

# THIS IS RENOVA



## FOCUSING ON THE CUSTOMER, ENVIRONMENT AND COMMUNITY BENEFIT

The Renova Group is owned by ten municipalities in western Sweden. Our mission is to work together with our owner municipalities in taking a long term responsibility for waste and recycling. We aim to deliver community benefit through business activities which actively contribute to sustainable development within our owners' region.

The Group consists of the parent company Renova AB and subsidiary Renova Miljö AB.

The parent company is the owner-municipalities' own waste expert and carries out tasks directly allocated by them. The subsidiary Renova Miljö AB operates on a competitive market and offers complete waste and recycling solutions to businesses, municipalities and other public enterprises in our owners' region.

Our goal is to always be able to offer the market's best range of services within our industry, with environment, quality and customer service remaining paramount.

Activities within the Group:

- Collection and transportation of all types of waste and recyclable materials
- Sustainable waste management
- Services for property owners and the construction industry
- Advice and training



Renova's CEO Anders Åström.

## IN THE FOREFRONT OF VEHICLE AND FUEL DEVELOPMENT

Together with owners and partners Renova has a long history of driving vehicle and fuel development with sustainability in focus. During 2019 the world's first totally electrified refuse truck starts its operations in the Renova fleet.

Renova also participates in the development of an electrified fuel cell refuse truck, which is fuelled by hydrogen.

All vehicles in Renova's fleet use renewable fuels. Most of them use the synthetic diesel HVO, which is made from offal.

Smart route planning and eco driving are other important tools for Renova to reduce its environmental impact.



The world's first totally electrified refuse truck!

## CIRCULAR ECONOMY

Renova's vision is "We value everything – for a sustainable tomorrow". Our mission is to decrease waste. A cyclic economical system where resources are used and re-used in the most efficient way, a circular economy, is a prerequisite for a sustainable development. In a circular economy products are rented rather than bought, repaired and re-used rather than thrown away and designed to enable recycling.

*This is Renova's illustration of circular economy. Read more at [www.renova.se/hallbarhet](http://www.renova.se/hallbarhet).*





## EFFICIENT PLANTS WITH ENVIRONMENTAL BENEFITS

### Waste-to-energy plant

Renova's waste-to-energy plant at Sävenäs in Gothenburg is one of the world's most advanced facilities for the incineration of waste for the production of heating and electricity. Around 300 trucks deliver waste to the plant on a daily basis. The waste is burned in four furnaces and the thermal energy generated is then transformed into electricity and district heating.

From every tonne of waste combusted today, we recover 3.3 MWh of energy in the form of electricity and district heating. 60 percent of our electricity production is labelled as biofuel-based origin. Every year, the waste-to-energy plant provides approx. 33 percent of district heating in the region's network and electricity covering the consumption of 70.000 apartments. The flue gases from the combustion process are cleaned in several stages. A plant for extraction and recycling of zinc from the cleaning residues is now being planned.

Adjacent to the waste-to-energy plant is a reception facility for combustible biohazardous and classified waste. The facility also includes the Renova Environment Centre, where field trips and training courses are held.



Sävenäs Waste-to-Energy Plant, Gothenburg.

bustible industrial waste, contaminated soils and some types of hazardous waste at our Fläskebo landfill site.

On the Tagene landfill site ashes from waste incineration and rubble is deposited.

We extract scrap metal and municipal solid waste incinerator (MSWI) bottom ash from the cinders from our waste-to-energy plant so that these materials can be recycled/reused. This area is also used for interim storage of various materials. A landfill for inert waste is being built at Tagene (inert material is physically, chemically and biologically stable).

### Hazardous waste and electronics

We receive, sort and temporarily store hazardous waste from businesses at our new facility at Sävenäs. The waste is then treated by Renova or one of our partners for recycling, destruction or safe storage.

Renova also sorts small batteries collected from households in a large number of municipalities in Sweden.

We take in, sort and clean electronic waste to enable recycling of the materials.

### Transshipment stations

To reduce the number of waste shipments, Renova reloads household waste into larger vehicles for shipment to energy recovery facilities.

### Sorting

Waste from businesses, construction sites, etc, is brought to our facilities in Skräppekärr and Högsbo for further sorting. Recycling centres for businesses are also located here.

All recyclable materials are recovered. Materials are also stored prior to transport to various recycling companies. We also have a baling facility, mainly used for corrugated cardboard.

### Workshops and truck/car wash

Renova's maintenance workshop repairs and maintains vehicles, containers and waste handling equipment for our own vehicles and external customers. We also have a heavy vehicle wash, at which we offer eco-friendly washing.



Sandra Dassoum, site manager Marieholm.

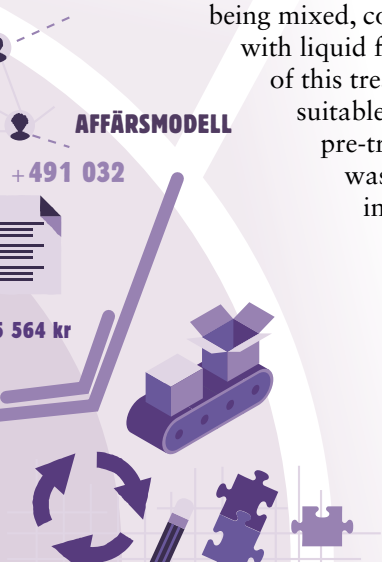
### Treatment facility for biological waste

The Group's treatment facility for sorted food waste is located at Marieholm in Gothenburg. After being mixed, compressed, strained and mixed with liquid food waste, the final product of this treatment facility is a slurry suitable for biogas production. The pre-treatment facility for biological waste is an important step towards increased biogas production.

The Marieholm plant also composts garden waste into nutritious soil and compost.

### Landfills

We offer the deposition of non-com-

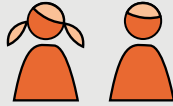


## SALES RENOVA GROUP



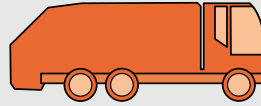
**MSEK 1,315**

## NUMBERS OF EMPLOYEES

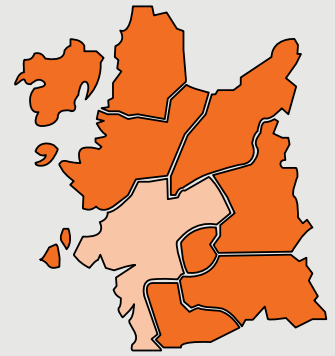


**750**

## TREATED WASTE



**1 087,000 TONNES**



## FLEET



### **250 HEAVY TRUCKS**

Running on 100% renewable fuel

## ENERGY PRODUCED



**1,506,000 MWH**

District heating



**279 000 MWH**

Electricity

## RENOVA'S OWNERS

### **10 MUNICIPALITIES**

Ale, Göteborg, Härryda, Kungälv, Lerum, Mölndal, Partille, Stenungsund, Tjörn, Öckerö

## RENOVA ECO ACADEMY, COOPERATIONS AND SCHOLARSHIP

Renova Eco Academy is the umbrella for our education and visitor activities.

Eco Waste School for upper secondary school students includes study visits, exercises and discussions where we invite students to pose questions about how to achieve a sustainable society.

We receive visitors from all over the

world at our facilities, especially our waste-to-energy plant.

We organise courses for companies and organisations. These courses deal with sorting at the source, the management of hazardous waste and other environmental issues.

We cooperate with universities and other tertiary education institutions on research in waste management,

the environment and transportation solutions.

There is no shortage of stimulating topics for research projects at Renova.

Since 2003, Renova has awarded an annual environmental award to young researchers from either Gothenburg University or Chalmers University of Technology.

## RENOVA GROUP LOCATIONS

### Göteborg

*Bönekulla* - garage.

*Holmen* - administration, vehicle workshop, stores, garage and eco-friendly vehicle wash.

*Högsbo* - transshipment, sorting, interim storage and recycling for companies.

*Marieholm* - treatment facility for biological waste and composting garden waste.

*Ringön* - sheet metal and machine shop.

*Rödingen* - sorting and interim storage, baling.

*Skräppekärr* - sorting and interim storage, recycling for companies.

*Sävenäs* - waste-to-energy plant, reception of hazardous waste and electronics, Renova's environment centre and administration.

*Tagene* - landfill, interim storage, sorting and transshipment.

### Härryda

*Fläskebo* - interim storage and landfill.

### Kungälv

*Rollsbo* - administration, garage and transshipment.

*Munkegårde* - sorting, interim storage, transshipment.

### Lerum

Transshipment station.

### Mölndal

Transshipment station.

### Stenungsund

*Kläpp* - transshipment, sorting, interim storage and recycling centre.

### Recycling centres

We operate recycling centres in Gothenburg and Stenungsund on behalf of these municipalities.

**renova.se**

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