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## FOR IMMEDIATE RELEASE

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## HEATCRAFT ARE KEEPING ENERGY COSTS TOP OF MIND

Heatcraft is gaining significant energy efficiencies with the range of Kirby WRC Remote Condensers. Advancements in coil and fan technology mean that increased savings in running costs can be realised over the lifespan of the unit.

The Kirby WRC Remote Condenser has been designed with a larger coil to fan ratio than competitor products. Simply explained the Kirby WRC needs less airflow to achieve the same capacity because of the larger coil face area per fan. A 10 fan remote condenser from a competitor can be replaced by an 8 fan Kirby WRC, an 8 fan can be replaced by a 6 fan Kirby WRC and a 6 fan can be replaced by a 5 fan and so on.

Saving the energy used by 2 fans over the life of the unit (say 10 years @ \$0.15 per kW) amounts to \$52,560 saving (6 Pole) or \$27,594 (8 Pole). The same savings will be achieved when controlling fans by staging or by speed control because in each case 2 fans less are used.

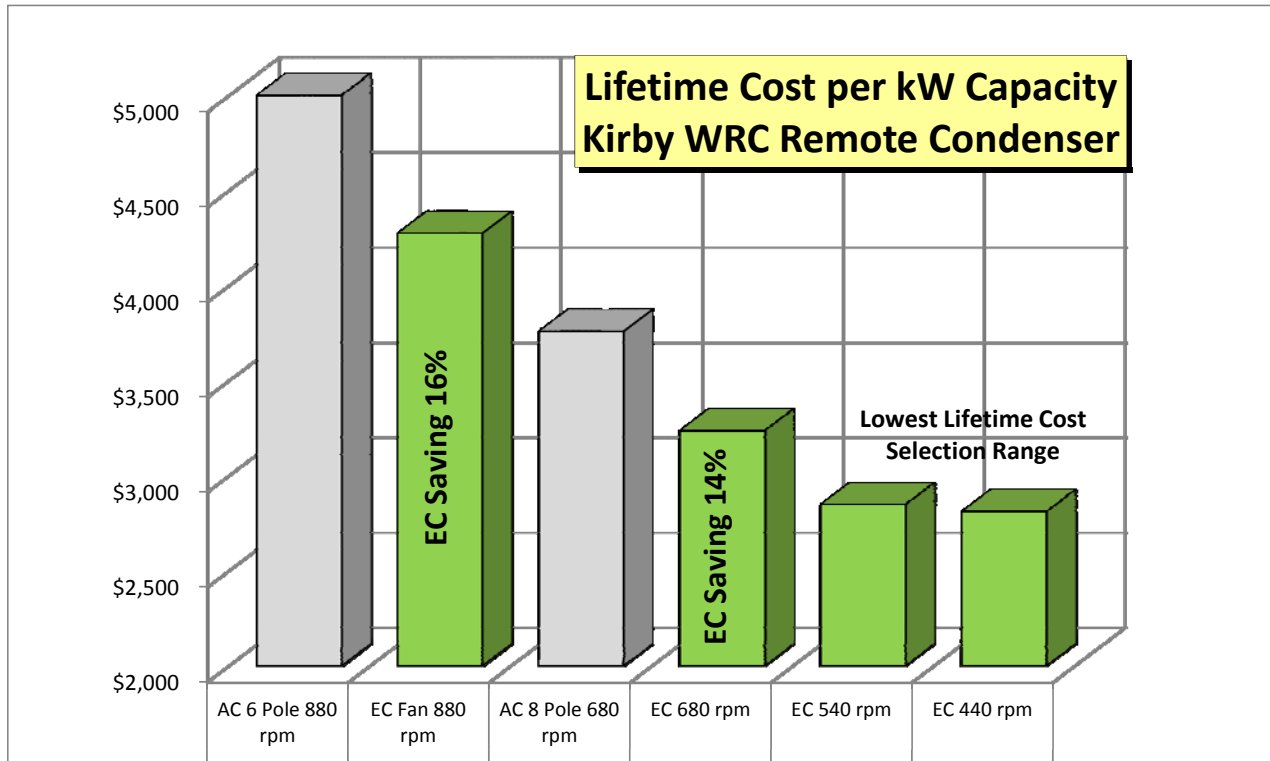
Below is a direct comparison of the Kirby WRC369B remote condenser to the 3 largest competitors in the Australian market. This example is with equivalent 800mm 6 Pole fans using the same or similar motor supplier:

|              | kW Capacity<br>R404A @ 1KTD | 800mm 6<br>Pole Fans | Power Input<br>per fan (watts) | Efficiency<br>W/kW/10K * | Energy Cost<br>Comparison |
|--------------|-----------------------------|----------------------|--------------------------------|--------------------------|---------------------------|
| WRC369B      | 36.9                        | 6                    | 2000                           | 32.52                    | 100%                      |
| Competitor 1 | 34.3                        | 8                    | 2000                           | 46.65                    | 143%                      |
| Competitor 2 | 36.9                        | 8                    | 2000                           | 43.36                    | 133%                      |
| Competitor 3 | 38.4                        | 8                    | 2000                           | 41.67                    | 128%                      |

\* Reference for this calculation : Australian Building Codes Board report by Coffey Environments  
Section J - Energy Rating for Air Cooled Condensers, 28th Nov 2007

The use of EC fans provides further savings over the life of the unit even after factoring in the additional capital cost. Heatcraft has calculated lifetime costs for the Kirby WRC Remote Condenser, not only at normal speeds but also to optimize selections for the lowest operational cost. This turns some commonly used selection strategies on their head.

The graph below illustrates the lifetime cost of Kirby WRC Remote Condensers calculated per kW of capacity.



It has been determined that when choosing EC Remote Condensers, the recommendation is to always select 6 row coils over 3,4 or 5 row coils to maximize 'free cooling' effect from less airflow and that the selection speed should be in the range of 540rpm to 440rpm at 'median' ambient temperature for the given location. Importantly, selection should never be at maximum speed / maximum airflow where the EC fan is at its highest power draw.

The venue owner achieves two added benefits from this selection. Firstly the noise level will be much lower and the EC fans ramping up and down slowly will attract little attention over the background noise. Secondly, if needed in extreme cases, there is approximately 18% additional capacity when overspeeding the fans above 880rpm. At maximum speed the power draw is almost double that at the 880rpm speed.

In this calculation Heatcraft have assumed an energy cost of \$0.15c per kW/h and a 10 year life running at 24 hours a day. Increases in energy cost over time will only increase the savings. The initial capital cost has been included and payback time on the additional cost for EC usually does not exceed 20 months.

For more information on the Kirby WRC Remote Condenser range, contact your Heatcraft Representative today on **13 23 50** or visit [www.heatcraft.com.au](http://www.heatcraft.com.au).



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