

## Antonine Sports Centre Air Source Heat Pumps

### Introduction

Antonine Community Sports Centre, in Duntocher on the outskirts of Clydebank, was awarded CARES funding towards the installation of Air Source Heat Pumps.

The centre had previously been heated by gas fired warm air heaters that had reached the end of their useful life. The sports centre manager was keen to install a more sustainable heating system to reduce their very high heating costs and began looking into alternative options.



A similar-sized sports hall in Twechar, approximately 10 miles away, had been awarded a CARES grant to install two air-to-air source heat pumps (ASHPs) and a visit was arranged for Antonine Sports Centre management to visit the Twechar hall. The combination of pumps and fans at Twechar seemed like an ideal solution for the Antonine Sport Centre and so the manager applied to CARES for a grant towards a similar project for their facility

### Equipment: Air Source Heat Pumps

2x Nordic Invest 8.2kW MSC-24/DD FP Air Source Heat Pump with 4 ceiling mounted fans for the 3 court sports hall and also 2 x 8.2kW Nordic Invest MSC-24/DD FP, with 4 ceiling mounted fans for the fitness suite. The fans are manually controlled and used to "push" the warm air collected in the high ceiling areas back down to floor level to keep occupants at a comfortable temperature.

Antonine Sports Centre is located on the edge of the Duntocher, an area of Glasgow which is regarded as being very close to areas within the lowest 0-10% of areas as regarded under the Scottish Index of Multiple Deprivation (SIMD), so it qualified for CARES funding under the Urban Development Programme. It provides a valuable local community facility to all age groups and many different clubs and organisations as well as individuals.

### Cost and Grant Funding

Total Project cost	£ 19,854.00	The remaining funding was obtained through Antonine Sports Centre capital funds from income obtained through charges and from cafe and sales through vending machines.
CARES grant	£ 17,868.60	
CARES grant Percentage	90%	

### Fuel Bill Savings

The manager Kevin Carlin provided details of the typical gas and electricity usage figures for the last 4 years and comparing the month of December alone there is around a 30% decrease in gas bills accompanied by only around 10% increase in electricity bill demonstrating the large decrease in monthly costs from around £2000 per month for the month of January to around £500.

## Emission Savings

Estimated kWh savings p.a.	7,788
Annual CO <sub>2</sub> savings (kg)	10.3
Lifetime CO <sub>2</sub> savings (kg)	257.5

## Project Monitoring

The centre will be providing electric and gas energy use data for up to a year post installation of the air source heat pumps to provide comparison data with their previous fuel bills to demonstrate the cost and CO<sub>2</sub> savings over the gas fired warm air heating system.

## Local Impact

As previously it was too expensive to heat the hall with gas fired warm air heaters the Antonine Sports Centre could not afford to heat the hall so it was impossible to hire out the facility during the winter months. With the ability to bring the temperature up to required levels at a cost that the sports centre can afford the hall has once again been able to be opened up to the many groups in the community seeking to use the hall.



## Lessons Learned

Antonine Sports Centre benefited from being introduced and going to visit another sports centre supported by CES through the CARES funding programme, to view an operational air source heat pump serving a similar sized hall. Kevin Carlin, centre manager was able to discuss the installation, running costs and maintenance requirements with the centre manager of Twechar Hall which gave Kevin the confidence to proceed with the ASHP installation at Antonine Sports Centre.

**Kevin Carlin, centre manager of Antonine Sports Centre said, "We are very grateful for all the support and guidance from Community Energy Scotland Urban Development Programme that has made this project possible."**

For further information:

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