renewable energy policies that by the end of 2012 had enabled Ireland to produce 19.6% of electricity from renewable sources, 5.2% of renewable heat and 2.3% of renewable transport. The renewable electricity strategy is essentially an ‘all wind’ strategy with 76% of renewable generation coming from onshore wind in 2012.

This review of Irish energy policy is essential. Since the 2007 Energy Policy Framework, there have been profound economic and technological changes to the global and Irish energy economies. Key trends have included:
• The US shale gas ‘revolution’ has led to plentiful, cheap low carbon gas displacing high carbon coal in the US power generation market. As a result, cheap US coal has increasingly been exported to Europe undercutting more expensive but lower carbon European gas. This has made achieving EU decarbonisation targets more difficult.

• Severe global financial recession has led to greater household and industry awareness of energy costs.

• Sustained EU consensus on the need to address climate change and to decarbonise despite the severe financial crisis.

• ‘Coming of age’ technically and financially of three renewable power generation technologies: onshore wind, biomass and solar PV.

• A 27% increase in real energy prices for Irish households between 2007 and Q1 2013 especially reflecting dependence on imported fuel oil and gas for heating and high domestic electricity prices.\(^2\)

Ireland is now at an important crossroads. Since 2007, the need to deliver decarbonisation more cost effectively to hard pressed Irish households and industry has become paramount.

Continuing to pursue a course of importing high carbon but cheap American coal, while at the same time providing subsidies to onshore wind power, threatens to undermine the substantial Irish decarbonisation achievements to date.

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Fortunately, the post 2010 development of cost effective and large scale renewable electricity generation from biomass and solar PV offer Ireland ways to meet the challenge of climate change much more economically.

**a) HIGH IRISH ELECTRICITY PRICES:**

According to EuroStat, the EU Statistical Service, at the end of 2013 Irish industrial and domestic electricity prices were on average 42% above the EU average and were the third and second highest in the EU respectively.

The high cost of Irish electricity reflects both the continuing high dependence on imported fossil fuels, and the support mechanisms for indigenous renewable (predominantly onshore wind) and peat generation.

**Figure 1: Irish and EU domestic electricity prices.**

![Graph showing European Domestic Electricity Prices from 2002 to 2013](image)

High Irish electricity prices have coincided with a severe recession in which households and businesses continue to face a variety of economic pressures.
In March 2014, for example, the Irish Central Bank reported that in Q4 2013\(^3\), 18% of households were facing mortgage arrears with debts for those in arrears for over 360 days amounting to €12 billion. This followed analysis in January 2014 from Yvonne McCarthy of the Irish Central Bank that “with about one-fifth of residential mortgages in arrears, the Irish mortgage crisis is arguably the most profound in the OECD...Average house prices in Ireland have fallen by over 50% since they peaked in 2007 and current estimates suggest that up to 50% of mortgages could be in a position of negative equity”\(^4\).

The impact of rising energy prices at a time of severe financial recession can be seen in Irish energy poverty.\(^5\) In 2011 the Department of Communications, Energy and Natural Resources estimated that 20% of all Irish households (approximately 317,000 households) experienced energy poverty in 2009\(^6\) This was 25% higher than the comparative 2009 figure for the UK (where 16% of households were estimated to be in fuel poverty).\(^7\)

Energy poverty is clearly a result of the multiple economic pressures faced by hard pressed Irish households including high electricity prices. As Yvonne McCarthy of the Irish Central Bank commented “Distressed borrowers are quite different from performing borrowers – a high proportion of distressed borrowers have been affected by affordability shocks such as reduced incomes, unemployment and detoriating employment conditions”.

High electricity prices not only cause hardship for householders but also for businesses – reducing industrial competitiveness and weakening

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\(^4\) Disentangling the Mortgage Arrears Crisis: The role of the labour market, income volatility and negative equity, January 2014 by Y.McCarthy of the Irish Central Bank.

\(^5\) Defined as the need to spend more than 10% of household net income on fuel to achieve an acceptable level of comfort and amenity.

\(^6\) Department of Communications, Energy and Natural Resources 2011 report ‘A Strategy for Affordable Energy in Ireland based upon figures from the Department of Social Protection.

\(^7\) 2011 Annual Report on Fuel Poverty by the Department of Energy and Climate Change.
Ireland’s attractiveness to foreign direct investors. This is particularly important as the Irish SME sector remains vulnerable to rising costs. In June 2014 the Irish Central Bank’s SME Market Report stated that the Irish SME sector currently has a total default of €9 billion, a rate of 26% by loan count and 41% by loan balance.

b) DEVELOPMENTS IN SUSTAINABLE BIOMASS AND RESIDENTIAL SOLAR PV OFFER GENUINE ALTERNATIVES TO IRISH ONSHORE WIND FOR THE FIRST TIME:

i) Biomass co-firing or full conversion now proven:

Changes in biomass technology and the international supply chain since 2011 mean biomass conversion at Moneypoint (915 MW) or biomass co-firing at Moneypoint and the three peat stations (West Offaly, Lough Ree and Edenderry) now represent real options for meeting Ireland’s 2020 renewables target.

The emergence of sustainable biomass as a large scale renewable source of electricity follows the scaling up of the international biomass market and technical advances in boiler design and operation since 2010. Long term fixed price contracts are now available for wood pellets, ensuring security of price and supply if Ireland does not decide to develop its own indigenous biomass supply chain.

The successful conversion of Drax coal fired power station in the UK has shown that biomass now represents a real, practical alternative to more onshore wind. Drax is Western Europe’s largest power station (3,960 MW) and was solely coal fired until 2010. Technological and market developments in biomass have meant Drax is now converting 1,980 MW (50% of its 3,960 MW capacity) to biomass generation following an effective co-firing transition. The first generating unit has been successfully converted (on time and on budget), and has been operating
for over a year. This conversion is equivalent to twice the total generation capacity of the 915 MW at Moneypoint.

ii) **Collapse in residential solar PV costs increases attractions to lower solar yield European countries:**

Residential solar PV is a well established renewable generation technology. The key change since the 2007 Energy Policy Framework was established has been the dramatic fall in equipment costs due to increased manufacturing experience and scale benefits in extremely competitive manufacturing (especially in China). Total installed costs of these devices have halved since 2008 meaning that even for Northern and Western European countries with lower solar yields, residential solar power is a cost effective alternative to onshore wind.

**Figure 2: Decline in Solar PV Costs.**

Significantly, Ireland to date has failed to follow the lead of other Northern and Western European EU Member States who have
successfully capitalised on the collapse in solar equipment prices and introduced support mechanisms for residential solar PV.

Within Northern Europe, Denmark and the United Kingdom (collectively representing over 2/3rds of the population in EU Northern Europe), who have similarly low solar yields as Ireland, have supported residential solar PV. Furthermore, all of the Western European EU Member States including Germany, the Netherlands and Belgium (where solar yields are not markedly higher than in Ireland) have significant residential solar PV programmes.

Figure 3: Solar energy over Europe.

Financial and technological changes since the 2007 Energy Policy Framework now mean that Irish citizens want and deserve the
opportunity to tackle climate change more cost effectively at a household level. This can be delivered by a combination of residential solar PV power generation and greater energy efficiency.

c) CONSISTENCY IN REDUCING IRELAND’S CARBON FOOTPRINT?

Despite the need to reduce dependence on fossil fuels especially high carbon imported coal, Ireland actually increased the carbon content of the input fuels used to generate electricity in 2012 compared to 2011. This was because it used a higher proportion of coal in 2012 at the expense of natural gas. As a result, the overall carbon content of the electricity generation fuels went up as coal is almost twice as carbon intensive as natural gas.

In 2012, according to the May 2014 Green Paper, coal increased its share as a power generation fuel to 20% (up 18%) at the expense of natural gas (down from 53% to 49%) whilst the share from zero carbon renewable sources was unchanged (at 19%).

Figure 4: Electricity generation fuel mix 2011-2012 (gross electricity consumption)\(^8\) shows increase in coal use and a decrease in gas burnt to produce Irish power.

\(^8\) May 2014 ‘Green Paper on Energy Policy in Ireland’.
The reason for the increase of the carbon footprint of the Irish electricity sector was the purchase of cheap American coal. The shale gas ‘revolution’ in the US since 2007 has led to a switch from carbon intensive coal fired generation to low carbon gas fired generation in the US. This shift has flooded the EU market with cheap coal. US power generators are now burning low carbon US gas and exporting high carbon coal overseas.

Given that Irish consumers are paying subsidies through Renewable Energy Feed in Tariffs (REFIT) to decarbonise the power sector, the buying of cheap, high carbon imported coal to fuel Moneypoint appears inconsistent and contradictory to the decarbonisation strategy.

Effectively, hard pressed Irish taxpayers are paying to support a wind dominated Irish decarbonisation campaign whilst the ESB at the same time is actually increasing the carbon footprint of the power sector and profiting from cheap US coal. This strategy increased the overall carbon content of electricity generation in 2012 compared to 2011 despite the subsidies paid to support renewable generation.

Ireland should not undermine its considerable achievements to date in battling carbon emissions by continuing to fuel its largest and only coal fired power station, Moneypoint, on high carbon imported coal at the expense of much lower carbon natural gas. This is clearly at a variance with Irish decarbonisation objectives.

Replacing coal fired generation at Moneypoint with sustainable zero carbon biomass is a strategically sensible option and would enable Ireland to meet the 2020 EU renewable electricity target at a single stroke. Alternatively 30% biomass co-firing at Moneypoint combined with co-firing at the three peat fired power stations (West Offaly, Lough Ree and Edenderry) would also enable Ireland to meet the 2020 EU renewable electricity target.
Biomass and household solar PV power production can now deliver Irish decarbonisation more cost effectively than onshore wind. Furthermore, both these approaches can create more Irish jobs using indigenous resources without adversely impacting the Irish tourism, bloodstock and agricultural industries.

4) RE-BALANCING THE RENEWABLE POWER GENERATION MIX:

In this submission to the Green Paper consultation, ReThink Pylons deliberately focuses upon renewable electricity generation. This is not only because the most significant changes in battling climate change since the 2007 Energy Policy Framework have occurred in the area of renewable power production but also because it offers a way to empower cost conscious Irish citizens to reduce carbon emissions more cheaply and to involve them directly in the policy.

To date, meeting the renewable electricity generation target has been heavily dependent on onshore wind. In 2012, onshore wind accounted for 76% of Irish renewable power generation, equivalent to just under 15% of total electricity generation. This is entirely understandable as, back in 2007, onshore wind represented the only realistic large scale renewable generation option for Ireland.

However, today there are now three tried and tested types of renewable power production – onshore wind, biomass and household solar photovoltaics (PV) – available to help Ireland meet this challenge. In 2007, there was only one - onshore wind.

As a result, a key question is: Is doubling onshore wind capacity the best way to meet 2020 targets?

To answer this question, this submission compares three practical renewable generation approaches to meeting Ireland’s 2020 renewable electricity targets:
• Continuing with wind exclusively (i.e. adding a further 1900 – 2,400 MW of wind capacity).
• Conversion of Moneypoint to biomass (wood pellets).
• Promotion of solar PV for the residential sector.

Each strategy has a genuine track record that means it is both viable and practical to cost in the context of meeting Ireland’s 2020 targets and tackling Irish climate change in the longer term.

This analysis uses three key indicators to compare the three approaches:

• Cost of carbon abatement.
• Irish new jobs creation to meet 2020 targets.
• Additional impacts.

This submission does not seek to weight the three measures. From an economic perspective, however, the three decarbonisation strategies can be most objectively compared on the basis of their relative costs of carbon abatement. This is particularly important in Ireland given the high electricity prices already being paid by industrial and domestic consumers.

Therefore it is important that we compare the costs of reducing carbon of the three different renewable technologies, that we evaluate the potential increase in employment to meet the 2020 EU renewable electricity target, and address additional environmental and social impacts.
a) **THE COST OF REDUCING IRISH CARBON BY RENEWABLE TECHNOLOGIES:**

<table>
<thead>
<tr>
<th>Irish technology Choice</th>
<th>Cost of reducing Irish carbon</th>
<th>Cost saving vs. Irish wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>More onshore wind</td>
<td>€135 /tCO₂</td>
<td></td>
</tr>
<tr>
<td>Biomass conversion at Moneypoint</td>
<td>€60 / tCO₂</td>
<td>~55% cheaper</td>
</tr>
<tr>
<td>Domestic solar PV</td>
<td>€100/ tCO₂</td>
<td>~25% cheaper</td>
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The ‘cost of carbon abatement’ identifies on a clearly comparable basis, the cost of avoiding carbon emissions, depending upon the renewable generation technology that is used to replace fossil fuel generation. The emissions reduction cost is measured in terms of Euro per tonne of CO₂ abated (€/tCO₂) of each strategy.

1) **Onshore Wind:**

Technical and financial changes since 2007 mean that the 2007 ‘all wind’ strategy is now the most expensive way to cut Irish carbon emissions of the three strategies. This is because it will be far more difficult to absorb the additional 2,000 MW or so of wind generation needed to reach the 40% target than it was to accommodate the current 1,600 MW. EirGrid
have recognised that it will be necessary to build the €3.2 bn Grid 25 system to absorb so much wind.

However, EirGrid has not been so forthcoming on the costs of operating the system on a day to day basis with so much variable power. This is because the amount of reserve generation required to operate the system securely will have to increase substantially at additional cost. To date\(^9\), the Irish system’s reserve requirements have been dominated by the risk that one of the existing fossil stations will disconnect.

In future, the amount of wind generation will become the determining factor so the associated, additional costs should be included in any such comparative analysis.

In addition, it is by no means clear that EirGrid will be able to operate the system securely. The Irish Academy of Engineers\(^{10}\) has warned about the stress this unparalleled quantity of variable power will put upon on a relatively isolated system. (Experience in the similarly isolated power network of the U.S. state of Texas confirms this concern.)

2) Biomass conversion at Moneypoint:

**Sustainable biomass at Moneypoint cuts Irish carbon emissions at less than half the cost of more wind power.** It is so much cheaper because, unlike more wind power:

- It uses the existing power system and does not threaten the integrity of the transmission system avoiding €3.8 billion reinforcement capital costs.

- It does not require additional reserve generation to back up when the wind does not blow.

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\(^9\)See Engineers Ireland, “RES-E Wind is not the only option?, AAL White, July, 2014

\(^{10}\)See Irish Academy of Engineers, 2011.
- It displaces coal, which is highly CO\textsubscript{2} intensive. Wind, on the other hand, displaces gas, which emits less CO\textsubscript{2} when burnt.

3) Residential solar PV:

Using household solar PV is 25% cheaper than more onshore wind.

Despite Ireland’s reputation for wind and rain, rather than sun, the economics of residential solar PV are now more attractive than more onshore wind. This reflects how solar costs have collapsed and the generous wind support tariff.

b) NEW IRISH JOBS CREATED BY MEETING 2020 TARGET:

<table>
<thead>
<tr>
<th>Technology</th>
<th>Additional jobs</th>
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</thead>
<tbody>
<tr>
<td>More wind power</td>
<td>~2,500</td>
</tr>
<tr>
<td>Local biomass supply for Moneypoint</td>
<td>~6,000</td>
</tr>
<tr>
<td>Domestic solar PV installation</td>
<td>~1,500</td>
</tr>
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- Developing a domestic biomass supply chain for Moneypoint could provide double the number of regular Irish jobs compared to more wind power:
- Ireland, despite its excellent climatic conditions to grow biomass\textsuperscript{11}, is one of the least forested countries in the EU.
- Developing a local biomass supply chain is an excellent opportunity to increase employment in Irish forestry by at least 50%.

- Around 400,000 residential solar PV systems could be installed by 2020 giving employment to 1,500 full time staff and householders the opportunity to participate in Ireland’s campaign against climate change.

- Household solar PV on a quarter of Irish houses could deliver around 27% of the additional renewable generation needed alone.

\textbf{c) ADDITIONAL IMPACTS:}

- More wind power - negative:
  - Increased risk of transmission system instability and power blackouts.
  - Negative visual impact with potential reductions in local property values and implications for Irish tourism, bloodstock and agriculture industries.

- Biomass conversion at Moneypoint - neutral:
  - Utilises the existing power transmission infrastructure.

- Household solar – positive:
  - Empowers Irish citizens and families to get benefits from fighting climate change. 400,000 domestic installations are

\textsuperscript{11} See Paterson Climatic Index, Forestry Resources in Europe 1950-1990, 1994
not likely to impose additional reserve requirements on the transmission system.

5) ENERGY EFFICIENCY AND EMPOWERING THE IRISH HOUSEHOLDER:

Since the 2007 Energy Policy Framework was established, the potential for Irish households to commit to greater energy efficiency has increased driven by higher energy prices, less disposable income, ongoing concern over climate change, and greater financial innovation.

a) STRATEGIC SIGNIFICANCE OF THE RESIDENTIAL SECTOR TO MEETING IRISH CLIMATE CHANGE TARGETS:

The strategic importance of the Irish residential sector to reducing carbon emissions is reflected in the fact that it accounted for 27% of all primary energy used in Ireland and was the second largest energy using sector after transport in 2012\(^\text{12}\).

According to the Irish Academy of Engineering\(^\text{13}\), a 10% improvement in domestic energy efficiency could deliver around a quarter of the required 2020 target reductions in final energy consumption and carbon emissions.

b) SCOPE FOR DOMESTIC ENERGY EFFICIENCY AND CARBON SAVINGS:

There are several reasons to believe that there are substantial and readily deliverable carbon emissions savings to be delivered in the Irish residential sector:

- Despite the fact that Ireland has the youngest housing stock in the European Union\(^\text{14}\), concerns exist that compliance to Irish building energy regulations (BER), was rather lack lustre during

\(^{12}\) “Energy in Ireland, Key statistics 2013”, SEAI
\(^{14}\) European Housing Review, Royal Institution of Chartered Surveyors 2008
the ‘Celtic Tiger’ decade when around 25% of the present housing stock was built. Prior to the 2011 insulation standards in Irish building regulations, Irish BER had historically lagged those in other European countries.

- The sector uses a significantly higher proportion of high carbon fossil fuels in the energy mix, compared to other EU countries.

Figure 5: Final residential fuel mix for selected EU countries (2011) showing Ireland’s greater dependence on carbon rich fuels for household energy.


Two factors contribute to Irish households producing almost double the amount of carbon dioxide (CO2) emissions than the EU average and almost 30% higher than the UK:

- The fuel used to generate energy for Irish households is significantly more carbon rich than in other EU countries with a greater dependence upon oil, coal and peat. In particular, oil usage for

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central heating in Ireland is close to twice that of natural gas. This is almost the exact opposite of the rest of the EU where average gas usage in the residential sector is 2.7x higher than oil use.

- Irish dwellings were 39% larger than the European average in 2010.  

As a result, Irish householders potentially have a much larger role to play in their country’s decarbonisation than in other EU countries where households have much lower carbon footprints.

Figure 6: High Irish CO₂ Emissions per dwelling (climate corrected) (1990-2010).

Source: Energy in the Residential Sector, Sustainable Energy Authority of Ireland (SEAI).

A June 2012 study of the impact of the Better Energy Homes scheme by Scheer, Clancy and Ni Hogain¹⁷ showed significant potential for energy and carbon savings from domestic energy efficiency. Energy savings amounted to 21% in a sample of 210 dwellings supplied with gas. However, whilst it is clear that there is substantial energy and particularly carbon savings to be achieved from more effective domestic Irish energy efficiency, according to the Sustainable Energy Authority of Ireland,

Ireland currently lacks a comprehensive understanding of the energy performance of the Irish residential housing stock. As a result, the effectiveness of energy efficiency schemes in targeting the highest priority segments for decarbonisation and other social benefits (such as addressing fuel poverty) is less than optimal. A much broader understanding of the scope for energy savings across different fuels and more generally of the energy performance of the Irish housing stock is a key priority.

c) HOW ENERGY EFFICIENCY COMPARES ON COST OF CARBON ABATEMENT, NEW JOBS CREATION AND OTHER IMPACTS:

The International Energy Agency (IEA) has described energy efficiency as the cheapest and most efficient form of greenhouse gas\textsuperscript{19} abatement.

- The cost of carbon savings for energy efficiency measures is very attractive. Not only is carbon saved by lower energy use but, depending upon the cost of the retro-fit measure, energy bills could also fall, even after paying for the measure to be installed and financed; i.e. the effective cost of carbon saving is below zero.

- New homeowners and renters are willing to pay for increased energy efficiency. Recent research, published in January 2014\textsuperscript{20}, found evidence that, across both the sales and rental segments of the Irish property market, there is a price premium associated with improved energy efficiency. Furthermore, it empowers Irish families to address climate change by reducing their own energy use and carbon footprint.

\textsuperscript{18} ‘Energy in the Residential Sector’ SEAI 2013.

\textsuperscript{19} Worldwide Trends in Energy Use and Efficiency IEA 2008.

\textsuperscript{20} Hyland, Lyons and Lyons; ‘The value of domestic building energy efficiency-evidence from Ireland, 2013’; Economic and Social Research Institute (ESRI), 2014.
## Energy efficiency scorecard VS. More onshore wind

### Energy Efficiency:

<table>
<thead>
<tr>
<th>Cost of carbon abatement</th>
<th>Less than €40 /tCO₂</th>
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<tbody>
<tr>
<td>New job creation to 2020</td>
<td>~2,100</td>
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<tr>
<td>Other impacts</td>
<td>Benefits resale value.</td>
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<tr>
<td></td>
<td>Bill reduction</td>
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<td></td>
<td>Family participation</td>
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### More onshore wind:

<table>
<thead>
<tr>
<th>Cost of carbon abatement</th>
<th>€135 /tCO₂</th>
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</thead>
<tbody>
<tr>
<td>New job creation to 2020</td>
<td>~2,500</td>
</tr>
<tr>
<td>Other impacts</td>
<td>Bill increases</td>
</tr>
<tr>
<td></td>
<td>Consumers subsidise business investors</td>
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</table>

d) NEED FOR GREATER FOCUS ON IRISH HOUSEHOLD ENERGY EFFICIENCY:

According to the Irish Academy of Engineering\textsuperscript{21} the overriding focus of the Irish Government to date has been on the renewable electricity target, and not the broader targets to reduce final energy consumption and carbon emissions through demand side management. Some €8 billion has been invested in Ireland on supply side projects (mainly in renewable energy and upgrading electricity transmission) while only €1 billion has been invested in demand side initiatives towards achieving reductions in CO\textsubscript{2} emissions from sectors not covered by the European Emissions Trading Scheme.

Historically, and especially in a deep recession, households have been put off energy efficiency by the initial capital outlay involved. Financial innovation has started to lower this barrier with the evolution of ‘pay as you save’ schemes. Such financial innovations should certainly be more fully explored to help Irish households to reduce energy use, save money and tackle climate change fundamentally.

6) CONCLUSIONS:

Ireland’s current energy strategy, to comply with its renewables targets by concentrating on wind power, was devised in the mid 2000s. This strategy has been implemented successfully and Ireland has 1,600 MW of wind capacity, enabling almost 20% of all electricity to be generated from renewable sources. That was an effective strategy for its time.

Since 2007, however, the economic climate has changed dramatically. There is now a far greater need to be cost – as well as carbon – conscious. Fortunately, the technological and commercial environment has evolved so that there are now cheaper and better ways for Ireland to meet its

renewables targets – namely, firing biomass in existing coal power stations and domestic solar PV. Switching to this broader strategy would also enable a wider section of Irish society to benefit by participation in the energy sector. These are the best options for Ireland at this time – and will continue to meet Ireland’s needs for a low-carbon energy supply in the future.

BW Energy