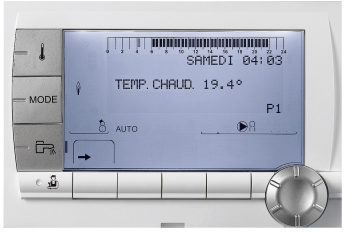
Vizes Court - Elderly Residential Complex

Located in Limerick City Centre Vizes Court is a purpose built residential complex specifically designed for elderly occupants. The completion of the project in January 2014 is a substantial move towards co-ordinated low energy low impact urban living.

The development has twenty nine individually accessed apartments and a central communal area. Each residential unit has an individually controlled under floor heating system and are connected to the central boiler house via individual heat interface units which separate the apartments from the primary system. Energy meters are provided in each unit to allow for ongoing system monitoring & billing.

The boiler house comprises 2,500 litres of hot water storage, for showers etc, heated to 60°C by the three DeDietrich PGA38H natural gas fired heat pumps. Each unit can produce up to 65°C if required invidually without assistance from any other heat source.
The natural gas heat pump provides a kilo-watt of heat at a reduced cost of over 45% versus a convential condensing gas boiler by way of the innovative "Absorption" technology used.

The system is assisted by a single 90kW DeDietrich MCA wall hung gas boiler. All elements of the system including pumps for heating, hot water cylinders, system temepratures, weather compensation, boiler and heat pumps are controlled by a single DeDietrich iSystem controller integrated into the boiler panel.
Having a single manufacturer for all heating & control equipment resulted in a seamless and uniquely simple operation.



Architect
Reddy O'Riordan Staehli Architects

Client
Limerick City Council

Heat Pump & District Heating Supplier
Origen Energy Ltd

Underfloor Heating Supplier
Polytherm Heating Ltd.

Boiler Supplier
Hevac Ltd

NATURAL GAS

BORD GÁIS NETWORKS

Natural Gas Fired Heat Pump's

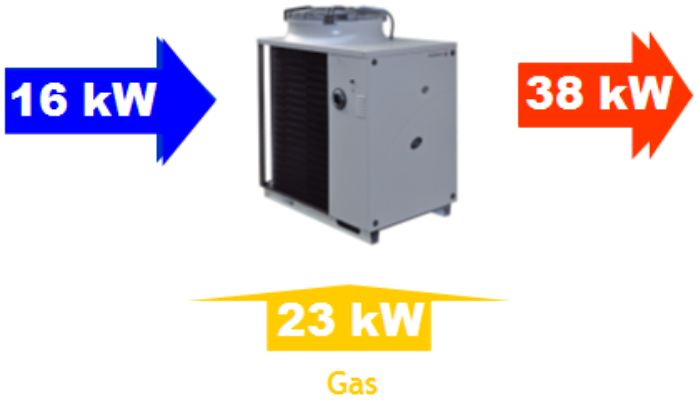
Three DeDietrich PGA38H units were installed and provideg 114kW of heat to the twenty nine residential units in Vizes Court.
The three units feed into a low loss header which distributes the heat to the radiators & underfloor heating in each dwelling. Also heating 2,500 litres of domestic hot water for showers etc.

The heating system is weather compensated for optimum efficiency and is assited as necessary by a 90kW wall hung DeDietrich MCA boiler.

DeDietrich PGA38H units use a natural refrigerant CFC & HCFC free with a GWP & ODP of zero (Global Warming Potential & Ozone Depletion Potential), meaning they have very little impact on the environment even at the end of their life when being disposed of.

PGA38H Technical Data:

Electrical input [kW]	1.1
Thermal output [kW] A7/W35	41.23
GUE Efficiency / COP	1.64
Operational Range	-20°C - +45°C
Max water flow temperature	65°C
Voltage / frequency	1~230V / 50HZ
Weight	400Kg
Noise @ 10m	45dBA
Service interval	Annual / 12,000Hrs



COMPARISON:

New SEDBUK A Rated 90% Efficient **Gas Boiler:** 40kW output requires 44kW of gas input. Therefore 40kW output produces **9.1kg's of carbon dioxide.**

New DeDietrich PGA38H **Heat Pump:** 40kW output requires only 24kW of gas input. Therefore 40kW output produces **5kg's of carbon dioxide.**

So the PGA38H natural gas heat pump **reduces natural gas usage by over 45%** and **reduces carbon dioxide emissions by 45%** also.

BORD GÁIS NETWORKS
NEW CONNECTIONS 1850 427 737
www.bordgais.ie
New development site drawings: plans@bge.ie
New Connections:
Dublin: Arena Road, Sandyford Business Park, Dublin 18
Cork: PO Box 51, Gasworks Road, Cork.

GSDC 3009g1