



KEMPSEY
Shire Council

DIRECTOR CORPORATE AND COMMUNITY SERVICES REPORT

11th December 2007

DCCS14

AIR CONDITIONERS - CIVIC CENTRE

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{Folio No. *}

SUMMARY:

Reporting on current air conditioning systems in place at Council's Civic Centre offices and their inefficiencies in relation to power consumption, meeting OH&S guidelines, cost of maintenance and green house gas emissions

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DESCRIPTION:

Kempsey Shire Council's Civic Centre has 35 individual air conditioning units ranging in age from 20 years to 12 months old.

The power consumption of the 35 units if all running at maximum capacity at the same time is estimated to cost \$550 per day. Some of the older type units are inefficient in operation and offer no more relief than a cooling fan.

The OH&S regulation 2001 Clauses 47 and 48 refer to the responsibility of employers to provide adequate ventilation and air movement in indoor environments. The following is an extract from the WorkCover Guide to Health and Safety in the Office 2004: -

"Ventilation refers to the movement of air and rate of fresh air input. Air movement of less than 0.1 meters per second can lead to stuffy rooms whereas above 0.2 meters per second draughts can be felt.

For each person a minimum rate of 5-10 litres per second per person for general office space or 10 litres per second for every 10 square meters of flooring is recommended."

No office space in the civic centre has a fresh air return system in place and the need to open windows leads to a reduction in the effectiveness of the centres security and exposes staff to unwanted interruptions from passers by.

The cost of maintaining the 35 plus units is presently \$1200.00 per four month period.

In addition old units can contribute to 'sick building syndrome', where the incidence of illness can be significantly higher in some buildings than in

others. The symptoms that characterise 'sick building syndrome' are sore eyes, running nose, headaches, mucous membrane irritation, dry skin, dizziness and nausea.

The air-conditioning and refrigeration industry is the largest user of hydrofluorocarbons (HFCs), a group of potent synthetic green house gases and is a significant user of energy. Refrigeration and air conditioning equipment that is not maintained in good order consumes more energy than necessary thus increasing the amount of CO₂, released to the atmosphere.

Council has received quotes from Trial Bay Refrigeration and Air Conditioning, its existing Civic Centre air-conditioning contractor, to upgrade the air conditioning in all main office areas of the Civic Centre to meet existing Australian Standards. This does not include the Council Chambers area in which a new air-conditioning unit was installed last year.

The cost estimate for each department area is as follows: -

Shire Services - \$26,500.00
Sustainable Services – \$26,500.00
Human Resources - \$13,250.00
Records - \$8,200.00
Mayor, General Manager and IT Section - \$15,250.00
Corporate Services - \$13,250.00

Total Cost: \$102,950

The work includes removal of old units, sealing off of pipes, install new units, new ducting, return air, new toilet exhausts, fresh air intake, to meet Australian Standard 1668.2 - 2002

It is expected that the cost of running a new ducted system would be less than our current units plus the new proposed systems are inverter type which are 30% cheaper to run than standard systems.

The install of the new systems would mean that the office areas are in accordance with OH&S regulations 2001 and WorkCover guidelines for Health & Safety in the Office.

For the purpose of this report only one quotation has been supplied to provide an indication of the costing for the upgrade for inclusion in budget considerations. Should Council consent to the work, additional quotations would be sought in accordance with the provisions of the "Purchasing Goods and Services" Policy.

REPORT IMPLICATIONS:

- ***Environmental***

The environmental implications of the report mainly relate to the reduced consumption of power and a reduction in producing green house gases.

- ***Social***

Improving the air quality of Councils office areas should help to reduce some illness born from insufficient air flow and exchange of fresh air have a flow on effect to employees lives, better working environment is beneficial to employees health.

- *Economic (Financial)*

Initial outlay of approximately \$102,950.00, using the estimate provided by Trial Bay Refrigeration and Air Conditioning will be required should all the units be upgraded in one (1) financial year. Savings will be achieved in power consumption and reduced maintenance costs. The improved working environment could also reduce the amount of time lost from illness.

Being a capital cost, this could be funded from loans. The upgrade could either be staged over several years or done in a single year.

- *Policy or Statutory*

OH&S regulations 2001 Clauses 47 & 48 covers the requirements for Council to provide for the health of its employees in the workplace in relation to ventilation and air-conditioning.

- *Director's Review*

With the exception of the Council Chambers and Customer First Centre the air conditioning systems used in the Civic Centre buildings do not comply with the Building Code of Australia and Australian Standards (15 air changes per hour).

This matter is raised as a peoples health issue and could expose Council to the risk of OH&S and workers compensation claims.

The works could be staged.

RECOMMENDATION:

That funding for the upgrade of all old air-conditioning units at the Civic Centre and replacement with ducted systems be listed for consideration in the 2008-2009 budget estimates.

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DIRECTOR CORPORATE AND COMMUNITY SERVICES