

# Mobilising Bioenergy with Policy & Action

## “Bioenergy - The role of Co-ops”



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# Irish Bioenergy Association - Who We Are

- Representative Organisation for the Irish Bioenergy sector
- Policy, Advocacy, Lobbying, Research and Development.
- Raise Awareness & Provide Information about Bioenergy
  - Resource for Members
- Membership from and work on behalf of the Biomass, Biogas, Biofuels, Energy Crops & Wood Fuel Sectors
  - [www.irbea.org](http://www.irbea.org)



# Different Scales of Biogas industry?

- Medium to Large Scale Biogas Plants
  - Biogas Support scheme required
  - Centralised plants – Co-operative model
  - Focus on Biomethane and Gas to Grid
  - Feedstock from many sources
  - Farmers role to supply feedstock
- Small Scale Biogas Plants.
  - On farm – complement existing working farm
  - Feedstock and energy demand available on farm or in the vicinity of the farm
  - Capital support required rather than biogas support
  - Developed on farm by farmers

# Current Biogas Supports

- SSRH Scheme for Renewable Heat from Biogas

Tier	Lower Limit (MWh/yr)	Upper Limit (MWh/yr)	Biomass Heating Systems Tariff (c/kWh)	Anaerobic Digestion Heating Systems (c/kWh)
1	0	300	5.66	2.95
2	300	1,000	3.02	2.95
3	1,000	2,400	0.50	0.50
4	2,400	10,000	0.50	0.00
5	10,000	50,000	0.37	0.00
6	50,000	N/A	0.00	0.00

# Small Biogas Demo EIP Project

- ▶ Demonstrate On Farm Small Scale Biogas
- ▶ EIP Funding through Department of Agriculture Forestry and Marine
  - ▶ Aim to provide capital support to build 3 on farm Biogas plants
  - ▶ 4 year duration (2019 - 2022)
- ▶ Lead Partner            Irish Bioenergy Association
- ▶ Project Partners        Teagasc  
                                 Laois Partnership

[www.irbea.org/farmbiogas](http://www.irbea.org/farmbiogas)



**On Farm Biogas Demonstration Programme**

European Innovation Partnership (EIP) project funded by the Department of Agriculture, Food, and the Marine under the Rural Development Programme 2014-2020.

# EIP Project Aims



## Aims

- Use slurry
- Possibly use surplus grass or other residues
- Meet onsite energy demand(heat and Electricity)
- Recycle nutrients

## Example: Tipperary Cheese

- Offset heating oil
- Offset 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
- Beef demo site

# EIP Project Steps



- **[www.irbea.org/farmbiogas](http://www.irbea.org/farmbiogas)**
- Farmers Expression of Interest - Closed
- Initial farm evaluations will now be completed
- Viable projects invited to technical workshops
- Detailed submission to be completed by each farm for further evaluation
- Evaluation committee ranks farms in order of suitability and deploy-ability for awarding of capital grants.
- Project operational group progress detailed plans with selected farmers
- Proceed to construction and commissioning phase
- Demonstration events

# Policy Paper – Mobilising Medium to Large Scale AD



- Member Consultation, Farm Organisations Representatives, Statutory Bodies Semi State Organisations
- Collaboration & MOU with Cré



# IrBEA's – Biogas Industry Mission & Vision

- Mission:
  - Mobilise a biogas industry in the short term on a phased basis
  - Identify the clear policy decisions and actions required
- Vision:
  - 1.6Twh of Biomethane achieved by 2030 or earlier
  - Incentivised on a phased basis over several years
  - Initial Phase – 65MW achieved by 25 plants centralised and strategically located across the country in proximity to the gas grid.
  - Medium to large scale plants above 1MW
  - Biomethane support scheme from Government - €40m for initial phase. Creating 400 jobs - Abating 500,000 tons of CO<sub>2</sub>
  - Supports for small scale farm level not part of our document – IrBEA EIP Project

# Principals for Success

- Sustainability Criteria achieved
- Fully dispatchable renewable energy
- Address climate change and agriculture sustainability
- Everyone along supply chain received fair return
- Complement rather than compete with food production
- Geographically spread plants
- Cost / Benefit - technology with many benefits
- Reliable, proven, certified and tested technology used
- Clarity around planning and planning guidance
- Improve knowledge and understanding - Training and upskilling required
- Appropriate community engagement
- Support Non ETS Sector
- Utilise Gas Grid as a national resource

# Biogas address Agri Challenges

- Complement rather than compete with mainstream food production
- Manure / Slurry biogas plants initially focused on less intensively farmed areas
- Grass feed stock come from increased production and efficiency rather than existing production levels
- Alternative income stream for struggling farming sectors
- Biogas Industry can assist farmers in times of fodder shortage
- Digestate promotes the agriculture circular economy

# Supports Required & Funding Options

65MW biomethane (Equivalent to 25MW electrical AD- 50% of budget for REFIT 3)

Type of Plant	Size of Plant (MW)	Number of Plants Over Next 5 years	Rate (x cents) Support Required
Manure/Grass Silage	1.25	17	9
Agri Food Industrial	4	5	7
Food Waste	8	3	6

- PSO Levy on Fossil Gas to create a fund
- Whole of Government fund created – 7 Departments benefit
- Ring fencing Carbon Tax for support budget
- Other: Tax Breaks, Biofuels obligation Scheme, Support Scheme For Renewable Heat, Low Interest Loan, Renewable Electricity Support Scheme

# Role of Co-Ops in an Irish Biogas Industry

- IrBEA / Cre Medium to Large Scale Biogas Model based on a Co – Operative Model approach
- Existing Co-ops or new Co-ops structure to mobilise feedstock & possibly develop plants
- Co-ops contract with biogas plants
- Farmers understand & trust the Co-operative Model
- Dairy Co-ops – high energy demand – satisfy with biogas
- Co-Op Marts and Processors spread across the country
- Some mart sites offer potential for biogas plant construction
- Consideration - proximity to gas grid or electricity grid
- Complement existing mart enterprise

# Role of Co-op's in development of bioenergy

- Existing Marts – Operate in a trading environment
- New Support Scheme for Renewable Heat (SSRH)
- SSRH need to utilise locally grown and locally used biomass
- 750,000 ha of Forestry, 50 / 50 - Private / Public
- Avg size (8.8 ha) fragmented and mobilisation challenges
- Approx 22,000 private forest owners – 83% are farmers
- Marts set up as trading centres for biomass.
- Many types of Biomass – forestry residues, energy crops, straw, waste biomass, biogas feedstock
- Purchase, dry and prepare for market, store and sell biomass
- Capital investment required - support



# Typical Biomass Trade Centre



# Conclusion

- Biogas & Bioenergy – Huge Opportunity – Support needed
- Needs political vision to support a coherent approach
- AD Mainstream technology across Europe
- Significant benefits for biogas
- Whole of Government approach required
- Role for cooperative model in medium to large scale AD
- Co-Ops potential - Bioenergy & Biomass mobilisation
- Marts could act as biomass trade centres



# Thank you – Questions?

