

**Christopher Osborne**

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**From:** O'Sullivan, Garrett <Garrett.O'Sullivan@dardni.gov.uk>  
**Sent:** 02 December 2014 14:49  
**To:** Christopher Osborne  
**Subject:** Re Storage using Wrightbus batteries

Chris

Just wondering if you had any updates on the potential for use of Wrightbus waste batteries for on farm storage projects?. Any likelihood of farmers installing these in the near future? If I can help let me know.

Regards

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News, views and analysis from the Ulster Farmers' Union

News

# On-Farm Renewable Energy Storage – the future?

**CHRIS OSBORNE**  
SENIOR POLICY OFFICER

By its very nature, small-scale renewable generation (in this case wind and solar PV) produces energy intermittently, often at night when it cannot be used by the farm business.

Should a storage solution be available, the electricity could be stored when generated off-peak and used on-farm during the day thereby displacing peak demand and smoothing out any intermittency. Yet, the UFU believes that there has not been enough policy consideration or support has been given to the concept of storage of small scale renewable energy/heat in Northern Ireland.

The most pertinent complication associated with small scale renewables is "embedded generation" and

the load management complications this creates, demand has to meet supply and should this not happen, potentially the power will go out. On-farm energy storage would address this. The storage policy debate needs to be progressed if small scale renewables are to be a sustainable part of our industry in the future.

With ROCs due to be replaced by a small scale FIT in 2017, the time is ripe to be having this debate and there is an ideal opportunity for storage support to be integrated with future support and the UFU will be lobbying for this to happen.

Readers will be aware of the Lecale Micro-grid/Storage project in SE Down. To re-cap, Down Farmers for Renewable Energy are looking at a micro-grid incorporating IAES (Isothermal Compressed Air Energy Storage). IAES is a large scale, however, the UFU

are considering small on-farm single application solutions. Sited on-farm, the idea is that the energy/heat could be stored via second life traction batteries (used in electric cars etc) and used later.

With possible curtailment of small scale energy generation coming from future NIE grid connections, on-farm storage will allow power delivery at specified peak times, maximizing the potential revenue and managed profitability despite anticipated curtailment.

With Managed Connections coming closer through Project 40 and subsequent curtailment for small scale renewable generation soon to be a part of the renewables landscape, an on-farm storage solution would allow many reduced capacity generation units (with reduced connection costs) to be economically viable.

### WHAT ARE THE CHALLENGES TO ON-FARM ENERGY STORAGE?

Can switch gear be developed to allow storage to integrate with the single farm system?

Single applications often not cost effective (economies of scale only apply for network solutions)

Possible regulatory obstacles

Mind set of "biggest is best" need to be overcome

### ADVANTAGES OF STORAGE

Alternative to traditional grid reinforcement

Reduces peak demand (reducing losses and reducing asset allocation)

Carbon savings from displaced peak generation

Will ensure that despite curtailment, projects will remain viable



Trailer Marking Event, Tuesday 23rd September at Ballymena Livestock Market, contact the UFU Ballymena group office to book a time. 02825652773

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