



National Grid achieves major savings through R22 replacement programme

As a driving force behind the UK's electricity and gas network, National Grid plays a vital role in connecting millions of people safely, reliably and efficiently to the energy they use.

The company is at the heart of one of the greatest challenges facing society – delivering clean energy within the UK long into the future. National Grid also works to promote the development and implementation of sustainable, innovative and affordable energy solutions.

Yet, with a wide and varied network of premises often relying on antiquated building services, National Grid also has to ensure that its own facilities are helping the company face its carbon reduction challenges and keeping operational costs to a minimum.



Air Conditioning | Heating
Ventilation | Controls

Air Conditioning

Case Study

National Grid

Making a
World of
Difference



Modern air conditioning systems can often use the same piping as R22 units saving on installation time, as well as increasing performance and efficiency.

Installation Summary

Estimated carbon reduction across all properties: 2,044,518kg

Estimated annual energy costs savings across all properties: £385,522.63

A variety of air conditioning and ventilation products have been used from the City Multi, Mr Slim and Lossnay range.

National Grid conducted site surveys of existing cooling and heating systems across their network of 145 substations and many were found to be old, inefficient and in some cases non-operational.

The company was also concerned about the existing R22 refrigerant still on site. The use of which was banned at the end of 2014.

From Jan 2015 any business still using R22 equipment will have to replace it immediately if it needs more than a minor service. National Grid assessed how many sites they had affected, and put in place a programme to swap out these systems quickly and efficiently to new, higher efficiency products.

The replacement programme meant updates and improvements were made on over 140 sites nationally, helping to save National Grid energy and operational costs.

Throughout the upgrade attention to individual set points and time cycles helped the company reduce energy use even further.

Paul Sibson, National Grid explains “We have used the latest Mitsubishi Electric technology, which means running costs savings and carbon reduction are between 30% and 50% when old R22 equipment is replaced with like for like sizes”.

“Furthermore we have teamed the upgrade of the air conditioning systems with state of the art controls to not only provide the optimum air environment but support operations to minimise running costs and to preserve energy”.

National Grid now has efficient, up to date, low running cost equipment which meets all current legislation and saves them an estimated £385,522 in annual running costs and 2,044,518kg of carbon reduction.

Another major benefit has been the ECA tax relief; in total this has benefitted National Grid over £1million.



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