

A Cleaner, Greener Bradgate Park

RCEF Stage: 1



The Story

The Bradgate Park Trust (The Trust) is a registered charity caring for the wildlife and heritage rich landscapes of Bradgate Park, a destination visited and thought of fondly throughout communities across Leicestershire. A Cleaner, Greener Bradgate Park has provided invaluable, expert knowledge and advice to guide the Trust in understanding the practicalities and financial implications of introducing green technologies across six energy-using facilities around the park. Working with Pro Enviro, a specialist energy and carbon emissions reduction consultancy, a comprehensive report was produced, detailing the feasibility of a range of technologies including solar PV, rain water harvesting, and replacement heating systems. The completed report provides a fantastic starting point to advise on technology and engineering solutions, the financial implications, practicalities, and community benefits. We are currently absorbing the information with the hope of progressing a detailed feasibility study and designs for solar panels and grey water re-use at one of the site's biggest energy-using facilities.

Challenges & Risks

We are really pleased that delivering our stage one grant ran smoothly. Working with Pro Enviro, a thorough site visit took place to inform the report. This highlighted the practical challenges in more remote areas of the park where technologies such as solar PV would be extremely difficult due to factors such as tree coverage. A large number of the buildings have relatively low levels of consumption and expenditure on energy therefore the potential for financial and environmental benefit is small. The largest potential for savings can be made at the central Deer Barn building.

Lessons Learned

As the Deer Barn complex is the largest building with the highest energy usage, larger scale initiatives such as solar PV are most feasible at this location.

A discrepancy was found between water consumption levels and levels of sewage being collected. As a result of this finding the Trust are making further investigations.

Key Facts

Solar PV	Solar PV is also considered to be a good option. The anticipated savings from the generation of energy used on site in the first year of installation is £11,445 and 75,348 kWh with a payback of 14.7 years and a total positive cash flow of £49,964 by year 20.
Replacement Heating Systems	Air to Air heat pumps connected to combined heating and cooling systems were deemed the most viable replacement heating system.
Rain water harvesting	There is potential to capture approximately 462 m3 of rainwater per year at an average rate of 9 m3 per week.

Key Figures

Project size:	n/a
Tech type	n/a
Energy Generation	n/a
Private finance leveraged	n/a
CO2 savings	n/a
RCEF grant	Stage 1: £6,000

Further Notes

LEP area: Leicestershire

Link for further info:

The Trust plan to share their journey through their media channels including the website and social media platforms.