

IEA Bioenergy

Task42 – Biorefining in a Future BioEconomy

Ireland Country Report May 2017

Renewable Energy Developments

➤ RES H – budget provision announced for RHI (2020 RES H displacement target (12%)

- *Targets increase in biomass boilers in (non ETS) commercial sector*
 - *Market outlet may stimulate collection of residues / consolidation / biorefining applications*
- *Developing concepts for agri-residue / forestry residue solid fuel blends*
 - *Exergy systems to efficiently dry fibrous residues*
 - *Biomass Heating Solutions Ltd – FBC technology*
- *Community based bioenergy schemes – demo district heating schemes*



➤ Biogas – Economic review of biogas completed

- *Waste + Silage AD can supply c. 7.5% of gaseous energy demand, offset c. 5% of GHG's*
- *Issues:*
 - *Feedstock aggregation in fragmented agricultural market*
 - *Developing slurry filtration / nutrient recovery tech suite to for solids aggregat'n / liquor discharge*
 - *Developing routes to market – 1st of 42 potential grid injection points underway*
 - *Infrastructure Deployment – state funding mechanisms req'd to support deployment*
 - *Sustainability of silage digestion – improved nutrient recycling & vehicle energy*



Renewable Energy

➤ RES E – Emphasizes wind generation to achieve 2020 displacement target (40%)

- *New applications for REFIT subventions suspended pending RHI implementation*
- *New waste to energy pyrolysis technology being proven – Premier Green Energy*
 - *Continuous pyrolysis w/ syngas cracking to drive internal combustion CHP*
 - *Opening market to moderate scale waste processing*
 - *Feedstocks of variable character - RDF / dried sludge / fibrous wastes*
 - *1st deployment by yearend*



➤ RES T – Transport electrification/large load CNG are preferred routes for RES T

- *Gas Networks Ireland announced award to construct c 10 gaseous refueling points*
- *Compression cost is limitation factor*
 - *need low-energy-cost compression technology.... “waste” heat??*



Bio Economic Development Sectoral Development Strategies

Office of Taoiseach - Expected
Policy Statement on
Bioeconomic Development to
Underpin Increasing
Investment in Bioeconomic
Development



10/23/2017

SFI to invest €72m in four new research centres

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Updated / Thursday, 4 May 2017 15:36



Professor Mark Ferguson says the country needs to invest in areas of real potential to ensure future economic competitiveness

<https://www.rte.ie/news/business/2017/0502/871892-science-foundation-ireland/>

Bio Economic Development

Sectoral Development Strategy – Dairy

3 Research Institutes

➤ Food for Health Centre

- *Nutraceuticals & functional foods*
 - *Peptides, amino acids and protein derivatives*
 - *Human oligo saccharides from carbohydrates*

➤ Beacon

- *Bio based chemicals and materials*

➤ Dairy Processing Technology Centre

- *Process enhancements such as nutrient recovery, WWT processing & renewable energy*
- *Query re: RED II treatment of whey derived ethanol.... Qualification as 2nd generation fuel*



Sectoral Development Strategy – Meat Processing

Meat Processing Research Institute Established

➤ 5th Quarter Valorisation

- *Nutraceuticals & functional foods*
 - *Peptides, amino acids and protein derivatives*



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