RENEWAIRE ERVs

THE FOUNDATION FOR NET-ZERO DESIGN

WHY IAQ MATTERS IN NET-ZERO DESIGN

A key component to building net zero is a tight envelope. However, air-sealing and insulating techniques trap contaminants within the space. **Without proper ventilation, health, wellness, productivity** and even **cognitive function suffer**.

RenewAire ERVs replace stale indoor air with fresh and filtered outdoor air that's tempered with otherwise-wasted energy from the exhaust airstream, resulting in **optimized energy efficiency, net-zero attainment, enhanced IAQ and significant cost savings**.

NET-ZERO BUILDING DESIGN

SITE ENERGY GENERATION

A net-zero building produces at least as much renewable energy as it uses. **RenewAire ERVs** support this effort by **reducing total HVAC loads**, resulting in decreased energy consumption and less energy needed to power the building.

HVAC DESIGN

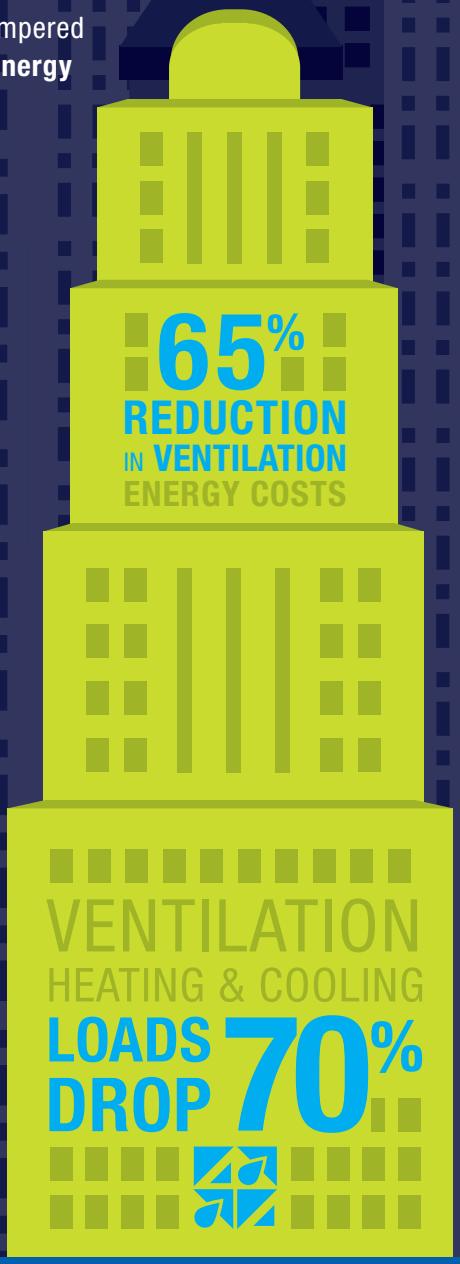
HVAC designs should apply high-efficiency certified equipment or high-efficiency mechanical systems. **Energy-efficient RenewAire ERVs** decrease outdoor-air loads, thus reducing the size of air conditioning and heating equipment and boosting efficiencies.

TIGHT BUILDING ENVELOPE

A tight building envelope decreases internal load requirements impacted by outdoor climatic conditions; however, it also traps in contaminants, causing deficient IAQ. Ventilate with **RenewAire ERVs** to **save energy**, **enhance IAQ** and **improve wellbeing**.

VENTILATION

RenewAire ERVs passively precondition the outside air coming in with the otherwise-wasted sensible and latent energy of the exhaust air going out. This moderates temperature and moisture, **decreases HVAC loads and equipment needs, drives operational efficiencies, conserves energy** and leads to major cost savings. Over 15 years, a conventional exhaust-only fan will cost $60,840, whereas a RenewAire ERV will cost only $21,000, saving you $39,840 (65%) in energy costs.*



SPECIFY A RENEWAIRE ERV TODAY TO ACHIEVE NET ZERO, ENHANCE IAQ AND SAVE MONEY

*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.

Read our white paper on the NPV of a RenewAire ERV: http://bit.ly/2cXX9oB

RenewAire®
Energy Recovery Ventilation

RenewAire.com
800.627.4499

ACHIEVE NET ZERO, ENHANCE IAQ & SAVE MONEY

WITH RENEWAIRE ERVs

By Nick Agopian
RenewAire
Vice President, Sales and Marketing

CHALLENGE:

Can Energy Savings Coexist with Enhanced IAQ?

A net-zero energy building uses advanced design, superior building systems and a tight envelope to achieve zero overall energy consumption, and the total energy used by the building is provided by renewable sources. Compared to conventional construction, net-zero buildings use much less energy, realize significant cost savings, are carbon neutral and support the environment.

However, a serious—yet invisible—problem can lurk within the walls of a net-zero building. Air-sealing methodologies prevent air leakage, which is a net-zero key component, but this also traps in dangerous contaminants, such as toxins, vapors, gases, chemicals, odors and other Total Volatile Organic Compounds (TVOCs). Without proper ventilation, the result is deficient indoor air quality (IAQ), which adversely affects health, wellness, productivity and cognitive function.

SOLUTION:

Optimize Energy Efficiency & Enhance IAQ with RenewAire ERVs

Increased and balanced ventilation is the most effective way to enhance IAQ, but conventional systems waste energy. The best way to **enhance IAQ** while also meeting stringent **net-zero energy-use requirements is via RenewAire energy recovery ventilators (ERVs).** By replacing stale indoor air with fresh and filtered outdoor air that's tempered with the exhaust airstream's otherwise-wasted energy, **RenewAire ERVs optimize energy efficiency and enhance IAQ**.

What's more, in addition to conserving energy, this passive preconditioning of the outdoor air coming in moderates temperatures and moisture, decreases HVAC loads and equipment needs, drives operational efficiencies and leads to major cost savings. In fact, compared to conventional equipment, **RenewAire ERVs can reduce ventilation energy costs by 65 percent and can decrease ventilation heating and cooling loads by 70 percent**.[1]

RenewAire HE2XINH ERV shown

RESULTS:

Achieve Net Zero, Enhance IAQ & Save Money

Installing RenewAire ERVs ensures that: 1) Ventilation energy will be used as efficiently as possible, thus meeting net-zero goals, 2) Occupants will breathe in cleaner and healthier indoor air, thus improving health and wellbeing and 3) Owners will see substantial long-term energy cost savings, thus boosting the bottom line. Therefore, RenewAire ERVs' energy-efficient, cost-effective and sustainable ventilation should be the foundation for any net-zero design.

To achieve net zero, enhance IAQ and save money, specify a RenewAire ERV today by contacting us at renewaire.com or 800-627-4499.

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.*

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RenewAire® Energy Recovery Ventilation

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