From:	James Smith
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То:	National Planning Framework
Subject:	Farming and renewable energy in 2040

The direction of Ireland's renewable energy tends to get bogged down in the wind turbines objections and for good reason. I think we can all agree wind turbines should be the last option for on-shore power generation. In fact, the EU is planning the largest wind farm in the world 100,000 MW in the North Sea with specially built islands to bring the electricity on-shore to Germany, Belgium and the UK (ref1). To put that in context, the Irish Wind Energy Association say 3,025 MW can power all the houses in Ireland (ref2).

Here are three other areas we need to focus our attention on when discussing wind turbines on-shore and consider a farming family on the west coast of Ireland.

Forestry:

The Government want to plant 10,000 hectares of forest per year, provide all the funding but no funding for other land use such as drainage or reclamation grants to increase lamb and beef output but to get Ireland to 20% managed forestry instead of food exports.

We all know the TB rates in deer, the TB rates in cattle in Wicklow and that the UK are going to test goats for TB. We will soon know what 500 acres of a felled forest looks like after heavy rains and what 100,000 culled deer look's like (ref 7).

The Government has also made it very clear they will not stop land sales to corporations to protect our farming way of life meaning Coilite could be sold to a foreign investment fund for example or an Ireland with 20% forest could be gradually sold off to investment funds in the 2nd, 3rd or 4th plantations (ref3).

We have 10% managed forest nearly twice that of New Zealand why do we need 20% managed forests?

Solar:

In Kilkenny we can see a planning application for a 100 acre solar farm with 25 MW output, one of nearly 300 such planning applications for solar in the last 12 months. I am assuming these solar farms will be investment funds and not part owned by the community or on Bord Na Mona or Coilte lands as indicated at the citizens assembly on renewable energy (ref4).

Agro-Forestry, tree type's/age and Bio-Mass:

Coolmore Stud and Ann-Mare O'Brien made the case for a Bio-Mass powered Ireland using our peat power stations for bio-mass and possibly the coal station in MoneyPoint which is the emergency battery of the grid at the moment with 6 months coal supply (ref 8).

Ireland imports €5-7 billion of fossil fuel per year or €50,000 per farm based on the CSO data of approx 120,000 farms in Ireland with an average of 30 hectare's.

In New Zealand they grow a poplar tree for 15-20 years and yield 200-250m3 of timber with only 100 tree's per hectare and each m3 is approx 300kgs (ref 5).

Can Irish farmers grow a tree every metre per hectare for 400 tree's to be harvested after 10 years for Bio-Mass wood or even more 1,000 tree's and farm as normal with sheep and beef?

if 4,000 farms per year plant the tree's and up to 40,000 farms in a 10 year supply rotation-how many tonnes per year is this and how many power stations can it supply?

Bord Na Mona built its power stations in Roscommon and Offaly for approx €220m a decade ago and today burn Bio-Mass from the USA and Africa.

Can farmers plant, harvest and deliver tonnes of Bio-Mass tree's to a co-op for say €12 a tonne?

Can our Agro-Forestry grants of €240 per hectare for 400-1000 tree's per hectare for 5 years be for 10 years and for Bio-Mass tree's and not timber plus the costs of fencing and planting? (ref 6).

This means farmers can select where to sow the tree's and be output driven for the tonnage of bio-mass while also increasing sheep and beef output with better grass crops. For example a wind break with 4 rows of tree's maybe one farmers choice while another farmer may decide to plant one field and another farmer may decide to plant rows of tree's across all fields.

I hope our Agriculture leaders in Government, Bord Na Mona, UCD, Teagasc, Coilite and international experience and research can provide a framework for farmers to power Ireland's renewable energy with biomass while also increasing our output of beef and lamb.

A new data centre can use 1% of the grid, 300,0000 new houses will be built and millions of electric cars will be sold and sheep/beef farmers stand ready to earn a living wage for their family from Solar or Bio-Mass and will lean in once we know and trust the way forward.

refl http://www.offshorewind.biz/2017/03/08/artificial-north-sea-island-plan-moves-ahead/

ref2 http://www.iwea.com/fags

ref3

https://www.independent.ie/business/farming/forestry-enviro/department-rules-out-restrictions-on-land-salesto-corporations-36274524.html

ref4

https://www.independent.ie/business/irish/elgin-energy-plans-100acre-kilkenny-solar-energy-farm-36311047.html

ref5

ref6

https://www.teagasc.ie/crops/forestry/grants/agro-forestry/

ref7

 $\underline{https://www.independent.ie/business/farming/forestry-enviro/hunters-should-be-brought-in-to-cull-up-50000-deer-in-wicklow-report-35468150.html}$

ref8

http://www.irishexaminer.com/ireland/horse-trainers-wife-annemarie-obrien-backs-converting-electricity-station-from-coal-to-biomass-387642.html