



ZERO EMISSION IN 2035

REPORT 2022

**HUTCHISON PORTS ECT DELTA
HUTCHISON PORTS ECT EUROMAX**

Rotterdam, October 2022



INTRODUCTION

This is the first sustainability report that will be published annually by Hutchison Ports ECT Rotterdam (ECT). The relevant objectives and projects are specified in the report “Zero emission in 2035, sustainability ambition and activities”, which was published on the website last year. By means of the current and subsequent reports, we aim to communicate the developments in this area.

As one of Europe’s largest and most advanced container terminal operators, ECT holds an important economic and social position. For this reason, ECT operates in a socially responsible manner. Furthermore, ECT is aware of the ecological impact of its activities and is committed to protecting the environment and helping to shape the move towards a more sustainable society.

In word and deed, ECT endorses the ambition of European and national governments to significantly reduce the carbon footprint of economic activities. ECT has set itself the target of zero-emissions operations at the ECT Delta and ECT Euromax terminals by 2035.

In that respect, ECT strives to seamlessly integrate sustainability initiatives and activities into its existing and new business processes, taking into account the investment cycles.

This is not something new for ECT; in the late 1980s and early 1990s, ECT developed the world’s first automated container terminal. This terminal, the Delta/Sea-Land terminal, combined a completely new concept for efficiently handling containers and container ships with a focus on improved energy efficiency, in terms of both operations and hinterland transport. In 1982, ECT commenced with the development of an inland network for multimodal and intermodal transport. In 2010, ECT introduced European Gateway Services, the company’s own inter- and synchronodal network operator. Furthermore, ECT has been offering collective company transport for its employees since the 1990s.

ECT DELTA AND ECT EUROMAX ON THE WAY TO ZERO EMISSIONS



1. ECT; A MODERN CONTAINER TERMINAL OPERATOR

Hutchison Ports ECT Rotterdam is one of Europe's leading and most advanced container terminal operators. In Rotterdam, ECT operates the ECT Delta terminal and the ECT Euromax terminal. Both are situated at the Maasvlakte, directly on the North Sea.

From the very first container ship that visited Europe in 1966, so for more than 55 years already, ECT has been a leader in container handling. ECT has developed the Maasvlakte into the centre for container handling in Europe. To this day, ECT still has the ambition to continuously be in the vanguard of new developments that further boost service and performance.

Through European Gateway Services (EGS), ECT offers shipping lines, logistics service providers, shippers and operators an extensive network of high-frequency rail and inland shipping services. These directly connect the deepsea terminals in Rotterdam with a substantial number of inland terminals at strategic locations throughout the European market.

With MyTerminal, ECT is now taking major steps in further opening up real time operational information via an online platform. This service provision for all customer groups ensures more efficient and sustainable logistics processes.

Hutchison Ports ECT Rotterdam is part of Hutchison Ports, a subsidiary of multinational CK Hutchison Holdings in Hong Kong. Hutchison Ports is the world's largest port investor, developer and operator. Hutchison Ports is currently active in 52 ports across 26 countries in Asia, the Middle East, Africa, Europe, America and Australia. In 2021, the port network of Hutchison Ports handled more than 88 million TEU worldwide.



The first containership in 1966.



With EGS 'Straight into Europe'.

MYTERMINAL

2. GOVERNMENT POLICIES

Increasingly, we see ourselves confronted with the negative impact of human actions on our climate. Droughts or floodings, storms and melting ice caps; climate change affects us all, everywhere across the globe. ECT therefore supports the ambitions of the European Union and the Dutch government to realise a more sustainable society and to decrease CO₂ and NO_x emissions and to even reduce these to zero.

Directly and through its branch organisations, both at national and European level, ECT is closely involved in the discussions how these ambitions can be realised. Over the past year, the emphasis has been on the plans presented by the European Commission in mid-2022 under the heading “Fit for 55”, with which Europe aims to reduce its CO₂ emissions by 55% by 2030 compared to 1990. By 2050, Europe is to be the first climate-neutral continent.

The European Union has laid down its climate objectives in legislation, which the member states must adhere to. In the Netherlands, this has resulted in the National Climate Agreement, for example.

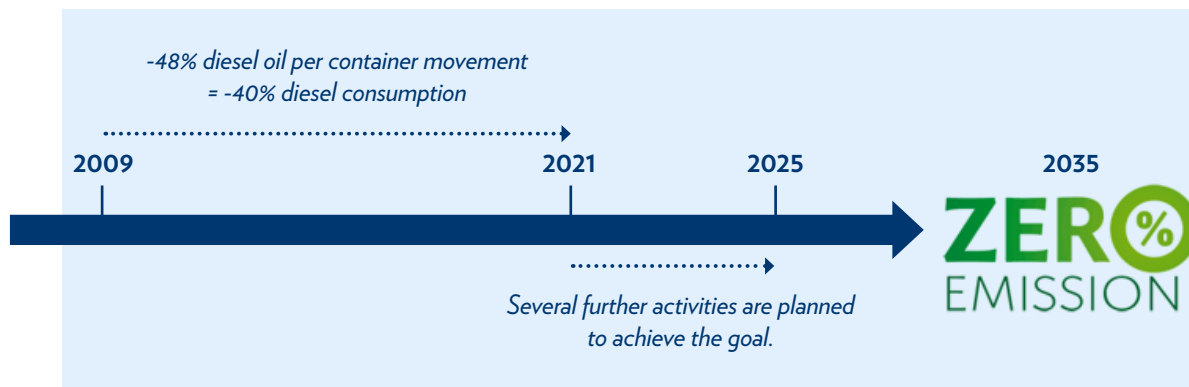
Topics that are relevant to ECT include:

- shore-side electricity for visiting vessels;
- investing in more energy-efficient and sustainable equipment;
- energy efficiency of the buildings;
- work-related personal mobility, and
- sustainable hinterland transport via EGS.

ECT is committed to this policy and will make every reasonable effort to realise the set of goals and, if possible, to achieve them sooner. However, ECT does ask governments for logical and feasible measures that entail minimal administrative obligations.

3. ECT'S ROADMAP

ECT has been committed to sustainability goals for some time already. The objectives and projects have been outlined in the aforementioned report “Zero emission in 2035, sustainability ambition and activities”; including the objectives that have already been achieved. For example, between 2009 and 2021, ECT managed to achieve a reduction of 48% in the use of diesel oil per container movement at the ECT Delta and ECT Euromax terminals. In absolute terms, this meant a 40% reduction in diesel consumption. In recent years, the focus – also in terms of sustainability - has predominantly been on further optimisation of the existing processes, investments in energy-efficient equipment, such as straddle carriers and automated guided vehicles (AGVs), the commissioning of electric vehicles, the introduction of improved and more comprehensive energy metering systems at the ECT Delta terminal and further research.



The following activities are planned for the period 2022 –2025:

- further expansion of the network of EV charging stations at the various ECT locations;
- further optimisation of terminal processes;
- introduction of an energy measuring system at the ECT Euromax terminal;
- replacement of fluorescent lighting on the cranes and platforms with LED lighting;
- replacement of the high-pressure sodium vapour lamps in the high light poles by LED panels;
- planned purchase of fully electric terminal trucks;
- the introduction of shore-side electricity for visiting vessels will be further elaborated together with the Port of Rotterdam Authority;
- equipping the trains of EGS with the latest electric locomotives and a very modern fleet of wagons. This involves traction supplier RTB Cargo;
- the commissioning of 10 new hybrid straddle carriers in the course of 2022;
- delivery of 77 new AGVs from the second half of 2022. These are diesel-hybrid and modular, with the option to adjust them to zero emissions in due time. The transition to fully electric will have to take place gradually, as the equipment and loading facilities have to be integrated in existing terminals;
- switch to 100% European wind-generated electricity from 2023;
- office buildings will be adapted to minimally meet the energy label C requirements before or in 2023 (national legislation/EED), and
- the transition from diesel equipment to zero-emissions equipment from 2025 is under preparation, including the required infrastructural adjustments.

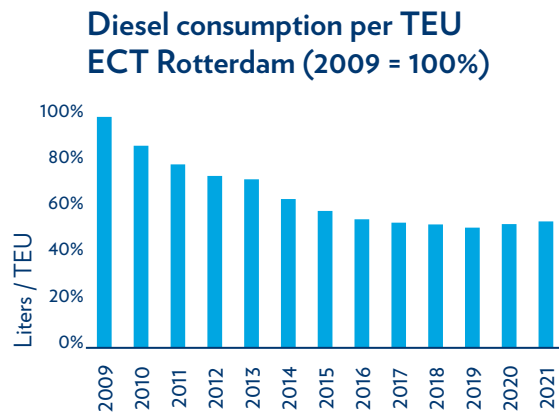
The above list is not exhaustive; promising projects may be added.

4. PERFORMANCE 2021

Below some information to provide insight into the performance of ECT on sustainability topics.

4.1 DIESEL

As stated before, ECT has achieved a reduction in diesel consumption of 48% per container movement and 40% in absolute terms compared to 2009. This means a 40% reduction in the consumption of diesel fuel. This trend is expected to continue in the coming years, for example due to the commissioning of new hybrid AGVs, electrification of equipment and more efficient logistics.

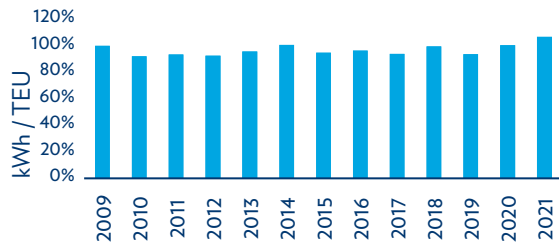


4.2 ELECTRICITY

The electricity consumption per TEU shows a slight upward trend. This is attributable to the increase in the number of reefer containers. This indicator will expectedly continue to increase under the influence of further electrification.

ECT to fully switches to 100% European wind-generated electricity from 2023. The CO₂ emissions in terms of electricity used will consequently be zero.

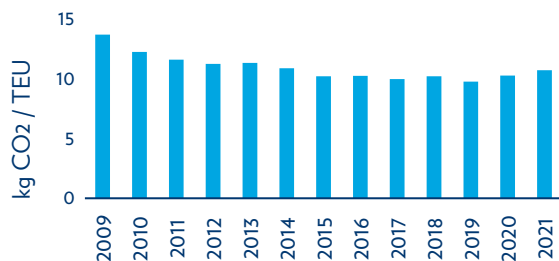
Electricity consumption per TEU
ECT Rotterdam (2009 = 100%)



4.3 CARBON FOOTPRINT

It is expected that the CO₂ emissions of ECT will be significantly lower from 2023; among other reasons, this is attributable to the commissioning of 77 hybrid AGVs and the switch to 100% wind-generated energy.

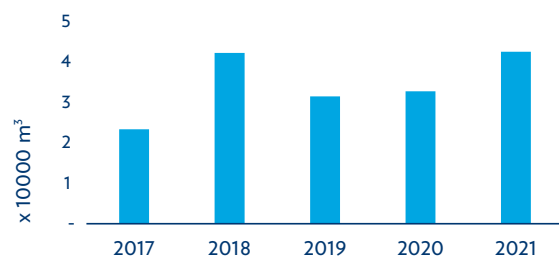
CO₂ per TEU
ECT Rotterdam



4.4 WATER

Water consumption within ECT is highly variable and depends on the works being performed at the terminal. Among other things, flushing the fire extinguishing water facilities several times, as per the stipulations in ECT's environmental permits, has a major impact on water consumption.

Water consumption
ECT Rotterdam (2017-2021) in m³



4.5 WASTE AND RECYCLING

ECT generates several waste flows, such as waste from sweeping, wood, metals, hazardous waste streams and residual waste.

After having been separated, the waste is delivered to the waste processor, which ensures that 35% of the total waste stream is recycled and can ultimately be used as a raw material or converted into (green) energy. Through various recycling methods, these waste streams account for 5,424 kg of avoided CO₂ emissions. Waste that cannot be recycled is categorised as waste in Figure 1. This waste is landfilled.

Waste processing
ECT Rotterdam 2021 (in %)

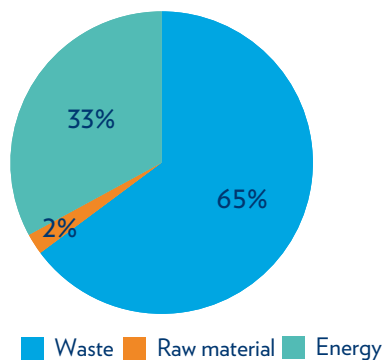


Figure 1 – Types of waste processing within ECT Rotterdam in 2021

Distribution of waste
ECT Rotterdam 2021

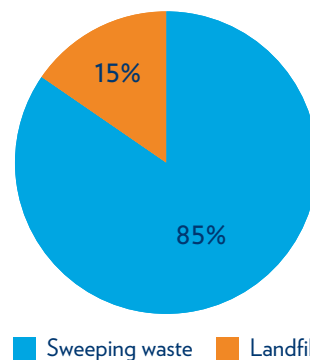


Figure 2 – Distribution of (landfill) waste within ECT Rotterdam in 2021

The vast majority (85%) of the waste comprises sweeping waste. How much depends on the weather conditions and works in the immediate vicinity of the terminals. This waste is currently not suitable for any form of recycling (waste flow is not certified by TNO, Netherlands Institute for Applied Scientific Research), which means that the percentage of landfill waste within ECT is relatively high.

A waste prevention study was performed by ECT in 2021 in which recommendations were offered to limit each waste flow or, if limitation was not possible, to process the waste flow in such a way that it could be recycled or reused. Based on this study and the sustainability objectives of ECT, a waste management plan including a waste guide will be drawn up in 2022.

5. FINALLY

This report is the first in a series. The intention is to report more extensive about ECT's sustainability activities. It is also the intention to include more data on the performance of ECT.