



Our work and vision for the bioenergy sector

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Irish Bioenergy Association (IrBEA) Technical Executive

Irish Bioenergy Association (IrBEA)



- ▶ All Island organization established in 1999
- ▶ Representative body of all Bioenergy Sectors
- ▶ Biomass, Biogas, Biofuels, Energy Crops
- ▶ Board and Management Executive Committee
- ▶ Sector Committees - Wood Fuels, Transport, Biogas
- ▶ CEO and Executive Staff

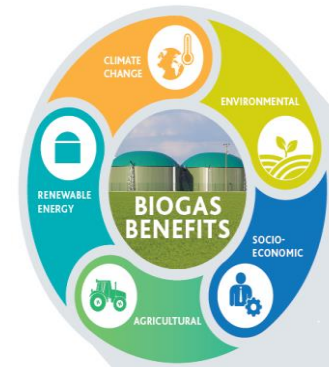
Why Bioenergy??

- ▶ Renewable
- ▶ Address Heat, Electricity and Transport
- ▶ Dispatchable
- ▶ Native source of fuel
- ▶ Agricultural and Transport emissions
- ▶ Suited to decarbonise heavy transport
- ▶ Ideal source of low carbon heat



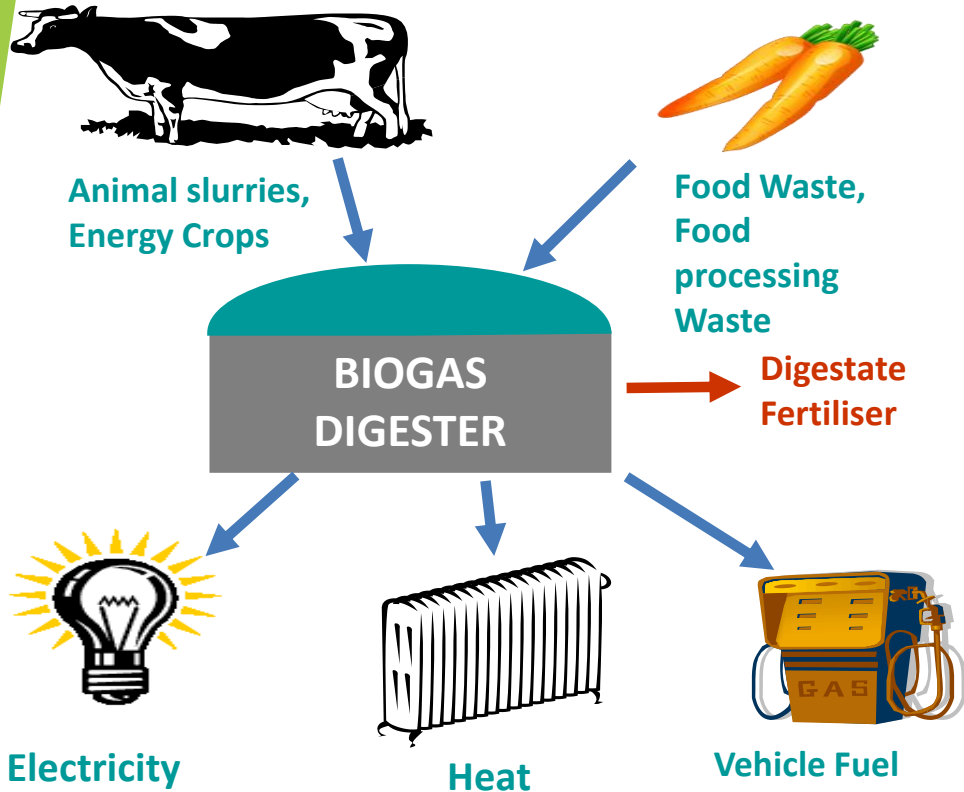
▶ IrBEA Membership

- ▶ Equipment installers, suppliers, feedstock supply chain, industrial consumers, stakeholders, finance, consultants etc....
- ▶ Training and Information workshops
- ▶ Promotion of members events
- ▶ Lobbying and advocacy
- ▶ Open to new members



- ▶ Policy
 - ▶ SSRH
 - ▶ Biogas Paper
 - ▶ Air Emissions from Wood Fuels
 - ▶ Ongoing member issues
 - ▶ Responses to Public Consultations
 - ▶ EU Clean Energy Package
 - ▶ Biofuel Obligation Scheme
 - ▶ GHG Reduction Strategy
 - ▶ Ag Climatise
 - ▶ Renewable Electricity Support Scheme
 - ▶ CRU Enduring Connection Policy 2
 - ▶ District Heating

Government Policy and Targets -



- ▶ Many reports but little policy action on bioenergy
- ▶ National Energy and Climate Plan (NECP)
 - ▶ End of 2019 to EU Commission
- ▶ Report of the Joint Committee on Climate Action Report
 - ▶ Climate Change: A Cross-Party Consensus for Action - AD Strategy
- ▶ Climate Action Plan
 - ▶ Biomethane injection of 1.6 TWh by 2030 achieved by incentive and/or Obligation
- ▶ RED 11
 - ▶ 32% renewable energy 2030

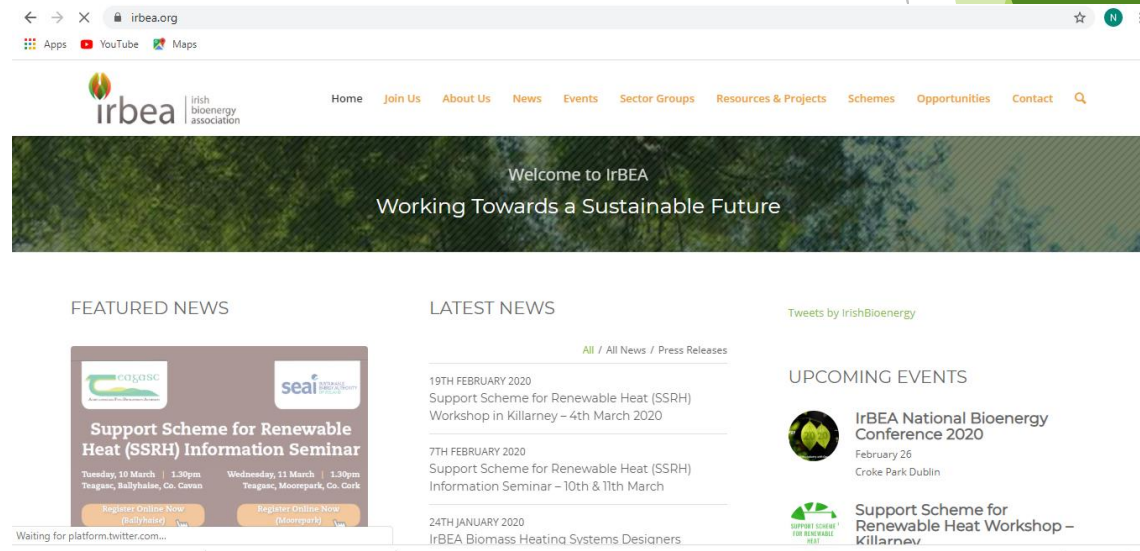
Support Scheme for Renewable Heat (SSRH)

- ▶ Opened in June 2019 following extensive lobbying by IrBEA
- ▶ Increase in the annual budget required for full potential of the scheme to be realised
- ▶ Operational Aid based on eligible heat use from biomass and AD Heating systems: a tariff which is tiered (reduces as heat output increases)
- ▶ Ongoing quarterly payments for 15 years
- ▶ Fossil based Oil/Gas to Biomass fuels
- ▶ Non ETS, Non-Single Domestic, Commercial, Industrial, Agricultural, Public Sector, District Heating
- ▶ Eligible Heat: Space Heating, Water Heating, Process heating
- ▶ Exclusions - Open spaces, wood fuel drying, electricity generation



► Communications

- Website
- Newsletter
- Social Media
- Traditional Publications - National and Regional Newspapers



- ▶ EU Stakeholder engagement and Collaborations

- ▶ Renewable Energy Ireland
- ▶ Bioenergy Europe
- ▶ European Biogas Association

Industry vision for development of an Irish Biogas Industry



- ▶ Partnership with Cré in our policy and lobbying on AD / Biogas
- ▶ Broad consultation completed with stakeholders to develop our policy document.
- ▶ Phased approach - 25 Biogas plants in Phase 1
- ▶ Medium to Large scale plants centrally located close to the natural gas grid
- ▶ Mobilising feedstock from the surrounding area
- ▶ €40 million support required for first 65MW in Phase 1
- ▶ 500,000 Tonnes of CO₂ potential savings in Phase 1
- ▶ 400 Jobs created in Phase 1
- ▶ Continue to lobby in advance of the next Budget in October 2019 for a support.



► Projects

- WFQA
 - Biomass Practitioners Register
 - EIP Small Scale Farm Biogas
 - Three C
-
- Redirect, Biogas3, Biomass Trade Centres, H2AD etc..etc....

Biomass Practitioners Register Background & Objectives

- New project for the Irish Bioenergy Association - Dec 2018
- SEAI Funded project with co-funding from IrBEA.
- Project - 12 - 15 months duration
- Registration and training of biomass boiler designers and installers
- Ensure standardisation of installation practice
- SSRH launch and new biomass boiler installations



Biomass Practitioners Register Background & Objectives cont..d

- Non Domestic up to 1MW
- Domestic boilers - SEAI Renewable Installers Register
- Over 1MW - Industrial scale
- 2 Different Registers
- Designers and Installers
- Companies will be registered rather than individuals



RE-DIRECT

REgional Development and Integration of unused biomass wastes
as REsources for Circular products and economic Transformation

- ❖ Interreg NWE project
- ❖ 11 project partners from 5 countries (IRE, BEL, GER, UK, FR)
- ❖ €5.3 m Total Budget
- ❖ Timeline 2016-2019
- ❖ Priority Axis 3: Resource and materials efficiency
- ❖ SO5: To optimise(re)use of material and natural resources in NWE



Project overview

- ▶ Investigate potential for thermal conversion of low value biomass into value added carbon products.
- ▶ ~20 feedstocks trialled.
- ▶ 2 infrastructure investments:
 - ▶ 1 large scale site in Baden Baden
 - ▶ 1 farm scale site in Welsh uplands
- ▶ Long term aim: Replicate across Europe.
- ▶ Develop regional IBCs- Integrated Biomass Concepts



What is Biochar?

- ▶ Biochar is a solid material obtained from the carbonization thermochemical conversion of biomass in an oxygen-limited environments.
- ▶ Biochar is produced by thermal decomposition of organic material (biomass such as wood, manure or leaves) under limited supply of oxygen (O_2), and at relatively low temperatures ($<700^\circ C$). This process mirrors the production of charcoal, which is perhaps the most ancient industrial technology developed by humankind.
- ▶ Biochar can be distinguished from charcoal—used mainly as a fuel—in that a primary application is use as a soil amendment with the intention to improve soil functions and to reduce emissions from biomass that would otherwise naturally degrade to greenhouse gases and as a filter medium.



Waste or Resource?

- ▶ Japanese Knotweed
- ▶ Roadside grass/hedge cuttings & Leaf Sweepings
- ▶ Horticultural & Agricultural residues
- ▶ Food production waste
- ▶ Gorse
- ▶ Bracken
- ▶ Soft Rush
- ▶ Rhododendron
- ▶ Conservation grassland cuttings





- Started 2009
- Certifies suppliers of all biomass fuels
- ISO 17225 Quality Requirements
- RED II Sustainability Requirements
- Labels, weights and measures
- Firewood, Woodchip, Wood Pellet, Wood briquettes
- Enquiries on straw, miscanthus, olive stone etc....



Why WFQA / Quality Assured Fuel is Important?

- ▶ Build Consumer confidence
- ▶ Set the standard for the wood fuel industry
- ▶ Efficiency & Boiler Reliability
- ▶ Air Emission Control





On Farm Biogas Demonstration Programme

- ▶ Demonstrate On Farm Biogas
- ▶ EIP Funding through Department of Agriculture Forestry and Marine
 - ▶ €990,000
 - ▶ 4 year duration (2019 - 2022)
- ▶ Lead Partner Irish BioEnergy Association
- ▶ Other Partners Teagasc, Laois Partnership, Tipperary Cheese



Small Biogas Demonstration Project - Objectives

- ▶ Replace fossil fuel with biogas on farm
 - ▶ On Farm Production Facility
 - ▶ Near site energy demands
 - ▶ Machinery - Biomethane tractor
- ▶ Feedstock available from waste materials - slurry, FYM, processing waste.
- ▶ Reduce the carbon footprint and artificial fertilizer usage on each farm
- ▶ Improve soil fertility with digestate usage



Aims

- ▶ Use slurry
- ▶ Possibly use surplus grass
- ▶ meet onsite energy demand(heat and Electricity)
- ▶ Recycle nutrients

Tipperary Cheese

- 100,000 litres heating oil
- €42,000 on Electric
- Meet heating demand with slurry digestion
- Add grass to meet electricity needs

What we are ideally looking for

- Dairy farm demo site
- Pig farm demo site
- Poultry demo site
- Horticulture
- Beef

Our Vision

- ▶ Lowest penetration of Bioenergy Europe, huge potential for biomass heating
- ▶ Huge opportunities to decarbonise agriculture through bioenergy - biomass, biogas, biofuels and energy crops
- ▶ Industry standardization, certification of fuel suppliers, certification of designers & installers
- ▶ Biogas can address agriculture, heat, transport and electricity sector emissions
- ▶ Small scale farm biogas opportunity when feedstock and energy demand exists



Thanks for your attention

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