LOGICOOL
Specialist Air Conditioning Distributor

Case Study

Problem

A server solutions hosting specialist were faced with the taxing problem of installing new equipment from their data centre in Nottingham.

As a host premises responsible for the servers and hosting for many local businesses this site is critical. Even considering replacing a new cooling system is a problem due to the potential downtime that this would cause.

The problem the customer faced was threefold. Firstly the existing air conditioning system was old and inefficient. The end user was in a position where a "quick fix" was easier and the cost of new plant seemed prohibitive (the system is a 25 - 28kW triple split). Therefore spares were regularly purchased to try and repair the system quickly but in the end it was clear that this was no longer possible.

Solution

The installing contractor approached Logicool with the problem. A cost analysis was prepared by looking at the existing equipment and making a running cost calculation based on the rated power input for the existing installed plant. This was found to be £11,452.80 per annum based on 24/7 operation 365 days a year. This did not take into account increased running costs from the coil degradation and related lower heat exchange efficiency the system would have suffered.

New Hitachi IVX system with ECA (Enhanced Capital Allowances) approval was proposed. The ECA tax benefits in this instance are applicable to the whole cost of the installation including labour.

The contractor proposed installing the equipment at night to ensure low ambient conditions.

End user costs/payback

The installation cost was £6,800.00

The projected energy saving costs of the new Hitachi plant based on the same conditions is £4,044.67

The ECA benefit to the end user is £2,040.00. This is based on 30% of installation cost based on expected corporation tax of a profit making business.

Based on the first year energy consumption saving and the ECA rebate the actual net installation cost is £715.33

The payback period for this installation is first year savings plus 65.7 days

(Note – all figures based on worse-case scenario with maximum power inputs and full compressor speed and does not allow for projected spares/repair costs)

Enhanced Capital Allowances

The Enhanced Capital Allowance (ECA) scheme enables businesses to claim a 100% first year capital allowance on investments in certain energy saving equipment, against the taxable profits of the period of investment.

Capital allowances enable businesses to write off the capital cost of purchasing new plant or machinery (e.g. boilers, motors, heat-pumps), against their taxable profits.

The Enhanced Capital Allowance (ECA) Scheme is a key part of the Government's programme to manage climate change. It provides businesses with enhanced tax relief for investments in equipment that meets published energy-saving criteria.

Their website (www.eca.gov.uk) provides background information about the scheme and its benefits.

For purchasers of equipment, the website provides information on which products are eligible for ECAs, and provides details on how to claim the enhanced tax relief when you have made a purchase of eligible equipment.

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