

19<sup>th</sup> March 2008

Australian Government Productivity Commission  
Canberra Office  
Level 2, 15 Moore Street  
CANBERRA CITY ACT 2600

Attention: Mike Woods  
Commissioner

Dear Sir,

**RE: BUSINESS SA DISCUSSION  
17<sup>TH</sup> March**

I thank you for allowing myself to discuss issues with yourselves and specifically related to the Australian invented Shaw Method of Air Conditioning (SMAC®).

I submit a summary of those issues together with some additional details I would like you to consider about SMAC®.

Applicability

- Commercial, Industrial and Institutional Buildings
- Universally suitable for Tropical and Temperate (Hot Dry) Climates, and all in between.
- Retrofits – relatively simple with immediate to 5 year pay back.
- New Installations – does not increase costs, consistently cheaper.

Benefits – claims (savings are annual assessments)

- Provides the highest quality of air conditioning with no sacrifice in quality to reduce energy.
- Reduces greenhouse gas emissions and energy by 30 to 60% with savings,
  - i) Estimated at 5 large (coal) stations in Australia (U of SA Researcher).
  - ii) Estimated at equal to Australia's total emissions in USA (extrapolated from ASHRAE).
  - iii) Estimated at over 1,000 million tonnes globally (extrapolated from ASHRAE).
- Reduces water consumption in buildings and water cooled power station typical Adelaide building of 15 levels by 1.5 ML.
- Reduces peak electrical load by 20 to 30%. This impacts on future power generation capacity and grid augmentation requirements and assists in a more reliable power supply. Blackouts caused by grid overloads can have serious economic consequences, and similarly cost of power rises during shortage (ie VOLL).
- Reduces water chemical usage through reduced water consumption in cooling towers.
- Simple technology hence easy to maintain thereby ensuring longevity.

- High potential for export earnings and import replacements.  
A high percentage of larger air conditioning plant is imported. Manufacturing can be considered in Australia.
- Worldwide recognition of Australia's capacity to combat global warming and provide leading technologies.
- Increases capital value of asset through receiving higher rents (as demonstrated at 19 Grenfell St – rent increase over 30%)
- Commercially available to all manufacturers, suppliers, designers, and contractors hence is not a commercial disadvantage. This access to our technology is specifically included in all our distribution agreements.
- With large scale production it may reduce the total volume of future installed refrigerative type package plant which has a high potential for refrigerant leakage. The refrigerants themselves have an excessively high global warming potential (GWP). Our technology promotes large central plant and not package plant. Denmark has banned air conditioning technologies with high potential for refrigerant leakage and with other European countries to follow.

#### Barriers

1. No support or interest from the commonwealth or state governments other than SA.
2. Limited financial and people resources to expand within Australia and overseas.
3. Reluctance by Private Sector (particularly engineers) to accept new technologies and particularly if it's Australian.

#### Solution to Barriers

1. All governments to follow SA leadership as demonstrated through inclusion of our technology in its policy document Energy Efficiency Action Plan Compliance (EEAP).
2. Signed Australian Distribution Agreement with American Company, Johnson Controls who,
  - Is one of the world's largest corporations in the aircon industry.
  - Is one of the five technology provider to the worldwide programme Clinton Climate Initiative.
  - Have offices in most countries and cities throughout the world.
  - Accepted Australia's agreement after considerable evaluation by their corporate head office. Discussions have commenced for Asian Distribution including manufacturing in China, with USA and elsewhere to follow.
3. Developing a Portfolio of successful projects external to Adelaide, Darwin and Thailand. The Government support we have sought is for Shaw to be considered in government buildings eg National Portrait Gallery (NPC) and where Shaw would have reduced that buildings Aircon energy by 50%. These projects will overcome the reluctance to design by engineers.

### Summary Conclusion

Shaw is not simply a good idea, it has proven itself by reducing air conditioning energy by 30 to 60% in Adelaide, Darwin and Thailand. Recognition in Australia includes 4 National Awards of Excellence from 3 separate peak industry associations and featuring as a case study and example by the Cooperative Research Centre for Construction Innovation.

Solving the cause of Climate Change requires leadership and we have provided that with our technology however political leadership is essential for success. Through you we seek that.

Yours faithfully,

**Wayne Ryan**  
**AIR CON SERVE PTY LTD**