HGA

FULL HEAT RECOVERY ENGAGEMENT (FHRE) & PREDICTIVE OPTIMIZATION

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CASE STUDY

NEW 687,000 SF HOSPITAL
Cleveland, Ohio

3,000 Tons
14,000 MBH

Sensible HR at AHU
Predictive Optimization & FHRE

CASE STUDY

825,000 SF UNIVERSITY CAMPUS
Charlottesville, Virginia

2,400 Tons
19,500 MBH

Exhaust and Relief Air Energy Recovery
Predictive Optimization & FHRE

CASE STUDY

973,000 SF HOSPITAL EXPANSION
Pittsburgh, Pennsylvania

3,610 Tons
21,900 MBH

Exhaust Air Energy Recovery
Predictive Optimization & FHRE

CASE STUDY

EXISTING 1,400,000 SF OFFICE
Minneapolis, Minnesota

2,780 Tons
17,800 MBH

Sensible HR at AHU
Predictive Optimization & FHRE

CASE STUDY

NEW 236,000 SF OFFICE
Baltimore, Maryland

640 Tons
4,400 MBH

Energy Recovery Wheels
Predictive Optimization & FHRE

RESULTS

NEW 687,000 SF HOSPITAL
Cleveland, Ohio

FHREO SAVINGS
$262,000

ENERGY SAVINGS
45,800 mmbtu
66 EUI reduction
1,900 MT C02 reduction
51% gas savings

RESULTS

825,000 SF UNIVERSITY CAMPUS
Charlottesville, Virginia

FHREO SAVINGS
$240,300

ENERGY SAVINGS
31,200 mmbtu
43.5 EUI reduction
1,000 MT C02 reduction
38% gas savings

RESULTS

973,000 SF HOSPITAL EXPANSION
Pittsburgh, Pennsylvania

FHREO SAVINGS
$252,800

ENERGY SAVINGS
59,800 mmbtu
30 EUI reduction
1,850 MT C02 reduction
64% gas savings

RESULTS

EXISTING 1,400,000 SF OFFICE
Minneapolis, Minnesota

FHREO SAVINGS
$332,100

ENERGY SAVINGS
50,890 mmbtu
36 EUI reduction
2,040 MT C02 reduction
57% gas savings

RESULTS

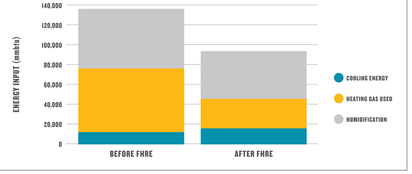
NEW 236,000 SF OFFICE
Baltimore, Maryland

FHREO SAVINGS
$80,200

ENERGY SAVINGS
13,050 mmbtu
55 EUI reduction
350 MT C02 reduction
75% gas savings

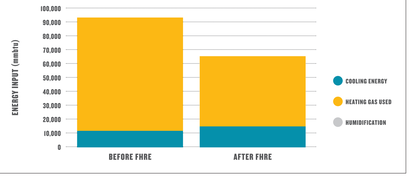
RESULTS

NEW 687,000 SF HOSPITAL
Cleveland, Ohio



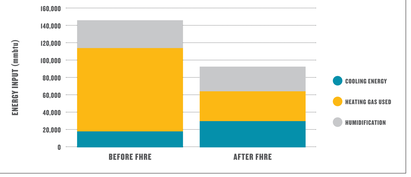
RESULTS

825,000 SF UNIVERSITY CAMPUS
Charlottesville, Virginia



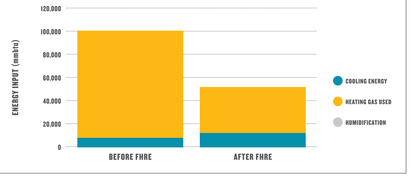
RESULTS

973,000 SF HOSPITAL EXPANSION
Pittsburgh, Pennsylvania



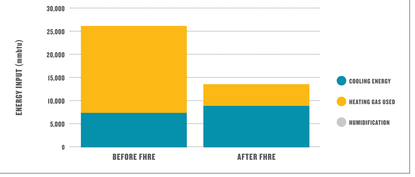
RESULTS

EXISTING 1,400,000 SF OFFICE
Minneapolis, Minnesota



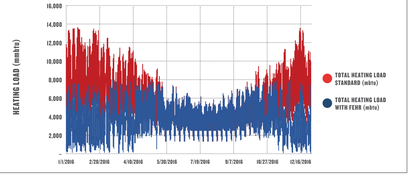
RESULTS

NEW 236,000 SF OFFICE
Baltimore, Maryland



HEATING LOAD PROFILE

NEW 687,000 SF HOSPITAL
Cleveland, Ohio



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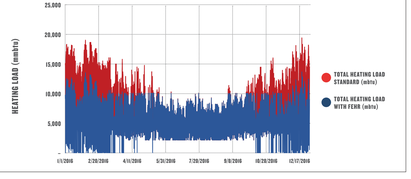
825,000 SF UNIVERSITY CAMPUS
Charlottesville, Virginia



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973,000 SF HOSPITAL EXPANSION
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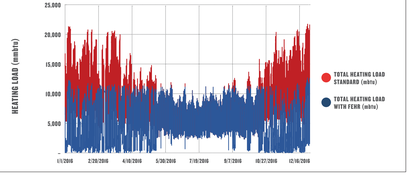

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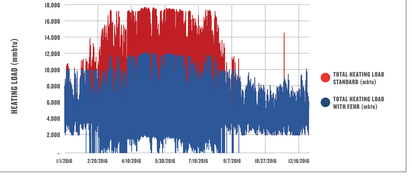

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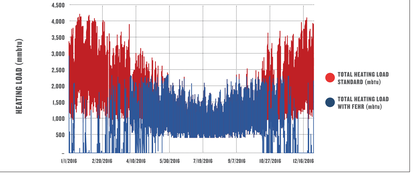
NEW 236,000 SF OFFICE
Baltimore, Maryland