



A Community Fund, administered by carbon reduction charity Nottingham Energy Partnership, supporting Nottinghamshire communities and voluntary groups to take initiatives in the reduction of carbon emissions, promotion of sustainable lifestyles and the adoption of renewable technologies.



Improvement required:
A renewable solution to operate on non-windy days



Grant awarded:
£2,500

Green's Windmill - Background

Green's Windmill Trust are a charity based in Sneinton, Nottingham, who operate Green's Windmill, a fully working 19th Century tower mill, restored in 1985 by Nottingham City Council.

In the early 1800s it was owned and operated by mathematical physicist George Green (1793-1841). His legacy very much lives on in all aspects of the centre.

The Trust furthers the educational and public activities of the Science Centre, promotes George Green's scientific reputation and helps to preserve the UK's milling heritage.

They have a beautiful community garden where they welcome volunteers to help out, featuring a Victorian style greenhouse, fruit trees and a wildlife pond. They hold regular pizza making workshops and always put on a full schedule of events during school holidays. You can also buy their award winning organic flour, ground by the windmill itself.

Its popularity seems to grow year on year as word gets out about this hidden gem, they even hosted a wedding party recently.

Approximately 24,000 people visited in 2017 - including 32 school groups. Entry is free.



Community garden



Flour workshop



Ruston Hornsby Engine



Donated vegetable oil

The Project

For a long time, the windmill has wanted a way to power a set of millstones and it's flour dresser on non-windy days, without drawing on mains electric. They established that recycled vegetable oil and a modified 1950s Ruston Hornsby engine with a filtering system could do the job - and it did - their millstones have been operating off grid using this method for the best part of a year. However, they wanted to go one step further, and power their flour dresser (extracts white flour from wholemeal) in the same way. To do this, funding was needed to pay for the permanent hook up between the dresser and the engine, amongst other costs. This is when they applied for an NCE grant.

What benefits does the new technology bring?

By using recycled vegetable oil as a power source the Windmill has lowered it's carbon footprint and reliance on mains electricity. As a result their yearly electricity use will decrease by 1125 kwh and their carbon footprint by 13.8kg. In money terms, their electricity bill will reduce from £2200 to £1100 - a 50% saving!

“ Let's hear from the Windmill

Being a green windmill and relying on mains electric when the sales aren't turning did not make sense - we want to operate as sustainably as possible. We've been looking to fill this gap for a long time so were delighted to hear that our grant application had been successful. We have received a brilliant response from local schools, especially Nottingham Academy, who maintain our stocks of vegetable oil, and of course it's good for them as it's a more environmentally way to dispose of their used oil.

At the moment, the engine runs off 50% vegetable oil, and 50% diesel, but we hope to increase this to 70% oil and 30% diesel as we fine tune our processes. We really enjoy telling visitors about this new initiative and raising awareness of renewable energy, and of course receiving our electricity bill, which is now half the price! ”



Flour Dresser



Flour Dresser connected to renewable supply



Millstone powered by renewable supply



Organic flour

Could your organisation be eligible for a Nottinghamshire Community Energy (NCE) grant?

What's the aim of NCE?

To encourage and support local communities and voluntary groups within Nottingham and Nottinghamshire to take initiatives and to establish projects in the reduction of carbon emissions, promotion of sustainable lifestyles and responsible use of finite resources.

Who is eligible?

Applications are invited from registered charities, schools, not for profit organisations and community benefit societies. Individuals, companies and councils are not eligible.

What projects are NCE looking to fund?

Initiatives and projects that mitigate climate change through:

- **the direct application of**
 - a) renewable technology
 - b) energy efficiency technologies
- **a reduction in the use of fossil fuels through actions around transport and waste products**
- **reducing Fuel Poverty or encouraging wildlife conservation and sustainable living**

What grant amounts are available?

NCE issue grants of a minimum of £2,000 and a maximum of 5,000.

They have a pot of £20,000 per year, and look fondly on projects that are also willing to secure match funding.

Request an application form

To request an application form please email philip.angus@nottenergy.com.

Find out more or connect with Nottinghamshire Community Energy

Visit our website or follow us on Twitter.

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