

IHEA
PD Seminar No. 3 / 2009
Asset Management
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Keeping your cool with
asset management

or

“How long do you flog a
dead horse”



What is an Asset Management Plan:

Planning

Service Delivery

Cost / Benefit

Acquisition

Non Asset Alternatives

Risk Evaluation

Purchasing / Funding

Operation & Maintenance

Maintenance program

Optimise performance / availability

Environmental Management

Disposal

Replacement

Redeployment

Retirement

Renewal

Case study of Air Cooled, Multistack Chiller, installed at Wimmera Base Hospital, to service the Air-conditioning of the Main Hospital Building.

- Constructed 1995
- Single story brick veneer construction of 5,345m²
- Servicing 80 Acute beds, Emergency Department, Radiology, Operating Theatres & Day Procedure Unit, CSSD, Intensive Care, Day Oncology, Dialysis.

Selection of Chiller:

- Contract Specification
- Air cooled
- 470kW
- 6°C ΔT
- 40°C Ambient Temp
- 19L/sec

Installed Unit:

- Multistack RC 115AD
- 4 Modules (8 compressors)
- 412kW
- 5.5°C ΔT
- 35°C Ambient Temp
- 19.2 L/sec (4.8 L/sec per module)

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History

- Installed 1995 as part of major rebuilding of Acute Hospital



- Building occupied October 1995.
- 1995 – 2000 – Various faults, (records not available prior to 1998)
- Mar 2000 – Replaced Compressor # 8 \$ N/A
- Nov 2000 – Replaced Fan on Compressor # 8 \$2,577
- Jan 2004 – “Phantom Faults” started
- Apr 2004 – New controller & software fitted \$1,026
- Nov 2004 – Replaced Compressor # 6 \$8,615
- Dec 2004 – Replaced H/Ex & Compressor # 6 \$7,398
- Jan 2005 – New Tx Valve compressor #5 \$4,524

- Oct 2005 – Moved inlet louvers to provide access for maintenance
\$3,942



Nov 2005 – Overhaul Chiller: \$35,622

- Rewire 24v control circuit to cards
- Install new heat exchangers to all compressors
- Install new condenser fans to all compressors
- Install 4 new Tx Valves
- High pressure clean Headers

Jan 2006 – Replace Compressor # 6 & #5 Fan \$4,885

- Mar 2006 – Install roof on enclosure \$7,922



- Oct 2006 – Rewire Compressor # 5 control WHCG 4hrs
- Nov 2006 – Chemical clean all condenser coils WHCG 18hrs, \$400
- Jan 2007 – Replace compressor # 2 \$11,884
- Nov 2007 – Replace Compressor # 8 \$10,108

- Feb 2008 – Install Evaporative Coolers to enclosure
\$24,700



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Costs:

- Total (Recorded) \$165,710
 - Repairs and PM \$44,000
 - Compressors \$85,146
 - Upgrade Works \$36,564
 - Invoice costs only- WHCG Labour only partially recorded and not costed

Current Replacement (Value of Chiller)

- \$150,000 - \$200,000 est.

Recent Facility Valuation (By Valuer General)

Building – Depreciated Value \$M12.4

- Useful Life 37 Years (**out of 50**)

Services – Depreciated Value \$M6

- CRV \$M11.3 @\$2,500/m²

Depreciation now rated @ 2.7% per Annum

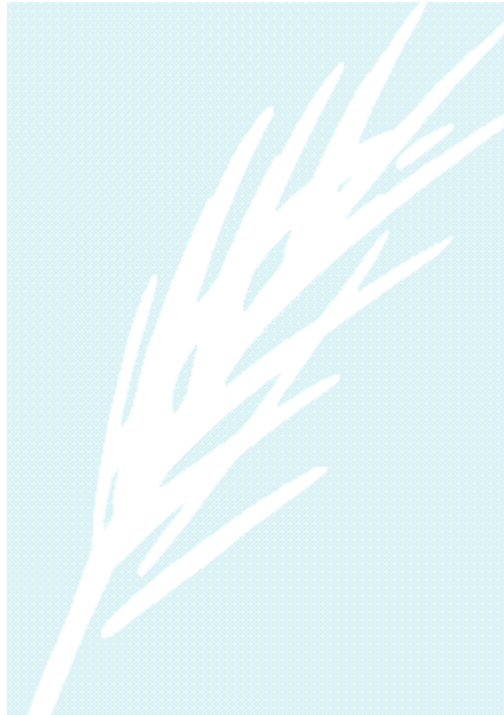
Have we flogged the horse?

- Availability of asset
 - Good since Mar 2006 (Installed roof)
 - Very good since Feb 2008 (Installed coolers)
- Cost to keep “running”
 - More than \$165,710 (Exceeds replacement value)
- Replacement
 - Depreciation not funded by DoH
 - Approval by DoH required for leasing
 - Limited grants available
 - EIP (Engineering Infrastructure Program)
 - ESAS (Environmental Sustainable Action Statement)

After all this work and cost

- Do we really have a thoroughbred asset?





Apologies to Bart