Our Part in a Sustainable Future

Manufacturing solutions for the electrification of heat in buildings

Glen Dimplex
HEATING & VENTILATION

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In 1973 Glen Electric was established by Martin Naughton and four colleagues in Newry, Northern Ireland. The new business commenced manufacturing electric radiators, employing seven people.

Today the Glen Dimplex Group is a world leader in intelligent electric heating and renewable energy solutions, as well as holding significant global market positions in domestic appliances, cooling and ventilation.

The world is changing, and a low carbon future that is powered by electricity places Glen Dimplex in an excellent position to support its customers in their transition to a new approach for heating buildings.

Ability BURCO Creda HEATING Dimplex®

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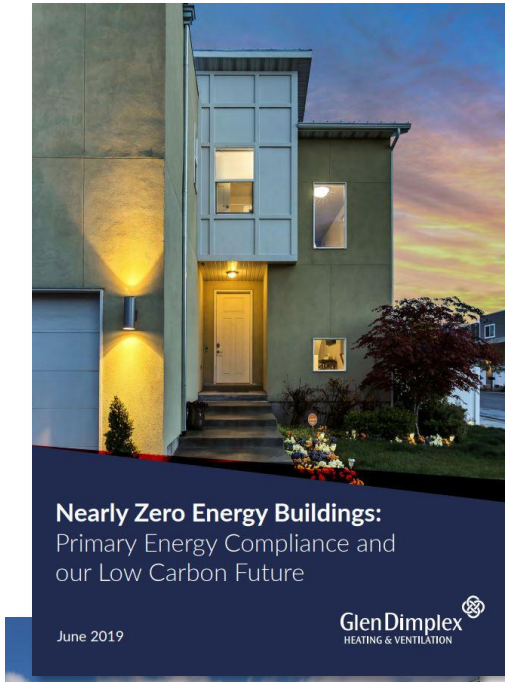
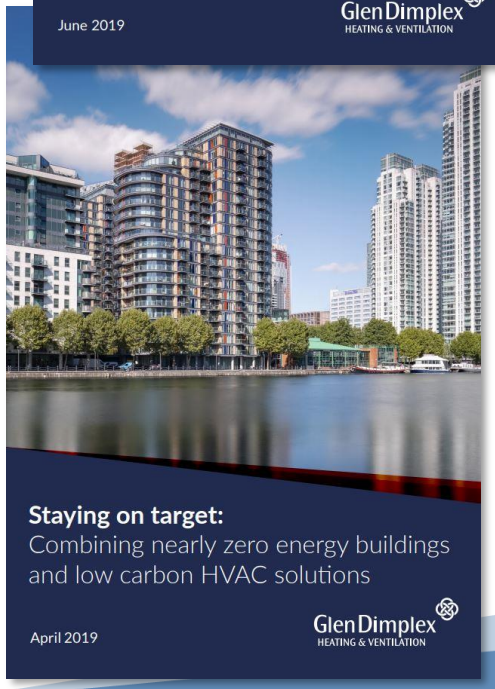
A New Era of Compliance

We have a policy and legislation team dedicated to understanding the changes ahead of our industry.

This understanding means that we can support our customers in understanding what will be required for compliance and best-practice in the future, covering topics such as:

- European Performance of Buildings Directive (EPBD), requiring that our new buildings are Nearly Zero Energy Buildings (NZEBs) from 2022.
- How NZEBs will be measured using Primary Energy.
- Changes to the Standard Assessment Procedure (SAP 10) and Section 6 of the Building Regulations to support these new targets.
- Regional and national grant funding and programmes such as Homes Upgrade Grant, Local Authority Delivery, ECO4, Energy Efficiency Programme etc.





WHAT IS PRIMARY ENERGY?

Primary energy is a reflection of how much raw fuel is used to generate a unit of final energy. This includes the power used to create, transform and transport the energy from its raw form to where it is used.

Currently, the UK primary energy factors are listed as 1.122 for gas and 1.738 for electricity. These factors are likely to be used to calculate a building's overall primary energy use, with a target which must be achieved before construction can commence.

WHAT IS THE DEFINITION OF A NZEB?

Article 2 of the EPBD defines a NZEB as 'a building that has a **very high energy performance**, where the **very low amount of energy that is required** is covered to a very significant extent **by energy from renewable sources, including energy from renewable sources produced on-site or nearby'.**

Our technologies are at the heart of this transition

To make this transition and meet these requirements; **modern, efficient technologies need to replace traditional forms of heating**.

We have been successful in introducing new systems that do just this, such as:

- Our Zeroth Low Temperature Network , which drastically reduces the amount of energy wasted in new apartment developments, and allows a wide range of renewable sources to be used as fuel for the heating, hot water and even cooling of these new homes.

- Our Edel Hot Water Heat Pump, an integrated air source heat pump and water cylinder providing domestic hot water requirements renewably, as part of a hybrid electric solution.

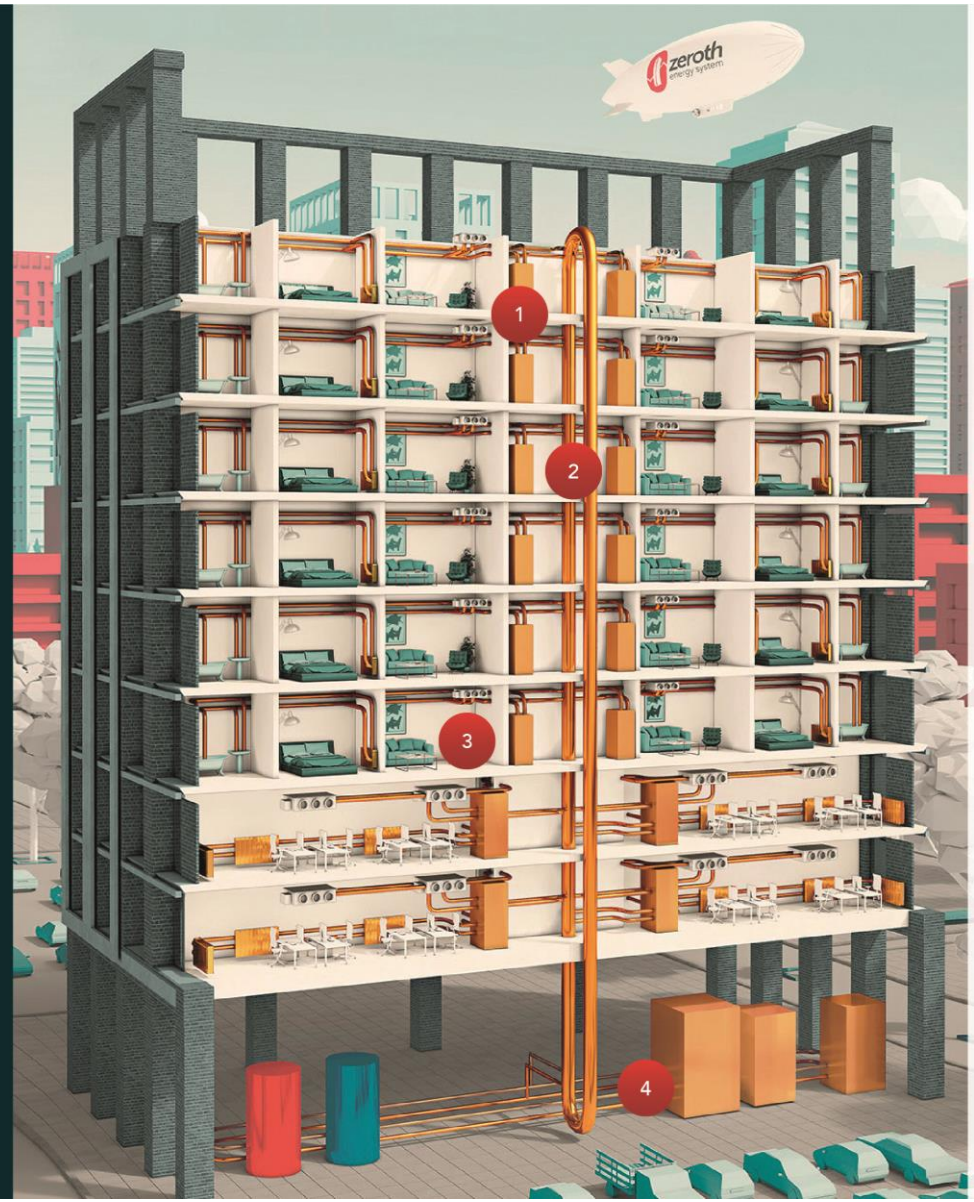
- Our Quantum Energy System, a smart energy storage platform which can be used to balance out demand on the electricity grid, maximising the use of electricity and lowering customers' bills.

Zeroth Energy System

To address compliance issues in new multi-residential apartments we have developed an ambient temperature network with heating, hot water and cooling capabilities.

This solution is revolutionary in urban developments where renewable plant and heat networks can be used to provide low-carbon energy into a central loop, before in-apartment water-to-water heat pumps then provide HVAC to the dwelling.

1. An in-dwelling heat pump provides each apartment with heating, cooling and hot water.
2. A water loop transfers energy throughout the building using fewer, smaller pipes.
3. This energy loop removes the overheating issues associated with traditional CHP systems, which can see temperatures in communal spaces rise to nearly 30°C in the summer.
4. This system provides the opportunity for a smaller plant room, with flexibility of layout and energy sources.



- Gain compliance with SAP
- Reduce heat loss from pipework
- Improve building efficiency
- Lower OPEX and bills
- Reduce insulation on pipework
- Flexible plant room layout

Edel Hot Water Heat Pumps

To address the potential difficulties of electrification where traditional heat pumps are not an option, we have developed a hybrid heat pump system where the domestic hot water is delivered renewably.

This integrated air-source heat pump and hot water cylinder can be used to gain compliance in new developments and improve the performance of a renovation project.

This solution improves EPC scores and SAP ratings when paired with off-peak or direct-acting electric space heating, aiding compliance through competitively priced systems.

Quantum Off-Peak Heater

Dimplex® QUANTUM

Ecodesign Compliant
www.lot20.co.uk

Now a long-standing solution for addressing running costs and control of electric systems in existing homes, Quantum is the leading High Heat Retention Storage Heater, offering:

- Recognised in SAP, with a responsiveness rating 0.8
- Efficient heating system with low running costs delivered by maximising the use of off-peak tariffs
- Controllable electronic heat output to match user lifestyle
- Fan assisted to quickly, quietly and more effectively distribute heat
- Slimline design that covers traditional storage heater fixing marks
- PIN-based landlord lock feature
- BEAB Approved for quality and safety assurance

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We can support your low carbon specifications…

We have decades of experience in supporting social housing providers to find the most efficient, cost effective solution for their projects.

Our Applications Design team can produce specifications for new buildings and refurbishment projects to a range of requirements, considering:

- National legislation and Building Regulations
- Local/ regional requirements
- EPC targets
- Capital cost and running cost goals
- Minimum renewable energy contributions
- Providers' sustainability strategy

Speak to our team today to find out how we can help you design heat pump, electric space and water heating, and ventilation solutions.

Thank you