



# A great result for United

We're helping Newcastle United save 390 tonnes a year in CO<sub>2</sub> emissions – with no upfront costs.



## They were looking to improve results

The club were already offsetting more carbon than they emitted through boiler optimisation, burner management, lighting upgrades, smart building and energy monitoring. But to take their carbon saving to the next level, they needed a permanent, cost-effective solution onsite.

## Our solution was the perfect match

Working with their consultants Energy Impact, they decided that the ENER-G Combined Heat and Power (CHP) units were the perfect choice for Newcastle United. They don't just generate electricity, they actually recover the majority of the heat created in the process. This is then used to supply heating and hot water for the building.

## Building the solution on-site

One of the main obstacles we overcame was the actual space constraints within the stadium. To get the equipment to where it was needed meant delivering it in three sections then rebuilding onsite.

With the system safely in its new surroundings, we de-rated the 230kWh CHP engine to 185kWh capacity in order to achieve a 200kVa load threshold. This was due to the electrical grid network constraints.

## The results

The CHP unit is now helping the club reduce their CO<sub>2</sub> emissions by an additional 390 tonnes per year.

Thanks to the on-board computer, which provides a two-way communication channel between the unit and the ENER-G service centre, we can monitor the energy levels in real-time to optimise performance.

As the technology we supplied was on a pay-as-you-save basis via the Discount Energy Purchase scheme, there was no capital outlay for the equipment or installation either.



of CO<sub>2</sub> emissions  
reduced annually



equal to 130 cars  
being removed  
from the road



or 320 acres  
of forest  
being planted



Our partnership introducing a high efficiency CHP system is another major step in our mission to achieve outstanding green performance.”

**Eddie Rutherford**

Facilities Manager at Newcastle United

## Why choose ENER-G CHP?

- Can help you achieve energy cost savings of up to 40%
- Reduces CO<sub>2</sub> emissions of up to 30%
- Provides greater security of supply and plentiful hot water
- Can provide efficient cooling by adding chillers
- Can be used as a replacement for inefficient boilers or work alongside existing boilers
- Offers flexible procurement options
- Requires Zero CAPEX
- May benefit from potential Government funding for energy efficient schemes and possible grant funding