

Central Government Energy Efficiency Grant Fund: 2022 Q1 Projects

December 2022

Introduction

This document produced by the Energy and Climate Change Directorate in the Scottish Government summarises the projects supported by the Central Government Energy Efficiency Grant Fund as part of the wider Green Public Sector Estates Decarbonisation Scheme (GPSEDS).

The Scottish Central Government Energy Efficiency Grant Scheme offers capital grant funding support to enable the delivery of decarbonisation projects across the public sector, specifically supporting retrofit of existing buildings to those organisations that have previously had limited access to borrowing funds for this type of work.

The document includes a series of one-page summaries for each of the projects supported by the Scottish Government through the Central Government Energy Efficiency Grant Fund launched in June 2021. In future this scheme will be managed by Heat and Energy Efficiency Scotland, which launched in October 2022.

The projects mostly concluded in March 2022. Details of energy and cost savings will be included in future versions of this report once organisations have had time to assess the outputs of these projects.

Capital funding applications from checkpoint 1 are currently being assessed. Successful projects will be included in the next version of this report.

For questions relating to the projects summarised in this document or fund enquiries, please direct these to GPSEDS@gov.scot

Central Government Energy Efficiency Grant
Fund: Capital Projects

NHS Greater Glasgow and Clyde - Westward House

Project organisation:

NHS Greater Glasgow and Clyde

Technology type(s):

LED lighting, Solar PV, Chiller plant

Location:

Westward House, Paisley

Grant value:

£309,746.50

Completion date:

March 2022

Project description:

NHS Greater Glasgow and Clyde commissioned a feasibility study and energy audit of Westward House in Paisley which identified several opportunities to improve energy efficiency of the site. The Scottish Government provided capital grant funding to upgrade existing lighting to new LEDs and incorporating controls where applicable, the installation of solar PV on the roof and the replacement of existing chillers with new high efficiency units which incorporate free cooling.

NHS Greater Glasgow and Clyde - Variable Speed Drives

Project organisation:

NHS Greater Glasgow and Clyde

Technology type(s):

Variable speed drives

Location(s):

Royal Alexandra Hospital, Paisley
WestMARC, Glasgow

Grant value:

£121,423.92

Completion date:

March 2022

Project description:

NHS Greater Glasgow and Clyde instructed their incumbent Building Energy Management System (BEMS) specialist to complete surveys to assess the feasibility of installing variable speed drives on three existing systems in their estate: the Royal Alexandra Hospital kitchen/dining room ventilation system and main heating pumps, and the WestMARC ventilation system. These systems previously had no speed control on the motors controlling the respective pumps/fans, although each system either had a varying demand or a demand which has changed since initial design.

The BEMS specialist provided reports on the potential savings which could be achieved by controlling the variable speed drives with CO2 sensors, temperature sensors and pressure sensors. The Scottish Government are providing capital grant funding to the health board to install variable speed drives on each of the systems mentioned above.

NHS Greater Glasgow and Clyde - Royal Alexandra Hospital LEDs

Project organisation:

NHS Greater Glasgow and Clyde

Technology type(s):

LED lighting

Location(s):

Royal Alexandra Hospital, Paisley

Grant value:

£425,832.52

Completion date:

March 2022

Project description:

NHS Greater Glasgow and Clyde worked with an electrical contractor who specialises in lighting upgrades to complete initial survey works at the Royal Alexandra Hospital in Paisley. This involved the contractor carrying out a survey of the existing lighting and then completing a separate site survey to allow a new LED lighting design to be produced. This allowed NHS Greater Glasgow and Clyde to calculate the potential energy and carbon savings based on estimated operating hours. Through this fund, the Scottish Government provided capital support to the health board to install LED lighting in two areas of the hospital: in the wards in block one, and in the medical records department to improve energy efficiency at the site.

NHS Greater Glasgow and Clyde - Building Energy Management System Upgrades

Project organisation:

NHS Greater Glasgow and Clyde

Technology type(s):

Building Energy Management System Upgrades

Location(s):

Various sites, Greater Glasgow

Grant value:

£641,693.02

Completion date:

March 2022

Project description:

NHS Greater Glasgow and Clyde instructed their incumbent Building Energy Management System (BEMs) specialist to complete a survey of various sites across their estate to identify areas which would benefit from an upgrade. The survey included high level costs to upgrade each site to an open protocol, remotely accessible system which meets the criteria of "Class A". Class A BEMs are programmable and have greatest functionality of all BEMs. They can perform a wide range of control strategies in addition to demand control ventilation and consider the whole building energy picture. The Scottish Government provided capital grant funding to the health board to upgrade 15 BEMs across their estate to Class A rating to increase energy efficiency at a number of sites.

NHS Greater Glasgow and Clyde - Glasgow Royal Infirmary LEDs

Project organisation:

NHS Greater Glasgow and Clyde

Technology type(s):

LED lighting

Location(s):

Glasgow Royal Infirmary, Glasgow

Grant value:

£289,673.44

Completion date:

March 2022

Project description:

NHS Greater Glasgow and Clyde worked with an electrical contractor who specialises in lighting upgrades to complete initial survey works at the Glasgow Royal Infirmary in Glasgow. This involved the contractor carrying out a survey of the existing lighting and then completing a separate site survey to allow a new LED lighting design to be produced. This allowed NHS Greater Glasgow and Clyde to calculate the potential energy and carbon savings based on estimated operating hours. Through this fund, the Scottish Government provided capital grant funding to the health board to install LED lighting in five areas across the hospital: Level two wards, level three wards, level four wards, hospital stairwells and hospital lift lobbies. This project has helped to improve energy efficiency at the site.

Scottish Courts – Solar PVs

Project organisation:

Scottish Courts and Tribunals Service

Technology type(s):

Solar PV

Location(s):

Paisley Procurator Fiscal's Office, Paisley
Airdrie Sheriff Court, Airdrie

Grant value:

£185,629.92

Completion date:

March 2022

Project description:

Scottish Courts and Tribunals Service (SCTS) commissioned a desktop feasibility study in 2020 to identify buildings across their estate that may be suitable for the installation of solar PV systems. The Scottish Government provided capital grant funding to SCTS to install solar PV at Paisley Procurator Fiscal's Office and Airdrie Sheriff Court. It is expected that this project will see annual energy consumption savings of 80,937kWh.

Crown Office - Solar PV (Falkirk)

Project organisation:

Crown Office and Procurator Fiscal Service

Technology type(s):

Solar PV

Location(s):

Falkirk Procurator Fiscal's Office, Falkirk

Grant value:

£15,291.24

Completion date:

March 2022

Project description:

Crown Office and Procurator Fiscal Service (COPFS) commissioned a desktop feasibility study in 2020 to identify buildings across their estate that may be suitable for the installation of solar PV systems. Falkirk COPFS was identified as a suitable building to extend the current for solar PV system of 3.75 kWp with an additional 13 kWp system. The Scottish Government provided capital grant funding to COPFS to extend the existing solar PV system at the Falkirk site. This funding covered installation costs at the site. Installation of Solar PV at COPFS Falkirk has potential for annual energy consumption savings of 10,452 kWh.

NHS Grampian - Foresterhill LEDs

Project organisation:

NHS Grampian

Technology type(s):

LED lighting

Location(s):

Aberdeen Royal Infirmary,
Foresterhill Campus, Aberdeen

Grant value:

£66,815.04

Completion date:

March 2022

Project description:

The main corridor and stairwells of Aberdeen Royal Infirmary were previously illuminated with traditional fluorescent lighting. The Scottish Government provided capital grant funding to install approximately 200 LED light fittings within the main hospital corridor and four stairwells of Aberdeen Royal Infirmary. Installation of LED lighting at Aberdeen Royal Infirmary has potential for energy consumption savings of 60,707 kWh within a year at the site.

NHS Grampian - Ashgrove House Window Replacements

Project organisation:

NHS Grampian

Technology type(s):

Window replacements

Location(s):

Ashgrove House, Foresterhill Campus, Aberdeen

Grant value:

£345,999.60

Completion date:

March 2022

Project description:

Ashgrove House is a five storied block which was formally a Nurses Home. It is now used mainly for offices and clinic facilities. The building was constructed in the 1930s and approximately half of the windows were in original wooden framed single glazed units. These are in poor condition and provide inadequate insulation to the building. The Scottish Government provided capital grant funding to the health board to replace the existing wooden frames single glazing at Ashgrove House with UPVC double glazed units.

NHS Grampian - Peterhead Window Replacements

Project organisation:

NHS Grampian

Technology type(s):

Window replacements

Location(s):

Peterhead Community Hospital, Peterhead

Grant value:

£73,698.53

Completion date:

March 2022

Project description:

The windows in Peterhead Community Hospital dated back to 1992 and have been problematic since installation. The North East facing façade is subjected to the full force of wind and rain from the north sea which is adjacent to the building. The seals were ineffective and the resulting draught required the heating to be increased to compensate. The Scottish Government provided capital grant funding to the health board to replace the existing windows at in the Summers Ward of Peterhead Community Hospital with new units to increase energy efficiency at the site. Replacing the windows at Peterhead Community Hospital has potential for annual energy consumption savings of **202,032.00 kWh**.

NHS Grampian - Royal Aberdeen Children's Hospital

Project organisation:

NHS Grampian

Technology type(s):

Building Management System

Location(s):

Royal Aberdeen Children's Hospital, Aberdeen

Grant value:

£162,000.00

Completion date:

March 2022

Project description:

The Building Management System (BMS) within the Royal Aberdeen Children's Hospital was approximately 20 years old. The Honeywell system installed was obsolete and becoming difficult to support. It was a stand-alone system and cannot be linked or accessed via the system installed across the rest of Foresterhill Campus. The Scottish Government provided capital grant funding to the health board to replace the existing but obsolete Honeywell BMS with a Schneider System compatible with other parts of campus. Replacing the BMS at Royal Aberdeen Children's Hospital has potential for annual energy consumption savings of 204,417 kWh.

North East Scotland College – Solar

Project organisation:

North East Scotland College

Technology type(s):

Solar PV

Location(s):

Aberdeen City Campus, Aberdeen

Altens Campus, Aberdeen

Clinterty Campus, Aberdeen

Fraserburgh Campus, Fraserburgh

Grant value:

£2,028,324.00

Predicted completion date:

Autumn 2022

Project description:

North East Scotland College commissioned feasibility studies and energy audits of four campuses across their estate which identified several opportunities to improve energy efficiency of the sites. The first proposed stage of improving energy efficiency was the installation of solar PV to the campus buildings. The Scottish Government are providing capital grant funding to the college to install solar PV to four campuses across North East Scotland College's estate: Aberdeen City Campus, Altens Campus, Clinterty Campus and Fraserburgh Campus.

This project is due to complete in Autumn 2022. The installation of solar PV across the four campuses North East Scotland College's estate has potential for annual energy consumption savings of 860,991 kWh.

North East Scotland College – LEDs

Project organisation:

North East Scotland College

Technology type(s):

LED lighting

Location(s):

Clinterty Campus, Aberdeen

Grant value:

£125,091.63

Completion date:

March 2022

Project description:

North East Scotland College worked with an electrical contractor to complete initial survey works and proposal for the installation of LED lighting at Clinterty Campus in Aberdeen. Through this fund, the Scottish Government provided capital grant funding to the college to install LED lighting across Clinterty Campus. The installation of LED lighting in North East Scotland College's Clinterty Campus has potential for annual energy consumption savings of 72,278 kWh.

Scottish Government Facilities and Estates Services - Victoria Quay LEDs

Project organisation:

Scottish Government Facilities and Estates Services

Technology type(s):

LED lighting

Location(s):

Victoria Quay, Edinburgh

Grant value:

£1,500,000.00

Completion date:

March 2022

Project description:

Victoria Quay is the Scottish Government's headquarters, and is the largest building in the estate. The offices were previously lit with high output T5 fluorescent tubes. Scottish Government's Facilities and Estates Services team identified the need to replace the lighting through maintenance schedules, site investigations, and the design life of the existing lighting equipment. Through this fund, we provided capital grant funding to Scottish Government Facilities and Estates Services to install LED lighting and lighting controls in Victoria Quay. Due to the scale and capital cost of the project, it will be completed in stages. Funding was allocated to complete stage one of the project.

Scottish Government Facilities and Estates Services - SASA LEDs

Project organisation:

Scottish Government Facilities and Estates Services

Technology type(s):

LED lighting

Location(s):

Science and Advice for Scottish Agriculture (SASA), Edinburgh

Grant value:

£1,446,942.16

Completion date:

March 2022

Project description:

The SASA HQ building is the centre of operations for SASA and includes office space, laboratories and a library. The offices were previously lit with high output T5 fluorescent tubes. Scottish Government's Facilities and Estates Services team identified the need to replace the lighting through maintenance schedules, site investigations, and the design life of the existing lighting equipment. Through this fund, we provided capital grant funding to Scottish Government Facilities and Estates Services to install LED lighting and lighting controls at SASA hq.

Scottish Government Facilities and Estates Services - Tweedbank Window Replacements

Project organisation:

Scottish Government Facilities and Estates Services

Technology type(s):

Window replacements

Location(s):

7 Tweedside Park, Galashiels

Grant value:

£166,666.00

Completion date:

March 2022

Project description:

The Central Government Energy Efficiency Grant Fund is provided capital funding support to Scottish Government Facilities and Estates Services to replace existing windows at 7 Tweedside Park, Galashiels with triple glazed windows to improve energy efficiency at the site.

Scottish Government Facilities and Estates Services - Thainstone Court Window Replacements

Project organisation:

Scottish Government Facilities and Estates Services

Technology type(s):

Window replacements

Location(s):

Thainstone Court, Inverurie

Grant value:

£140,000.00

Completion date:

March 2022

Project description:

The Central Government Energy Efficiency Grant Fund provided capital support to Scottish Government Facilities and Estates Services to replace existing windows at Thainstone Court with triple glazed windows to improve energy efficiency at the site.

Scottish Government Facilities and Estates Services - Faskally Window Replacements

Project organisation:

Scottish Government Facilities and Estates Services

Technology type(s):

Window replacements

Location(s):

Freshwater Fish Laboratory Faskally, Pitlochry

Grant value:

£130,603.00

Completion date:

March 2022

Project description:

The Central Government Energy Efficiency Grant Fund provided capital support to Scottish Government Facilities and Estates Services to replace existing windows at the Freshwater Fish Laboratory Faskally, Pitlochry with triple glazed windows to improve energy efficiency at the site.

SFRS - Fort William Biomass Boiler

Project organisation:

Scottish Fire and Rescue Service

Technology type(s):

Biomass boiler

Location(s):

Fort William Fire Station, Fort William

Grant value:

£243,600.00

Predicted completion date:

March 2022

Project description:

The Scottish Fire and Rescue Service (SFRS) commissioned a feasibility and design study to explore the option the installation of a biomass boiler to replace the existing oil fired system at Fort William Fire Station. The site has been found to be well suited to biomass as it has a large off grid oil boiler. Biomass fuel is readily available within the local area and a number of larger buildings in Fort William already running on biomass heating systems. SFRS already own and operate a large biomass boiler at their National Headquarters in Cambuslang and therefore have an existing contract in place for biomass fuel supply, maintenance and servicing. Through this fund, the Scottish Government is provided capital grant funding to SFRS to replace their existing boiler with a woodchip biomass boiler, alterations to existing BMS, underfloor heating and pipework alterations, and associated electrical works at the Fort William site.

SFRS - Building Energy Management Systems

Project organisation:

Scottish Fire and Rescue Service

Technology type(s):

Building Energy Management Systems

Location(s):

North Anderson Drive Fire Station, Aberdeen

Yorkhill Fire Station, Glasgow

Dumfries Fire Station, Dumfries

Perth Fire Station, Perth

Peterhead Fire Station, Peterhead

Fort William Fire Station, Fort William

Grant value:

£216,672.41

Completion date:

March 2022

Project description:

The Scottish Fire and Rescue Service (SFRS) installed 22 Building Energy Management Systems (BEMS) across their estate in 2020/2021. Stations that have had BEMS installed are 24 hour operations all year round and so are very energy intensive buildings. The BEMS are connected to SFRS new "IQ Vision BEMS platform" allowing for remote management of these systems to ensure optimisation. Through this fund, the Scottish Government provided capital grant funding to SFRS to expand the roll out of BEMS to six more stations across their estate. The funding will cover the installation of new trend 1Q4 BEMS, heating zone valves in key areas of the buildings, drying room dehumidifier and controls, new occupancy heating controls, heating pipework insulation and connection to SFRS IQ Vision Central BEMS platform.

SFRS - Solar PV

Project organisation:

Scottish Fire and Rescue Service

Technology type(s):

Solar PV

Location(s):

Multiple across Scotland

Grant value:

£644,954.00

Completion date:

March 2022

Project description:

In 2020 and 2021, Scottish Fire and Rescue Service (SFRS) successfully installed roof mounted solar PV arrays to 22 sites across their estate. Feasibility studies were completed for a number of other sites across the estate to assess the suitability of expanding the solar PV installation programme to more fire stations in Scotland. Through this fund, the Scottish Government provided capital grant funding to SFRS to install roof mounted solar PV arrays to a further 17 sites across their estate in Scotland.

SFRS - Retained Estate Energy Efficiency

Project organisation:

Scottish Fire and Rescue Service

Technology type(s):

Building Energy Management Systems

Boiler and heating upgrades

Mechanical and electrical upgrades

Solar PV

Insulation

Location(s):

Multiple across Scotland

Grant value:

£1,029,919.00

Predicted completion date:

March 2022

Project description:

Scottish Fire and Rescue Service (SFRS) completed a trial of installing energy efficiency packages at two sites in 2020/2021. Both trials were successful, and in one case saw over 60% reduction in total energy use at the site. Through this fund, the Scottish Government provided capital grant funding to SFRS to install a suite of energy efficiency measures across ten stations in their estate. All sites had roof mounted solar PV installed, gas boiler switched to direct electric boiler, new smart heating controls that can be remotely managed, cavity and loft insulation, and pipework insulation throughout the site. This project was focused on installing a suite of energy efficiency measures within rural fire stations. These stations are also community hubs used by local community groups for meetings and events.

Fife College Capital LED Lighting

Project organisation:

Fife College

Technology type(s):

LED lighting

Location(s):

Levenmouth Campus, Leven

Kirkcaldy Campus, Kirkcaldy

Glenrothes Campus, Glenrothes

Grant value:

£88,500.00

Predicted completion date:

March 2022

Project description:

Fife College commissioned a site audits of Levenmouth Campus, Kirkcaldy Campus and Glenrothes Campus to assess the viability of replacing existing light fittings with LED lighting. Through this fund, the Scottish Government is provided capital grant funding to Fife College to install LED lighting across the three campuses.



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