

A powerful display of energy efficiency

We're guaranteeing the Museum of Liverpool annual energy savings of more than £500,000 with ENER-G Combined Heat and Power (CHP).



They were looking for a state-of-the-art solution

The new £72m Museum of Liverpool is the largest national museum to be built in the UK for more than a hundred years. The building provides 8,000 square meters of public space across three floors, there was a lot of heat generation, cool air and power to consider. Installing an ENER-G CHP system was the best solution.

We designed a system to cut costs and CO₂

To provide efficient generation to serve the museum's total energy needs, we installed:

- Two 385kWe bio-diesel ENER-G CHP units
- Two 768kWe natural gas ENER-G CHP systems
- Two 850kWe boilers
- A 1000kWe absorption chiller
- A 998kWe compression chiller

This trigeneration system allows us to create electricity and then recover the heat created to provide heat and hot water for the museum in winter, and air conditioning and chilled water in the summer.

Divide and conquer

The solution is split between a plant room in the new building and the historic Great Western Railway (GWR) Goods Shed, which we converted into a state-of-the-art energy center with sophisticated remote monitoring and diagnostic facilities.

Overcoming challenges

To succeed on this project we had to:

- Design the energy center to operate independently of the utility electrical supply
- Preserve the GWR building exterior in line with planning conditions as the site is part of a protected view



units fitted



of CO₂ cut a year



annual energy savings

The results

The four ENER-G CHP units installed guarantee annual energy savings of more than £500,000. We are reducing carbon emissions by 884 tonnes a year – the equivalent of taking 295 cars off the road.

Why choose ENER-G CHP?

- Help you achieve energy cost savings of up to 40%
- Reduces CO₂ emissions by up to 30%
- Provides greater security of supply and plentiful hot water
- Provide efficient cooling by adding chillers
- Used as a replacement for inefficient boilers or work alongside existing boilers