

Solar Photovoltaic ISOS Housing - North East



SOL₂O
GREEN BUILDING SOLUTIONS

Client ISOS Housing

Contract Value £7,000

The Brief

Sol2o were contracted to introduce energy saving measures to a terraced property in the North East. This was for the £16 million, UK wide, 'Retrofit for the Future' scheme and one of 4 similar schemes in the North East. The aim is to significantly reduce the buildings carbon footprint as well as reducing the tenant's energy bills.

The Solution

Before work began surveys were carried out by The Energy Savings Trust to survey the current energy efficiency and overall performance of the building with a view to test again after the renewable energy systems had been implemented and gauge how effective the installation has been.

Sol2o completed the design and installation of the properties 1kWp, 5 panel solar photovoltaic system. The PV panels will generate on average 750 kW Hours of electricity per year using energy provided by the sun. This installation also qualifies for the feed in tariff (FiT), which is projected to cover the original cost of the photovoltaic installation within 10 years, payable to ISOS.

Alongside this, a 3 panel evacuated tube solar thermal array was installed to supplement the property's central heating system and provide domestic hot water using solar energy.

Alongside Sol2o's work installing photovoltaic and solar thermal arrays onto the roof of the property, work was also carried out by other contractors to further decrease the carbon footprint of the building including the installation of energy saving electrical goods, air source heat pumps and specialised reflector window blinds.

The Result

Previous to the installation of energy saving measures the terraced early 1900's home had a SAP rating of 32 out of a possible 100, which equates to a poor final grade of 'F'.

After the property was retrofitted with the energy saving systems it has been forecast to vastly improve over the original energy efficiency ratings and aims to be awarded a final energy efficiency grade of 'A'.

To ensure that this is the case a state-of-the-art 'EnviroLogic' system has been installed to monitor the performance of the building and feed back results to both the tenants of the property so they are aware of how actions such as an open window can affect energy efficiency and partner organisations such as The Energy Savings Trust so that they can analyse the installation and use the information gathered to advise future retrofitting projects.

Upon completion of the installation David Bilclough, Chairman of John N Dunn Group, Sol2o's parent company said;

"With energy bills and carbon reduction at the forefront of everyone's mind, it is important to show how energy bills and carbon emissions can be reduced and this property can be used as an example as to how future homes should be constructed. We can learn a lot from projects like this and we are hopeful that it will prove a success and encourage others to take a lead when it comes to renewable energy."