Repowering

100%

Increases in production by over 100% possible

Repowering is the process of replacing an existing wind turbine, with a newer more efficient wind turbine on the same site. This will involve the dismantling of the existing wind turbine and the excavation and replacement or re-engineering of the existing turbine sub structure, in preparation for the replacement turbine.

The Why?

Many businesses and farmers in Northern Ireland, under the Northern Ireland Renewables Obligation scheme, took the decision to install second hand refurbished wind turbines. Now that some projects are several years into the scheme, and due to the age of some refurbished wind turbines in these projects, project owners are now starting to see the great benefits of repowering to a newer more efficient wind turbine.

The Benefits

- Quite simply, repowering is an opportunity to make your wind turbine site more efficient
- It reduces the risk of O&M issues with ageing turbines and offers better access to spare parts
- It results in improved performance. In some cases production can increase by over 100%
- Potential to improve the quality and reliability of exported power
- Give your insurers more peace of mind and thus reduce insurance costs

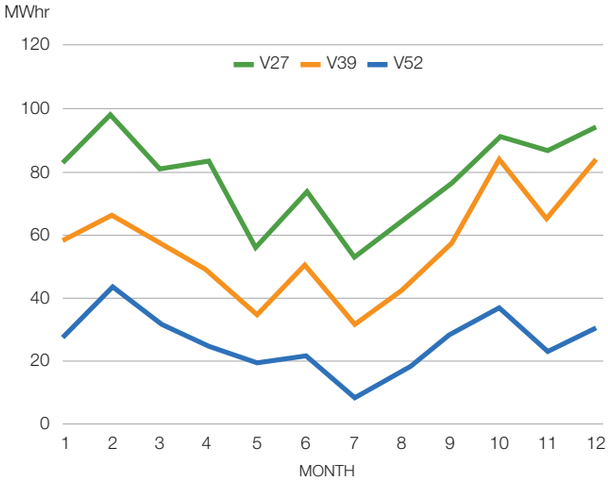
> “We recently installed a 75m EWT 250kW wind turbine. FENI were the lead consultants on this project from the initiation phase. FENI have met all our expectations by providing a reliable, service, best returns for our ROCs and the expertise to back all this up.”

Trevor Smyth,
Tobermore Concrete Products

The Regulations

- Planning permission must be sought for the replacement turbine. This needs to be progressed in a manner suitable to Ofgem
- If a land lease exists, does it allow repowering or does the lease have to be re-negotiated
- Ofgem have to be notified of any change to the generation site and all required processes adhered to
- Any turbine owner thinking about repowering should also seek legal advice early on in the repowering process
- The replacement turbine needs to meet certain technical and Ofgem requirements to remain eligible for ROCS

Annual Production Comparison of Vestas V27 vs V39 vs V52



The above graph shows the increase in production that can be made by replacing an existing turbine e.g., Vesta V27 with newer more efficient model e.g., Vestas V52 de-rated to 225kW.

Vestas V27 225kW has an average production of 480,000 kWh while the Vestas V52 could increase production to 1,150,000 kWh, nearly 2.5 times more.

The Next Step

Farm Energy NI can provide a full repowering project feasibility study, including Ofgem guidance and support, planning support and economic appraisal. To find out more contact us on 028 79 30060 or info@farmenergyni.co.uk

Interested? Contact us on 028 7930 0606 or info@farmenergyni.co.uk to find out more about Repowering

In some cases production can increase by over 100%

FarmEnergy NI
Achieving More Together

Farm Energy NI Ltd., Unit C2, 80-82 Rainey Street, Magherafelt BT45 5AJ, Telephone 028 7930 0606. www.farmenergyni.co.uk