

# Diversification opportunities at Energy Now Expo 2018

Prospects for on-farm renewable energy projects will be boosted by two new initiatives: the Support Scheme for Renewable Heat and the Renewable Electricity Support Scheme

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Globally, there is a clear commitment to decarbonise economies and energy systems, and those countries that don't make the transition risk being left behind. There are a lot of complex issues, such as how we actually balance increasing renewable energy generation and changing demand, so the electricity grid maintains a constant supply.

However, there is a lot of innovation going on which will generate great opportunities. We need to fully exploit the opportunities which on-farm energy generation and battery charging could do to provide transport, heat and electricity options for rural people so we are no longer tied to the costs of fossil fuels.

## Greater scope for anaerobic digestion

The removal of carbon dioxide from energy streams is commonly referred to as decarbonisation. There have been dramatic falls globally in the cost of technologies such as photo voltaic (PV) solar, onshore and offshore wind. New battery storage technology will help decarbonise Ireland's electricity supply and will generate interest in renewable energy production on-farm.

Ireland has a major challenge in decarbonising our heat supply. Large amounts of low carbon gas will be required to displace fossil fuel natural gas. This will offer opportunities for farmers to produce biomethane through anaerobic digestion (biogas) from slurry and grass together with other carbon sources such as food wastes.

Farmers have an obvious interest here in the supply of agricultural



At the Energy in Agriculture 2018 event in Gurteen College, were Minister of Communications, Climate Action and Environment Denis Naughten TD with Sean Ganley, sales and marketing director of C & F Green Energy Athenry, Co Galway – standing in front of the nacelle of a 25kW wind turbine.

## Key messages

- SSRH will be available for all commercial applications – with no lower limit.
- The budget for the scheme is €18m per year for 15 years. The €18m budget is for biomass alone.
- It is planned that the online portal for applications will be open in September. This will allow people to become familiar with the requirements.

## Future of renewables

A lot of supermarkets and buyers are looking to supply-chain efficiencies and certainly some milk buyers are expecting farmers to install renewables. Milk producers and niche vegetable growers in particular are being told they need to have good green energy credentials. Poultry farmers who wish to heat their sheds for young broilers face an array of choice in terms of the technology available.

New opportunities will emerge in the renewables sector for farmers and landowners because they have the very thing that most renewable energy projects require – land. They may develop a project themselves or rent out the land and receive rental income. Renewable technologies are becoming more established so investors are increasingly confident to invest.

## Energy Now Expo 2018

Teagasc and IFA are pleased to support the Energy Now Expo 2018. The conference and major exhibition of renewable technology providers takes place at The Hub, Cillin Hill, Co. Kilkenny on 24 and 25 October. The event brings together farmers, landowners and other rural business owners to engage with industry experts on the latest renewable energy opportunities available, together with the best practices in energy generation and efficiency.

Farmers will be able to engage with industry experts on the latest renewable energy opportunities, as well as the best practices in energy generation and efficiency.

For further information see [www.energynowexpo-ireland.com](http://www.energynowexpo-ireland.com)

feedstock's for the growing bio-based economy. Biomethane will require SSRH support in order for it to become viable as there is a high capital outlay.

## Support Scheme for Renewable Heat

The Minister for Communications Climate Action and Environment Denis Naughten has committed to the introduction of a scheme to reduce Ireland's reliance on imported fossil fuels and cut greenhouse gas emissions. The minister will introduce a scheme called the Support Scheme for Renewable Heat (SSRH), which will encourage the installation of equipment such as biomass boilers and ground source heat pumps in commercial properties. This could have a real benefit for rural businesses.

The tariff will be paid for 15 years from joining the scheme, providing that claimants demonstrate a use for the heat produced.

Many farms have a ready supply of

wood coppice, chip or straw that can be used in biomass boilers, and others may be able to use ground-source heat, although this tends to require larger areas of land. There could also be scope for individuals or groups to supply heat to local communities through district heating networks.

## Renewable Electricity Support Scheme

Minister Naughten has secured cabinet approval for a new Renewable Electricity Support Scheme (RESS). The new scheme will incentivise the introduction of sufficient renewable electricity generation to meet national and EU-wide renewable energy and decarbonisation targets to 2030.

RESS will consist of a number of key elements under headings including: community participation; increasing technology diversity; delivering on renewable targets for 2020 and 2030; and renewable electricity auctions. On Tuesday 31 July, a

pilot scheme was launched aimed at domestic rooftop solar PV and battery storage.

The pilot provides grant support to encourage homes to generate some of their own renewable electricity. DCCAE say that a typical three-bed, semi-detached house would need to spend about €1,800 on a solar PV panel system and would save approximately €220 per year on their electricity bills.

## Battery storage

Historically, one of the major drawbacks of renewable energy such as solar PV and wind has been variability. The wind does not always blow and the sun does not always shine when you need the electricity. Battery technology could help overcome these peaks and troughs.

It also opens up a range of future diversification opportunities, such as the prospect of hosting charging stations for electric vehicles (EVs) on farm. Developments in lithium

ion batteries have reduced the size and cost of the technology leading to more feasible "behind the meter" domestic storage and commercial scale systems, which support existing grid infrastructure for wind and solar farms. Farmers will be at the forefront of these developments.

## Low-emission vehicles

Ireland will ban the sale of new petrol and diesel cars by 2040. The future will therefore see an explosion of interest in battery-powered cars. The interest will follow for electric trucks and tractors.

The first electric tractors may be on sale as early as 2019, competing with biomethane-powered machinery for farm self-sufficiency although challenging for the rural energy infrastructure in terms of charging needs. Large vehicles may function like mobile storage batteries, earning income through so-called "vehicle-to-grid" services potentially allowing access to ultra-low cost charging.