

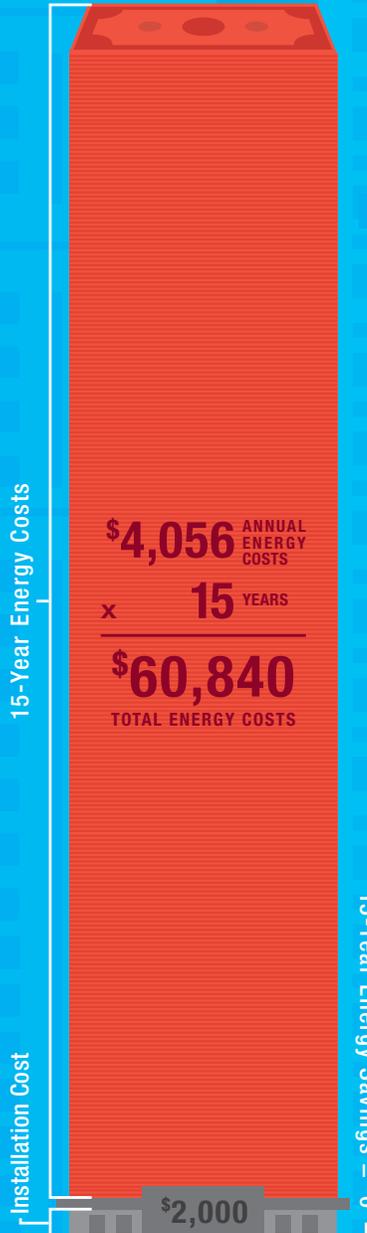
IMPROVE FINANCIAL PERFORMANCE

SPECIFY RENEWAIRE ERVs

AN INVESTMENT TODAY BUILDS SAVINGS TOMORROW



CONVENTIONAL EXHAUST ONLY



RENEWAIRE ERV



RENEWAIRE ERVs' FISCAL BENEFITS

Compared to conventional equipment, A RenewAire HE2XINH ERV (at 1,500 CFM in Minnesota with gas heat) will result in:

INCREASED CASH FLOW

RenewAire ERVs lower HVAC energy costs by up to 65%. The HE2XINH

ERV will save \$2,656 annually on energy costs for the life of the system.



SHORT PAYBACK

Competitive pricing and sizable HVAC energy savings mean a short payback. The HE2XINH ERV's payback is only 1.75 years.

1.75 YEARS

MAXIMIZED NPV

RenewAire ERVs generate tremendous value. At an additional investment of \$4,639, the HE2XINH ERV's Net Present Value (NPV) is \$31,371 over 15 years.



HIGHER IRR

Applying RenewAire ERV technology boosts returns. The Internal Rate of Return (IRR) of the HE2XINH ERV is an incredible 59%!

59%



*All data pertains to a RenewAire HE2XINH ERV when compared to conventional exhaust equipment at 1,500 CFM of OA in Minnesota using DX cooling and gas heat. Future energy costs calculated based on current energy costs.

RENEWAIRE ERVs

GENERATE LONG-TERM VALUE

VIA ENERGY SAVINGS

NPV for RenewAire ERV is \$32,000+ for 20 Years and \$18,500+ for 10 Years at initial investment of \$2,650

As buildings become more airtight, the need for more and better ventilation is critical. Without it, internally generated contaminants accumulate and cause deficient **indoor air quality (IAQ)**. The key is to find an effective ventilation system that not only enhances IAQ, but also boosts the bottom line. How can this be done? The best way is to understand **Net Present Value** or NPV.

NPV is a calculation that compares the amount invested today to future incoming cash flows after they are discounted by a specified rate of return.¹ A positive NPV is desired as it indicates that the projected earnings exceed the anticipated costs (present dollars).² Below is the NPV formula:

$$NPV = \sum_{t=1}^T \frac{C_t}{(1+r)^t} - C_0$$

C_t = net cash inflow during the period t
 C_0 = net initial investment cost
 r = discount rate
 t = number of time periods (years)

NPV for a RenewAire Energy Recovery Ventilator (ERV)

To determine the NPV of a RenewAire ERV in comparison to conventional equipment, we'll use the HE2XINH unit with an airflow rate of 1,500 CFM located in Kansas City, MO. Here's the data:

NPV Data for RenewAire HE2XINH ERV Compared to Conventional Equipment	
Item	Value
C_t (net cash inflow during the period t) The amount of annual energy savings generated by a RenewAire HE2XINH ERV compared to conventional equipment.	\$2,509.52
C₀ (net initial investment cost) The net initial investment cost of a RenewAire HE2XINH ERV to the end user after the costs of conventional ventilation and A/C systems are subtracted from the up-front installation cost.	2,650.00
r (discount rates)	3.125% (10-year fixed) 3.750% (20-year fixed)
t (period in years)	10 years, 20 years

The next step is to enter the data into the NPV equation and determine both the 10-year and 20-year NPVs of the RenewAire HE2XINH ERV:

NPV for RenewAire HE2XINH ERV Compared to Conventional Equipment	
10-Year Period	
NPV inputs	2,509.52/(1+0.03125)* [this is the energy savings with a 10-year fixed rate] x 10 [this is the time period] - 2,650.00 [this is the net initial investment cost] <i>*Annual compounding is incorporated.</i>
10-year NPV	\$18,620.80
20-Year Period	
NPV inputs	2,509.52/(1+0.0375)* [this is the energy savings with a 20-year fixed rate] x 20 [this is the time period] - 2,650.00 [this is the net initial investment cost] <i>*Annual compounding is incorporated.</i>
20-year NPV	\$32,222.80

With NPVs of over \$32,000 for 20 years and over \$18,500 for 10 years at an initial investment of \$2,650, it's clear that RenewAire ERVs generate major long-term value. A **minimal initial capital investment** will result in **decades of energy savings**, while at the same time enhancing IAQ—a win-win for building owners, engineers, contractors and occupants alike.

To see the full RenewAire ERV NPV calculations, visit <http://bit.ly/2stfraT>.

By Nick Agopian,
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Nick Agopian is Vice President of Sales and Marketing at RenewAire, a pioneer in enhancing indoor air quality in commercial and residential buildings of all sizes through high-efficiency, enthalpic-core, static-plate Energy Recovery Ventilation (ERV) systems. For more information, visit: www.renewaire.com.

¹ Accounting Coach; What is NPV?; <http://www.accountingcoach.com/blog/npv-net-present-value>

² Investopedia; Net Present Value – NPV; <http://www.investopedia.com/terms/n/npv.asp>



Read our full white paper on NPV here: <http://bit.ly/2stfraT>

