The business plan of the eThekwini City Architects Department has a section on Sustainable Architecture as one of its focus areas, of which the key performance indicators (kpi) are: reduced energy use in the operation of Council buildings; reduced non-renewable resources in the construction of Council buildings; the use of recycled buildings for Council requirements; and the design of sustainable buildings. The Department is targeting that eThekwini Municipality be recognized as an originator and leader in Sustainable Architecture.

As part of the study into the kpi on reduced energy use in the operation of Council buildings, an energy audit and energy efficiency assessment was carried out of the City Engineer’s building at 166 Old Fort Road in August 2005 by the eThekwini Energy Team (Environment Management and Architecture Department).

The energy-saving recommendations were of low-cost, non-cost, and medium-cost options. Low-cost and non-cost options proposed a minimization in the operational hours of air-conditioning chillers by one day and five hours a week. This would annually save Council R99 500. Should that successful, the second proposal is to raise the chilled water set-point by 2-degrees C during the six winter months. Currently it is maintained at 6-degrees C throughout the year. This would save Council R8 300 annually.

Medium-cost options are to install timers to limit the operations of the air-conditioning fan-coil units during after-hour periods. Although it would cost Council R1 500 per timer to install four timers on each of the seven floors, the savings would amount to R45 000 annually.

The non-cost proposal is the initiation of an awareness-raising campaign among staff. Observations made during the survey and subsequently, suggested that there are opportunities for energy efficiency improvement via good house-keeping measures. Such measures often amount to little more than ensuring lights are switched off during lunch breaks and after-hours. The savings to Council would be R30 400 annually.

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Reference: