



# Irish wind policy- time to rethink

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**May 2015**

## **Executive Summary: Biomass can deliver Irish targets more effectively than wind.**

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- Ireland has an 'all wind' strategy to meet EU 2020 renewable 'green' power targets.
- Requires doubling of current 200 wind farms (2,000 turbines) and over 700 km of high voltage transmission lines carried by industrial scale pylons in the countryside.
- Doubling wind power directly threatens vital Irish heartland industries – tourism and equine.
- It is technically difficult, outdated and unnecessarily expensive.
- Fortunately technology today offers better solutions.
- Conversion of coal fired Moneypoint and peat power stations to sustainable biomass – re-engineering existing plant - is cheaper, requires no change to transmission infrastructure and no new power stations.

## Why wind power at all?

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- To meet EU's 2020 renewable energy target Ireland requires 40% of electricity from renewable sources (hydro, sustainable biomass, wind, wave, tidal and solar).
- In 2007 Ireland decided on an 'all wind' strategy.
- By end 2014 Ireland was just over half way to achieving 2020 target.
- This required around 200 new, operational wind farms.

## What does this actually entail for rural Ireland?

- **Doubling the number of wind farms** - another 200 operational wind farms meaning around **2,000 more wind turbines**.

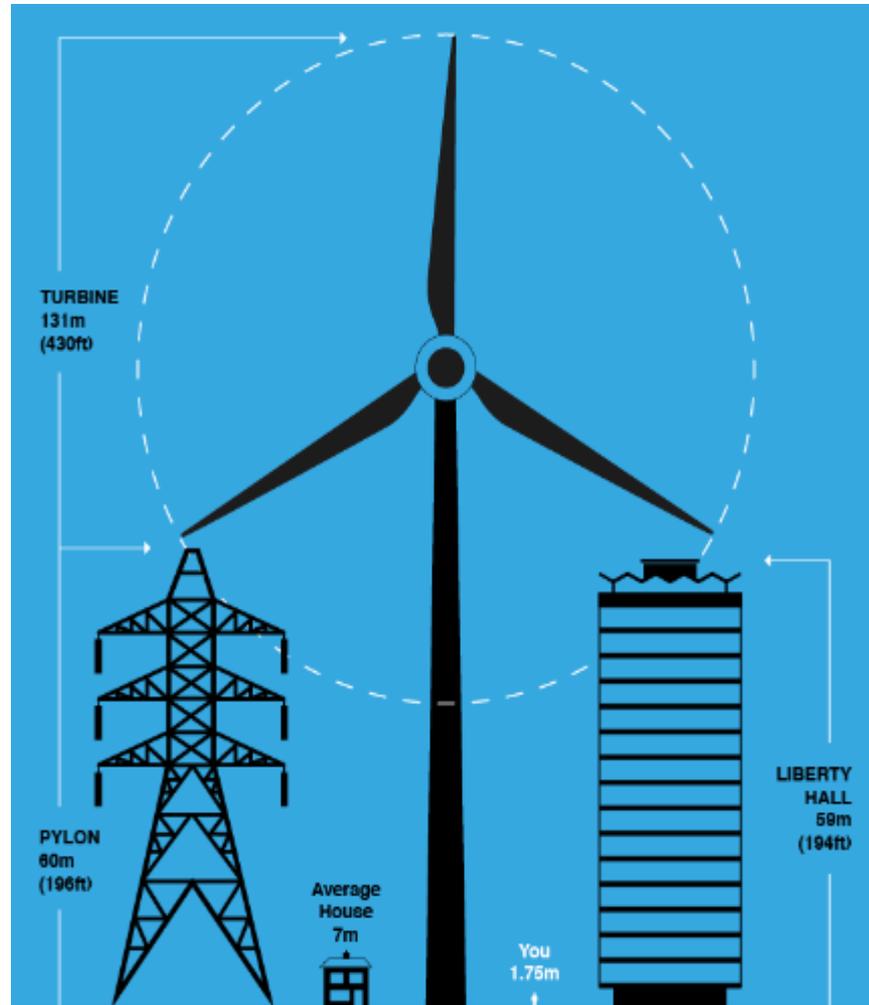
**AND**

- **Another 700 km** of high voltage transmission lines.

**AND**

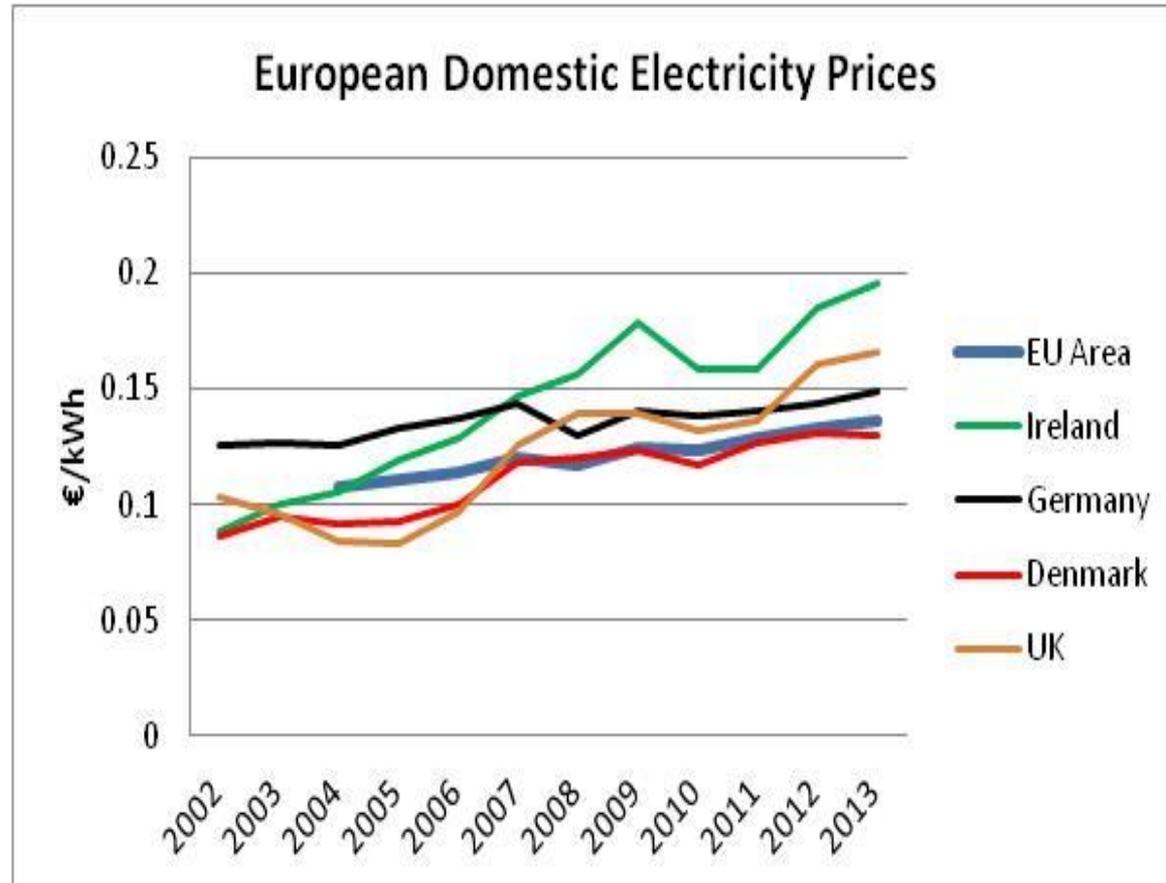
- **Hundreds** of new 200 ft high electricity pylons to carry the wind power along high voltage cables.

## Wind turbines and pylons are industrial scale:



## Electricity prices already 42% above EU pre tax average (Source: EU Statistical Service , EuroStat):

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## Why doubling wind power is technically difficult and expensive:

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- Power cannot be stored yet at large scale on a commercial basis so supply and demand have to be balanced on a minute by minute basis.
- But wind power is **variable** i.e. it cannot be ramped up and down to meet demand (unlike sustainable biomass).
- Accommodating 40% variable power will be expensive because **in addition** to the 200 new wind farms:
  - **€3.2billion** (EirGrid's Grid25) to reinforce the transmission system.
  - Extra generation back up from gas fired stations for when the wind is not blowing.
- Which means even more wind power is expensive and not zero carbon.

## Today technology offers better alternatives: sustainable biomass

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- Large scale renewable power from sustainable biomass now a reality, proved at Drax in Yorkshire.
- Coal fired Moneypoint is Ireland's largest single source of greenhouse gas emissions.
- Converting existing Moneypoint and/or peat stations to sustainable biomass would meet Ireland's EU 2020 renewable power target:
  - Drax successfully overcame technical challenges of co-firing and full conversion on capacity 2x size of Moneypoint.
  - 80% carbon savings compared to burning coal, despite using U.S. imported biomass.
  - Long term contracts and genuine scope to develop Irish supply chain in conjunction with biomass imports.

## **More cost effective, without threatening Irish tourism and equine industries:**

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- **Biomass cuts carbon emissions 55% cheaper than more wind power because it:**
  - Re-engineers **existing** power stations.
  - Requires no change to the existing power transmission system.
  - Avoids €3.2billion costs for Grid25, as it does not threaten transmission system stability.
  - Can be managed to meet demand changes so does not require back up from gas power stations.
  - Less than half the cost to abate carbon than doubling onshore wind (€60/t CO<sub>2</sub> compared to €135/t CO<sub>2</sub>).
- **This means there would be no need for 200 more new wind farms and over 700 km of new high voltage power lines carried on pylons in heartland Irish rural areas.**

## Declare immediate halt to all new wind generation - Ireland has time and technology on her side:

- Ireland today has double the amount of power generation supply compared to demand.
- But more **renewable** power generation needs to be built to meet the EU 2020 target.
- Ireland has time to review new renewable generation, such as sustainable biomass, still keep the lights on and meet 2020 deadline.
- Declare an immediate halt to all new wind generation.