Improve HVAC System Efficiency

Increase Cooling Efficiency

- ARI Guideline V provides a method for calculating the combined system efficiency of an Airxchange wheel with standard DX equipment. For a copy of the ARI Guideline V **Click here**
- Per Guideline V calculations, a typical Airxchange wheel preconditions outdoor air at efficiencies equivalent to 60 EER leading to 40% system efficiency improvement.
- Generally equivalent performance is available for air handling systems.
- Airxchange wheels provide up to 4 tons of cooling per 1000 cfm of outdoor air

Increase Heating Efficiency

- The wheel has similar impact on the heating system reducing outdoor air heating costs by 70-80%
- Airxchange wheels provide up to 90 mbh of heating per 1000 cfm of outdoor air

Example:

	DX System	DX / ERV System
DX Cooling Capacity	20 Tons	15 Tons
ERV Cooling Capacity	0 Tons	6 Tons
Total Cooling Capacity	20 Tons	21 Tons
ERV Heating Capacity	0	160 mbh
Outdoor Air	2000 CFM (25%)	2000 CFM (33%)
EER	10	13.3
Peak Demand (kW)	24	18
Typical ERV Operating Savings	-	$2000 - $5000

Above example assumes 95°DB / 78°WB outdoor air conditions for cooling calculations.
Heating calculations assume -16°DB / -17°WB outdoor air conditions.
Savings calculation assume utility rates of $.08 kWh and $1/therm.