RenewAire®
Energy Recovery Ventilation

Lower Costs and Healthier Air For Senior Living Communities

ENERGY RECOVERY VENTILATION

RENEWAIRE EVERYWHERE

EVERY GEOGRAPHY, EVERY CLIMATE, EVERY HOME,
EVERY BUILDING AND EVERY APPLICATION

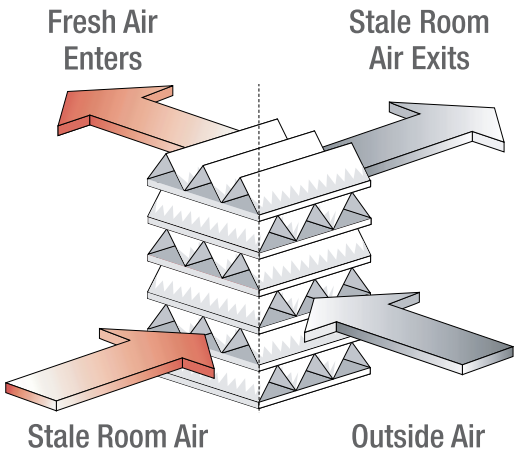
WHY ERVs ARE A SMART CHOICE FOR SENIOR LIVING

Maintaining a healthy, comfortable environment in senior living communities is crucial for the wellbeing of elderly residents. Proper ventilation plays a key role in achieving this goal, and energy recovery ventilators (ERVs) are increasingly becoming the go-to solution.

What Is an Energy Recovery Ventilator?

An ERV is a system that provides ventilation in an energy-efficient manner. Through increased airflow, ERVs can help to improve indoor air quality (IAQ) without raising costs.

In the summer, warm and humid outside air is precooled and dehumidified via the total energy from the outgoing cool interior air. In the winter, cold and dry outside air is preheated and humidified via the total energy from the outgoing warm interior air. Less energy is needed for conditioning and ventilation, and HVAC equipment can be downsized.



ERVs provide energy-efficient ventilation by transferring heat between airstreams

Facilities can reduce ventilation energy costs up to 65% with RenewAire HE Series ERVs

Energy Efficiency and Cost Savings

For the average U.S. commercial building, HVAC systems account for **52% of total energy consumption.**[1] This represents one of the largest opportunities for facility managers to find energy-efficient solutions and reduce their energy costs.

One of the best ways to cut heating and cooling costs is through energy recovery ventilation, which recycles heat and humidity from exhausted air. For senior living communities, this translates to lower energy bills without compromising indoor comfort. **With RenewAire HE Series ERVs, facilities can reduce ventilation energy costs up to 65%** and decrease ventilation heating and cooling loads up to 70%.[2]

RenewAire HE05 ERV
For Light Commercial Applications

1. "Use of Energy Explained: Energy Use in Commercial Buildings," U.S. Energy Information Administration, https://bit.ly/4pm2Qi5
2. "Net Zero Buildings," RenewAire, https://bit.ly/3LODcUs

Enhanced Indoor Air Quality

Americans spend about **90% of their time indoors**, and indoor air can be **two to five times more polluted** than outdoor air.[3] As energy-efficient buildings get tighter to seal weather out, they seal in contaminants, causing IAQ to deteriorate. Typical contaminants include off-gassing from building materials, cooking and cleaning vapors, and biological contaminants like mold, viruses, allergens and excess C02.

One of the best ways to enhance IAQ is through increased and balanced ventilation using ERVs—bringing in fresh outdoor air while expelling stale indoor air containing pollutants. This consistent airflow helps reduce C02, airborne particles, and humidity levels, **making senior living communities safer and more comfortable for residents and staff.**

Healthier Environment for Residents

Older adults are particularly susceptible to health risks associated with poor air quality due to sensitive respiratory systems and weakened immune defenses. **Deficient IAQ can aggravate existing chronic health conditions common among seniors**,[4] including allergies, asthma, lung disease, diabetes, heart disease, cancer and more. In addition, **poor IAQ can significantly impair cognitive function**[5] **and quality of sleep.**[6]

By increasing ventilation using ERVs, senior living communities can enhance their IAQ to provide a healthier environment for residents and avoid conditions that would exacerbate these chronic health issues. Studies have shown that a **high-level IAQ can reduce the spread of pathogens**[7] **and can help patients recover faster from illnesses.**[8]

63% of families would choose one senior living facility over another based on indoor air quality

Residents Value IAQ

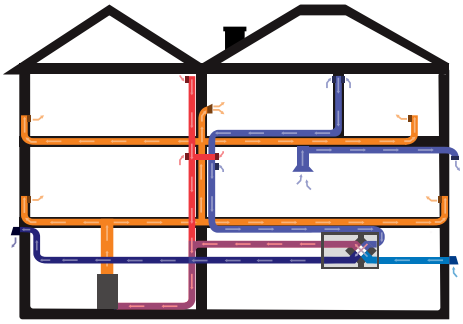
Seniors ranked IAQ as the third highest concern they had, behind quality of care and safety, according to a survey by Delos.[9] The survey also found that **46% felt that air purification measures like ventilation and filtration were important or a necessity** in deciding where to live. 63% of respondents indicated they would likely choose one facility over another based on prioritization of indoor air quality.

RenewAire Aeri™ MT ERV
For Residential Applications

3. "Clean Air Indoors," American Lung Association, https://bit.ly/4nX2OMf
4. Ndlovu, N., et. al., "Impact of Indoor Air Pollutants on the Cardiovascular Health Outcomes of Older Adults," Clinical Interventions in Aging, https://bit.ly/4i0Lbd2
5. Ailshire, J., et. al., "Fine Particulate Matter Air Pollution and Cognitive Function Among Older US Adults," American Journal of Epidemiology, https://bit.ly/47OiHjm
6. Li, L., et. al., "Pilot Study of the Effects of Ventilation and Ventilation Noise on Sleep Quality in the Young and Elderly," Indoor Air, https://bit.ly/4nXbuCx
7. Arjmandi, H., et. al., "Minimizing the COVID-19 Spread in Hospitals Through Optimization of Ventilation Systems," Physics of Fluids, https://bit.ly/49YQXdf
8. Al-Rajhi, S., et. al., "IAQ in Hospitals – Better Health through Indoor Air Quality Awareness," Texas A&M University, https://bit.ly/4ieowu8
9. Campanella, C., "The Importance of Indoor Air Quality for Prospective Residents of Senior Living," McKnight's Senior Living, https://bit.ly/3LliLZr

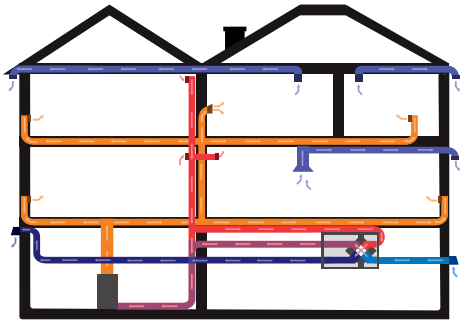
ERV Installation Strategies

Whether you're installing a new HVAC system or planning a retrofit, RenewAire offers exhaust strategies that work for either:



New Construction
Central Exhaust Strategy

For new construction projects, central exhaust provides an ample supply of filtered outdoor air and replaces bathroom exhaust fans, capturing energy from bathrooms and kitchens that would otherwise be wasted.



Retrofitting
General Exhaust Strategy

For retrofitting projects, a general exhaust strategy utilizes existing ductwork and exhaust fans. This allows fresh air to be supplied to the furnace/AC via return air duct connections, commonly referred to as partial bypass.

Why Choose RenewAire ERVs Over Other Ventilation Options?

For over 40 years, RenewAire ERVs have been recognized for their ease of use, reliability, and energy savings.

- **High ROI:** With a short payback and high rate of return, RenewAire ERVs generate significant savings. A minimal capital investment will result in decades of energy savings.
- **Easy Installation:** Our ERVs can be mounted in multiple orientations and do not require drain pans, making them a breeze to install. Our units also provide a single exhaust point, requiring less equipment to purchase and install.
- **Reliable Operation:** Our built-to-last ERVs have lifespans of 25+ years and operate consistently year-round in every climate, including hot, humid, and sub-zero environments.
- **Easy Maintenance:** Our ERVs are easy to maintain—simply check the filters every three months and replace as needed. And once each year, vacuum the ERV core face to remove any particles—no washing required.

Next Steps

RenewAire ERVs offer a balanced solution for senior living facilities looking to lower their heating and cooling costs while improving the health and wellbeing of residents and staff. To learn more, visit our website and contact your local sales rep:

Learn More at RenewAire.com/Find-My-Rep/