

## Nadder Community Energy - Renewable Heat in Schools

### RCEF Stage: 1



### Key Facts

Ground source heat pump	75 kW Clausius Strong Heat Pump System
Bore hole technology	12 x 120 meter boreholes drilled in 1300m <sup>2</sup> play area.
School benefits	Reduction in heating costs and carbon emissions.
Community benefits	Ensures the sustainability of the local school in the community and is a model project to be replicated.

### The Story

Nadder Community Energy (NCE) is a community benefit society whose aims are to establish locally owned green energy assets, cut carbon emissions and use profits for community projects. NCE has installed solar pv on 6 local schools; the RCEF grant enabled the investigation of further decarbonisation by transitioning these schools from fossil fuel to renewable heating. Heat pumps were found to be technically feasible in all schools. Access to Salix funding through collaboration with Salisbury Diocese and Dorset County Council allowed the build-out of a 75kW ground source heat pump at St Gregory's Primary School. The 12 x 120-metre-borehole heat pump is commissioned and performing above forecast. The RCEF grant meant that NCE had a shovel-ready (a term often misused) project which was a critical factor in meeting the Salix funding criteria.

### Challenges & Risks

Covid-19 caused delays to the feasibility study schedule, so NCE were unable to conduct a share offer within the RHI time-frame. Therefore the NCE ownership model was ruled out. A hire purchase model was also investigated; this model has worked at a boarding school, but the lesser heat usage at a day school made this unviable.

### Lessons Learned

The most important lesson learned from this project is the criticality of stakeholder engagement and communication as key success factors. All parties were aligned in the belief that this was a flagship project: RCEF, Nadder Community Energy Board, Salisbury Diocese, Dorset Council, St Gregory's Board of Governors, senior leadership team, staff and pupils, principal contractor South West Heat Pumps, residents in Marnhull all worked to achieve a common goal.

### Key Figures

Project size: GSHP	75 kW
Renewable Heat Generation	60,000 kWh per annum
Salix finance leveraged	£210,500
CO2 savings	15,153 kgCO <sub>2</sub> e/y
RCEF grant	£16,973

### Further notes

LEP area: Dorset

Link for further info: The project has been documented on film. The bishop will be officiating at the launch for stakeholders in June at which time the completed project film will be uploaded.