

## Fun Factory, Dundee

### Introduction

With the success of the air to air source heat pumps installed under the CARES urban programme at the Factory Skatepark in Dundee, the management decided to install the same technology in their new Fun Factory building adjacent to the existing Factory Skatepark building. They sought advice from Community Energy Scotland and after consideration of the options they applied for urban grant funding to install air source heat pumps and photovoltaic (PV) panels for the new building. The Fun Factory is a soft play area with specialist play rooms and café facilities. The facilities complement the range of sport and community facilities available in the adjacent Factory Skatepark Building. It is located on the edge of Whitfield which is the largest area of Dundee in the 0-5% category of the Scottish Index of Multiple Deprivation (SIMD). It is also on the boundary of two other areas within the 5-10% category of the SIMD. The new Fun Factory building enables preschool children in the community to engage with play activities and with each other in a safe environment at an affordable cost.



**Equipment:** 3 x Air to Air source heat pumps 10kW ceiling mounted with 30kWhp Suntech 250kWh PV panel installation.

### Cost and Grant Funding

Total Project cost	£ 46,113.00	The remaining funding was contributed by Fun Factory capital funds through admission charges and from café and sales through vending machines.
CARES grant	£ 41,502.00	
CARES grant Percentage	90%	

### Fuel Bill Savings

The project was completed in March 2013 so the full extent of the fuel bill savings have still to be properly quantified as the bills are received and assessed.

### Emission Savings

Estimated kWh savings p.a.	27,330kWh(AASHP) 20,400(PV)
Annual CO <sub>2</sub> savings	24,000/yr (AASHP) 10,630kg/yr (PV)
Lifetime CO <sub>2</sub> savings (kg)	600,000(AASHPs) 22,7240(PV)

This project has been funded by the Scottish Government's Community and Renewable Energy Scheme (CARES).



## Local Impact

The Fun Factory was able to install renewable technology rather than the conventional non renewable technology such as gas boilers. The management team's experience of air source heat pumps in the adjacent Factory Skatepark building was a determining factor in considering air source heat pumps for this building. However due to the new building being insulated to a higher level than that required by current planning regulations the amount of heat required within the building itself was reduced.

## Lessons Learned

The Factory Skatepark benefited from utilising air to air source heat pumps in the Factory Skatepark and had seen the considerable energy and fuel bill savings made in this space which influenced the management to consider air to air source heat pumps and investigate further renewable energy options resulting in the installation of the PV panels.

Derek Marshall Chief Executive of Factory Skatepark said, "The Fun Factory has greatly benefited from the advice and expertise of Community Energy Scotland. The grant from the CARES scheme has meant that we can do our part in making

our new buildings as green and energy efficient as possible whilst at the same time making substantial savings on our running costs for electricity for many years to come."

For further information:

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