Ref: PAC32-I-1531

Addendum to letter of 01 August 2019 and response to issues raised.

10. Note in regard to the energy rating of the building that is being fully refurbished, and the form of fuel used to heat or cool it, as the case may be.

The DEC cert (Display Energy Certificate) displayed for the Leinster House Complex is D1 (covering 103,414m^2)[1]. Display Energy Certificates use a scale from A to G with A being the most efficient and G the least efficient. This energy rating is for all Government Departments/Cultural Institutions connected to the meters in Fisheries Yard.

Energy Management OPW has confirmed that the Energy Rating certificate for Leinster House is a Display Energy Certificate (DEC), not a BER. A BER looks the same i.e. same rating scale but is derived from a computer model. It is primarily used for new buildings (a requirement of the Building Regulations). The DEC is calculated using actual energy consumption data for the property. The DEC for Leinster House covers the entire complex. The DEC is a consumption per m2 measure only.

Heating to the Leinster House Complex is provided by gas and wood pellets with air conditioning (where it exists), lighting etc provided by electricity.

Following the refurbishment of Leinster House, the following works should contribute to Energy savings but this will take some months in operation to quantify.

Building Fabric:
The fire proofing material between floors and at attic level is 80mm 'Corofil', which is a mineral wool type material with insulating properties, it is fitted between joists and will improve the insulation levels between floors.

The Windows have been draft sealed for heat retention and draft exclusion and made operational for summer cooling. Secondary glazing has been provided for sound proofing reasons in some rooms including the Seanad Chamber which also improves insulation. The improvement to the windows should reduce the requirement for occupants to use electric heaters during the winter or fans during the summer.

Heating and Ventilation:
The heating system is primarily radiators fed from high efficiency gas boiler plant and wood pellet plant. The radiators and associated pipework were replaced as part of the works which will improve their efficiency, and the radiator pipework is better insulated than before which will reduce heat loss.
The heating circulating pumps are new and are very energy efficient.

[1] The Leinster House Complex includes the following buildings Leinster House, LH2000, 1966 Block, 1932 Annex, National Museum, National Library, Agricultural House, Dept. of Finance (Sth Block only), Office of the Attorney General, Dept. of the Taoiseach, Dept. of Business, Enterprise and Innovation, and the Department of Arts, Heritage and the Gaeltacht.

The Old House is better sealed against draughts as the windows have been refurbished and the heating will not need to work as hard to maintain comfort levels due to the reduced heat loss.
A new Building Energy Management System has been installed with room temperature sensors around the house. These sensors monitor temperatures in the room space and control the heating to the radiators more efficiently than before.
The Seanad Chamber is provided with energy efficient Air conditioning units to provide comfort cooling to this space. Due to the occupancy level of the Chamber openable windows alone would not be adequate to maintain comfort levels in this space, and due to the use of the chamber, openable windows would not be appropriate as a solution anyway.

Note: Air conditioning is not installed throughout the building

Lighting:
The Old House was already fitted with high efficiency LED lighting throughout and as part of the refurbishment this was replaced with next-generation LED light sources having further energy reductions. Lighting in the attic space and on the roof (including the floodlights for the flagpole) have been changed to LED type, as have the fittings on the Second Floor (which had been unoccupied prior to the refurbishment works). In total we would estimate that there would be an energy saving of 15% to 18% on the lighting installation, however this will be mostly offset by the additional occupancy on the Second Floor.

The following are other ongoing energy efficiency projects,

Solar:
Due to the historic nature of the building it was considered inappropriate to install solar panels on the roof of HLH, however a solar installation is planned for elsewhere on the campus pending the results of a new feasibility study (awaited).

Electric Vehicle Charging:
Additional Chargers for electric vehicles are being installed on the campus as part of a separate project.

LH2000 Led Lighting
Installation of new LED lighting this year on 3rd Floor of LH2000 is complete and expected to yield significant savings. Consideration is currently underway to replacement on 4th floor LH2000 but the exact timescale for this is not confirmed but expected in 2019.