



**Customer:** Renova AB  
**Website:** [www.renova.se](http://www.renova.se)  
**Customer size:** 780 employees  
**Country or region:** Gothenburg, Sweden  
**Industry:** Waste recycling, waste-to-energy

### Customer Profile

Renova AB is the leading waste recycling and waste to energy company in western Sweden owned by the municipalities in and around the city of Gothenburg. It produces a significant share of the district heating and electricity of the city of Gothenburg.

### System Description

- Application
  - Malodor from organic waste reception and processing
- Condition
  - 72 000 m<sup>3</sup>/h process gas flow
  - Point extraction from machinery and general extraction from building
- Solution
  - ColdOx™ + polishing through carbon bed
- Result
  - Compact installation
  - Competitive cost of operation and maintenance
  - 98 % odor removal
  - Carbon change every 24 months

For more information about our references, please visit:  
[www.centriair.com](http://www.centriair.com)

## Renova AB implements ColdOx™ to abate malodor from organic waste reception and processing.

*"800 meters in the wind direction from our plant there is a residential area. There used to be real issues with odor from our processing facility. Residents stayed indoors to avoid the smell. A local action group was formed to organize the complaints. Since we installed the ColdOx™ system, we haven't had one single odor complaint. In fact, the action group doesn't even come to our meetings anymore. Moreover, our indoor situation has greatly improved. You can be at the facility all day and when you go home, there is no lingering smell in your clothes like there used to be"*

Peter Skruf, Site Manager Renova Marieholm facility

To eliminate potential nuisance from malodor from its organic waste processing facility, Renova invested in ColdOx™. The system effectively eliminates almost all odor emissions at significantly lower energy use compared to thermal oxidation.

### Business need

Renova is the largest waste recycling and waste to energy company in western Sweden. At the Renova Marieholm facility, 40 000 ton per year of organic waste from households, food processing and grocery stores is processed into a slurry. The slurry is then sent for anaerobic digestion and turned into biogas. In 2012, after years of serious complaints from neighbouring residential areas, Renova took into operation a new enclosed processing facility. The requirement on odor was clear: no perceptible release of odor!

### Solution

The new processing facility was equipped with a ColdOx™ system, including a final polishing carbon bed. The ColdOx™ system is based on oxidation of volatile organic compounds through the use of high intensity UV, excess ozone, and photo chemical oxidation supported by special purpose catalysts. The system achieves oxidation rates of up to 98% which is comparable

to thermal oxidation but does so at ambient temperatures and with minimum energy requirement. In this case the ColdOx system was fitted with a carbon bed as a final polishing stage. The load to the bed is very low, minimizing maintenance and cost.

### Benefits

Through ColdOx™, Renova has eliminated 98% of the odor emissions from the Marieholm facility and there has not been one single complaint from neighbours. The environment inside the facility has been greatly improved due to efficient point extraction from machinery and through general ventilation. Due to the high oxidation rate, the load to the carbon bed is minimized, enabling reduced carbon volume and need for replacement. The system now achieves a carbon life of 24 months, greatly reducing the maintenance cost.

