

CORPORATE MANAGEMENT COMMITTEE

Thursday 25 November 2010 at 7.30 p.m.

in the Council Chamber, Runnymede Civic Centre, Addlestone

**SECOND SUPPLEMENTARY AGENDA**

**PART I**

15. INSTALLATION OF ENERGY SAVING ELECTRICAL EQUIPMENT FOR THE COUNCIL (DTS)

1. **Purpose of Report**

- 1.1 **To recommend that the Committee invokes Standing Order C1.6 and authorises the waiver of Standing Order C2.5 so that Power Perfector Ltd will be appointed as the specialist contractor for the installation of Power Perfector and an Uninterruptible Power Supply (UPS) to the Civic Centre and Power Perfector only to Chertsey Depot, Egham Leisure Centre and Woodham and New Haw Day Centre.**

2. Background Information

- 2.1 Power surges have in the past damaged Safer Runnymede equipment with significant costs involved in the replacement of various parts. While carrying out research to identify suitable equipment that might be used to protect the Civic Centre, the Power Perfector system came to the notice of Officers, not only as a power surge protector but also as it would provide many other benefits including a reduction in energy consumption. The benefits of the Power Perfector system are set out in section 3 of this report.

3. Report

- 3.1 Voltage Power Optimisation (also known as Power Perfector) can assist in achieving energy saving and carbon reduction targets. It optimises voltage, dealing with the discrepancy between the actual supply voltage received (207V - 253V) and the optimum voltage that electrical equipment requires (220V). It would give Officers the opportunity to micro-manage and improve the power supply.
- 3.2 Voltage Power Optimisation is not the same as voltage reduction. It is a unique technology only available from Power Perfector. It is designed specifically to save energy whilst addressing the problems of over-voltage and poor power quality on today's grid. Transformers and autotransformers are an old-fashioned technology, not designed for energy saving and when used for this purpose they can only deliver one thing: voltage reduction. The reliability of Power Perfector is proven; there have never been any interruptions to power supply from a Power Perfector failure in over 185,000 units in 15 years.
- 3.3 Case studies have shown that in some instances Voltage Power Optimisation cuts energy use and carbon emissions by up to 20%, maximum demand by up to 15% and prolongs the life and reliability of all equipment that runs on electricity. It also protects the entire electrical infrastructure. An increasing number of electrical phenomena adversely affect and degrade equipment and in the case of power spikes, can cause catastrophic damage. There is evidence that such spikes are on the increase and will become more common as the UK moves to Renewable Energy sources. A Power Perfector unit will provide protection from these spikes, for up to 25,000 volts.
- 3.4 Some of the guaranteed benefits of Voltage Power Optimisation are as follows:-
- A reduction in kilowatt per hour
  - A reduction in electricity costs by up to 20%
  - A reduction in carbon emissions by up to 15%

- A reduction in reactive power by up to 45%
- A reduction in maintenance costs
- A reduction in the capital cost of replacing equipment early
- Protection of electrical equipment from power spikes
- A substantial improvement in power quality and power factor
- Damage to sensitive equipment will be suppressed
- The product has a 15 year guarantee and 30-50 year life cycle
- The product has 24/7 operation and no maintenance.

3.5 There are a number of local authorities using this equipment already, so Officers have contacted two of them to verify that the equipment delivers the savings promised. Epsom and Ewell Borough Council have stated that the installation of Voltage Power Optimisation at one of their Halls has reduced consumption of electricity by 16.1% without impacting upon the use of the venue by the local community and commercial hirers. Waverley Borough Council report average savings of 11.38% in the first 3 months of installation of the system which equate to £5,837 per annum and carbon dioxide savings of 39,594kg per annum will be achieved, with a payback for the system of 4 years.

3.6 Four Runnymede sites have been identified where Power Perfector could potentially reduce electrical consumption and carbon dioxide emissions. They are the Civic Centre, Chertsey Depot, Egham Leisure Centre and Woodham and New Haw Day Centre. The total electricity consumption of these four sites is currently £127,823 per annum. None of the sites has any power correction facilities installed to protect against power surges. Power Perfector would deal with that occurrence.

3.7 At its last meeting on 28 October 2010, this Committee approved the sum of £26,800 to provide for the replacement of the existing uninterruptible power supply (UPS) and the associated electrical alterations within the Civic Centre, to be funded from the hardware replacement provision within the capital programme. By combining the installation of the UPS with the Power Perfector, the installation costs for the Civic Centre would be significantly reduced and Officers accordingly recommend this course of action.

#### 4. Financial Implications

4.1 The cost of supply and installation for the four sites is £41,079 and the gross annual savings would be £12,781. Therefore the payback period would be 3.2 years. Carbon dioxide savings per annum would be 87,268kg. As the cost of energy increases, so will the level of savings.

4.2 Officers would be able to access the total amount of the supply and installation costs of £41,079 from the energy efficiency funding program known as Salix. This would be an interest free loan, repaid over 4 years from the ring fenced savings made from the electricity budgets from the buildings. However, to take advantage of this financing, the work must be completed by the end of February 2011.

4.3 Salix has also offered a further free loan of £24,842 for the installation of the Uninterruptible Power Supply system on the basis of the energy savings that would be made by its installation. An interest free loan repaid from ring fenced savings not using the current budget is an attractive offer for consideration.

4.4 The purchase of the Power Perfector equipment would be capital expenditure and a capital budget is therefore required. It is proposed to finance the purchase from capital receipts which will enable the full financial benefits to be enjoyed by the various revenue accounts.

4.5 The offer of an interest free loan is also beneficial as it allows the Council to preserve its cash reserves as the loan is paid off. Although interest rates are currently low, the benefit outweighs the cost of administering the loan arrangement.

#### 5. Policy Implications

5.1 In addition to providing a cost effective solution to the Council's power needs, installing Power Perfector systems would promote the sustainable use of resources, which is one of the priorities in the Council's Sustainable Community Strategy and Corporate Plan.

6. Legal Implications

- 6.1 Contract Standing Order C1.6 provides that exceptions to the requirements of Contract Standing Orders may be made only by resolution of the Committee responsible for the contract in question. The Committee making the decision must be satisfied that the exception is justified by special circumstances. In this instance the financial benefit of undertaking the work at the Civic Centre for the installation of the UPS at the same time as the installation of the Power Perfector and the fact that there is only one supplier of the Power Perfector equipment could be viewed as special circumstances which would justify invoking the provisions of Contract Standing Order C1.6.
- 6.2 Contract Standing Order C2.5 provides that where the estimated value of a contract is more than £30,000, which is the case for the work which is the subject of this report, at least four tenders must be invited.
- 6.3 The Committee is requested to agree to waive Contract Standing Order C2.5 for the reasons set out in this report, in order that Power Perfector may be installed in the locations identified.

**OFFICERS' RECOMMENDATION that –**

- i) Contract Standing Order C1.6 be invoked and Contract Standing Order C2.5 be waived, for the reasons set out in the report and Power Perfector be appointed as a specialist contractor to instal Power Perfector and an Uninterruptable Power Supply in the Civic Centre and to instal Power Perfector in the Chertsey Depot, Egham Leisure Centre and Woodham and New Haw Day Centre;**
- ii) a capital estimate in the sum of £41,100 be approved for the purchase and installation of Power Perfector equipment, to be financed from capital receipts in hand; and**
- iii) the consequent revenue savings be factored into the Financial Forecast.**

**(TO RESOLVE)**

Background Papers

None