YORK EcoAdvance™: Target Installation Guide

Vertical Markets – Commercial Real Estate, Higher Education, Government Offices, K-12

- ✓ The 1000E unit will work in virtually any application where ASHRAE 62.1 applies. *However*, the primary objective is to find optimal installation opportunities for this new product in the market.

Target Building Characteristics

- ❖ 100,000+ sq. ft. of Conditioned Area
- ❖ Long Operating Hours – Minimum 12 hrs/day, Mon – Fri
- ❖ High Occupant Density – **Owner Occupied Preferred**
- ❖ High Ventilation Rates + Low Exhaust Requirements
  - Generally, most commercial buildings are only required to exhaust restrooms, janitors' closets, printer rooms, etc.
  - High Relief Air flow is an indication of an excellent EcoAdvance opportunity (ventilation requirements heavily outweigh required exhaust)
- ❖ Chilled Water Systems with multiple, similar AHUs roughly 15,000 – 30,000 CFM (supply air)
  - One 1000E unit is designed to serve a 10,000 – 30,000 CFM AHU
- ❖ Adequate space in mechanical rooms for the module & associated ducting (see Technical Specs)
- ❖ High Energy Rates, especially High Peak Demand Billing Rates
- ❖ LEED/High Performance Buildings that are ***not*** meeting performance goals

Things to Avoid

- o BUILDINGS & CHARACTERISTICS DIFFERING SIGNIFICANTLY FROM THE CRITERIA ABOVE.
- o Special Use Areas: Labs, Kitchens, Cafeterias, etc.
  - The potential for the 1000E to reduce Outside Air intake is limited in applications where exhaust requirements are high and/or fixed by other ASHRAE/Design Standards
- o Small projects: longer payback and less valuable performance data
  - Partial Building projects are also undesirable as it makes the impact of the unit(s) harder to accurately M&V
- o Functional Demand Controlled Ventilation (DCV) Systems
  - DCV actively reduces OA intake during low occupancy
- o Buildings where Outside Air Dampers have been manually closed by the Building Staff
  - While closed OA dampers can directly lead to poor IAQ, the lack of real world energy savings significantly weakens the financial value of a retrofit
- o Healthcare
  - Hospitals are ventilated in accordance with ASHRAE Standard 170 and thus are not currently EcoAdvance targets

Installation Notes:

- ❖ EcoAdvance units can easily be placed in the mechanical room with the associated AHUs
- ❖ Building exhaust is easily accessible for Regeneration ducting, and minimal duct is required to and from the AHU Return Air. Best case scenario is plenum return, where no return air duct to and from the unit is required
- ❖ Large, multi-story buildings where the configuration is identical on most floors are **outstanding opportunities** with exceptionally **low risk and install costs**
- ❖ Mechanical Rooms with exterior walls and existing louvers are also good targets