



Green Gothenburg Gateway





Henrik Kristensen, newly appointed Head of Global Operations at APM Terminals
Dennis Lenthe Olesen, newly appointed CEO of APM Terminals Nordics

We are now designing Green Gothenburg Gateway

One year ago, APM Terminals Gothenburg decided to accelerate the development of Sweden's goods transports, having identified the need for Sweden to keep pace as global goods transports grow in scale and become more efficient.

APM Terminals Gothenburg set the goal of no more than 48 hours for a container placed on a goods train somewhere in Sweden to be loaded onto a large ocean-going vessel in Gothenburg. Collecting a large amount of goods in Gothenburg will attract more ocean-going direct lines to the port, moving Sweden closer to world markets. This is the Gothenburg Gateway.

We are now taking the next step. With the Green Gothenburg Gateway concept, APM Terminals in Gothenburg will continue to move Sweden closer to world markets by delivering fast, efficient and reliable cargo handling. But we are also making our container handling fossil free, and transport of all customer goods through the terminal will already be fossil free by next year. We will also be able to offer our customers fully climate-neutral cargo handling through our terminal. Work with this has commenced and will be rigorously implemented. And with third-party review, customers who become partners will be able to qualify for certification.

Over the past year we have had many contacts with shippers in the business community. There is no doubt that their most important requirement is that transport solutions be competitive and reliable. But there is also growing interest in climate-neutral solutions.

APM Terminals is now responding to customer demand by making our efficient container handling fossil free. We are also doing this at no extra cost to the customer. This strengthens our contribution to the Swedish business sector's competitiveness and climate work.

The Gothenburg Gateway is becoming Green Gothenburg Gateway.

Green Gothenburg Gateway supports our customers' climate work

Gothenburg's container terminal is used by Sweden's largest exporting and importing firms. High standards for reducing climate impact are placed on these companies by customers and shareholders and, consequently, the companies have established rigorous climate targets and are working to reduce emissions that have not already been redressed. Meanwhile, they are operating in a highly competitive environment.

A clear signal from the Swedish business sector to APM Terminal Gothenburg is that climate impact needs to be reduced, but an equally clear signal is that this mustn't result in higher costs and decreased competitiveness. Customers want to benefit from APM Terminals' climate initiatives, but do not want to be compelled to pay for them.

We take this seriously!

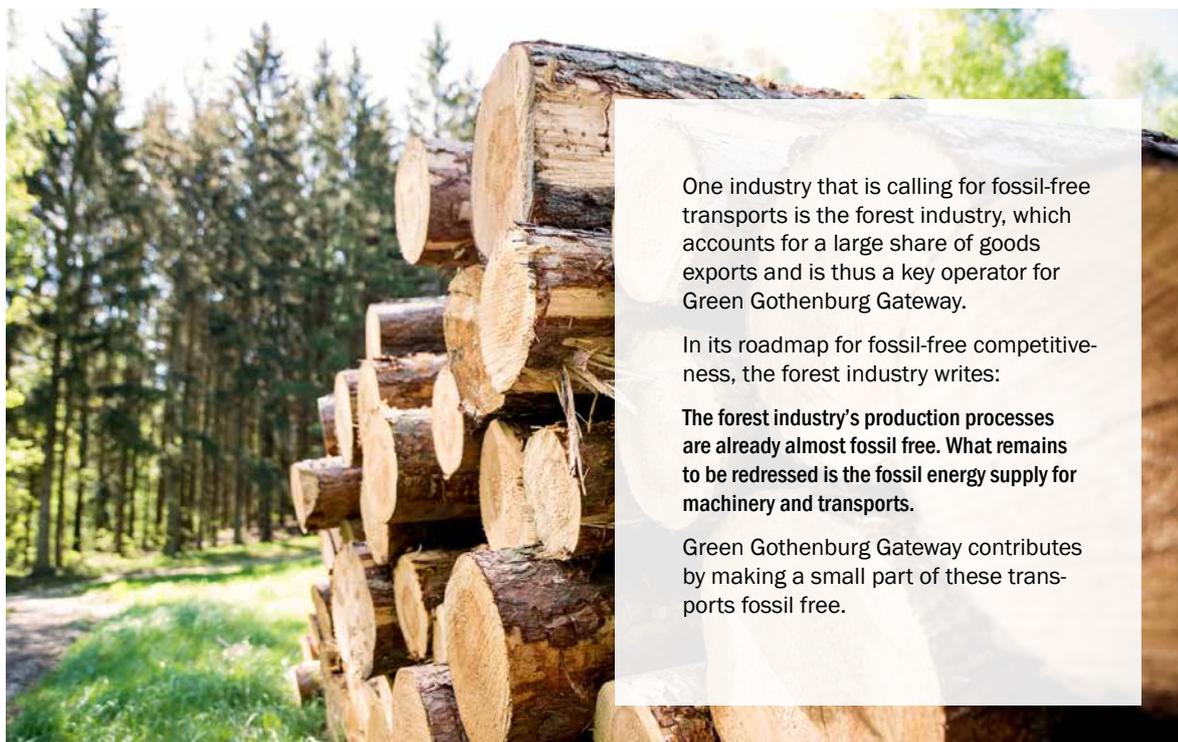
We are therefore converting to renewable energy, so that all customers have fossil-free transport through our terminal at no cost. Customers who participate in APM Terminals' zero-emissions container transport programme will also have a fully climate-neutral solution under which emissions reduction can be allocated to the

customer, who will receive certification for decreased amount of carbon dioxide emissions.

APM Terminals' customers take the climate issue seriously

More than 400 Swedish business sector operators have signed Fossil-Free Sweden's declaration that Sweden will be one of the world's first fossil-free welfare states. These signatory companies include many of APM Terminals' most important customers.

But a conversion of this magnitude requires co-operation. No one company can make the entire supply chain fossil free. Green Gothenburg Gateway is a key component in the supply chain.



One industry that is calling for fossil-free transports is the forest industry, which accounts for a large share of goods exports and is thus a key operator for Green Gothenburg Gateway.

In its roadmap for fossil-free competitiveness, the forest industry writes:

The forest industry's production processes are already almost fossil free. What remains to be redressed is the fossil energy supply for machinery and transports.

Green Gothenburg Gateway contributes by making a small part of these transports fossil free.



BillerudKorsnäs invests in types of transport that have low environmental impact. Fossil-free container handling makes the combination of rail and maritime transports even more climate-smart.

"We use solutions that are as climate efficient as possible. We try as much as possible to use rail and sea transport. Rail has the least environmental impact, so around 70% of our land transports from the mills are done by rail. Whenever possible – mostly domestically – we try to use HVO-powered car solutions."

Ivo Fronzaroli,
Head of Logistics at BillerudKorsnäs



Photo: BillerudKorsnäs



Clas Ohlson is an example of a company that has already made major climate progress by reorganising its transports. Green Gothenburg Gateway will be another key element here.

"Clas Ohlson is in a prime position, since we use one of the commuter rail lines that goes from the Port of Gothenburg all the way up to Insjön. We have used this system for several years, but we used to rely on lorries. We have redirected all of our transport flows – we basically don't drive a single truck from Gothenburg to Insjön."

Peter Bergestål,
Head of Transport at Clas Ohlson



Photo: Clas Ohlson

The container terminal in Gothenburg will be renewable

During 2020 APM Terminals Gothenburg will switch entirely to renewable energy. This will be another major step in the journey towards climate neutrality we have already initiated.

We are doing this not only to meet customer demand, but also as our major contribution to Sweden's ambitious climate target for the transport sector. The Swedish Parliament has decided that by 2030, greenhouse gas emissions from the country's domestic transports will be 70 per cent lower than 2010 levels.

Since taking over operation of the container terminal, APM Terminals has made investments and changes that have reduced the terminal's climate footprint.

Carbon dioxide emissions will be approximately 90 per cent lower than they were ten years ago, thanks to measures already implemented and the conversion to renewable fuels. Accordingly, by 2020 we will exceed by good measure Parliament's 70 per cent reduction target. But we will not settle for that – we will also help our customers become climate neutral.

Together, we will achieve Sweden's climate target.

APM Terminals Gothenburg is the Nordic region's largest container port and has an enormous amount of mechanical equipment. Everything needs to interact perfectly when ocean-going vessels, fully loaded goods trains and a steady stream of lorries need to be loaded and unloaded simultaneously. The switch to renewable energy must be done without affecting capacity or accessibility. This applies to equipment including the Super-Post Panamax cranes (among the largest in the world) and the terminal's 40 straddle carriers.

The energy conversion that has already been done, or that will be done during 2020:

- ✓ All container handling equipment run on HVO 100
- ✓ All cranes run on renewable electricity
- ✓ Renewable electricity for all gates and buildings
- ✓ Biogas used for heating



Digital tools and optimised terminal layout

Optimised processes to minimise energy use

Reduced motor idling



Next-generation machinery for handling containers, cutting fuel consumption by 50%

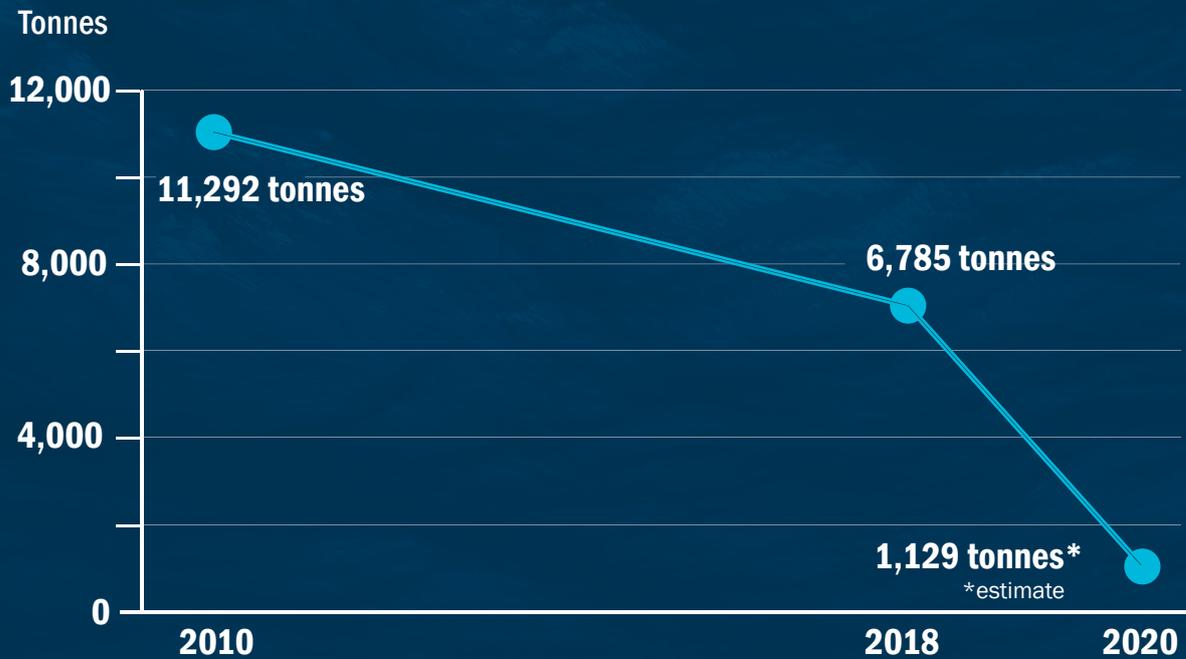
LED lighting at the terminal, in buildings and on cranes

Implemented measures that have reduced the climate footprint of container handling



Total CO₂ emissions APM Terminals Gothenburg

-90%



Increased capacity can reduce emissions

APM Terminals Gothenburg has increased the container terminal's capacity and set records in rapid loading and unloading. The fact is that high container capacity is key to reducing climate impact.

Vessels that can maintain normal speed minimise climate impact. The fast handling times at our terminal help liners keep to their timetables, without needing to run at extra high speeds and consume more fuel.

As a rule of thumb, a vessel that needs to travel 10 per cent faster to recoup lost time increases its fuel consumption (and hence its emissions) by 20 per cent.

APM Terminals in Gothenburg therefore ensures that vessels that arrive late still depart on time. The most recent survey showed that 22 per cent of vessels arrive later than scheduled; nevertheless, 97 per cent leave the terminal within – or earlier than – the stipulated time. This is possible thanks to the capacity-enhancing investments and changes made by APM Terminals.



ARRIVAL

22%

of the vessels arrive late



APM Terminals Gothenburg



DEPARTURE

97%

of the vessels leave on time

All customer container handling will be fossil free

With the conversion to renewable energy throughout the terminal, container handling for all of our customers will be fossil free. The conversion will be done at no cost to customers and will not affect the speed or reliability of cargo handling.

Along with our other measures, the transition to renewable energy eliminates most of our climate impact. But additional efforts are required to achieve our goal of climate neutrality, given that the renewable fuel we will be using does have a climate impact if the entire cradle-to-grave production chain is taken into account.



We also offer our customers fully climate-neutral container handling

We are proud to be able to offer all customers fossil-free container handling, but we are not satisfied with that. In 2020 APM Terminals Gothenburg will offer customer fully climate-neutral container handling throughout the entire Gothenburg terminal.

Customers who want climate-neutral container handling will be offered the option of participating in APM Terminals' Low Carbon Logistics programme. Residual carbon dioxide emissions will be eliminated through measures taken through the programme, which will be implemented in APM Terminals' operations.

Fully climate-neutral container handling, which covers customers who participate in APM Terminals' programme, will be included in the price for customers who place a certain amount of transport volume with APM Terminals Gothenburg.

APM Terminals wants to meet the increased demand for climate-efficient transports in a way that gives something back to the customer. Our Low Carbon Logistics programme will therefore be verified by third-party reviewer PwC and, accordingly, customers will receive certification for the emissions reductions that are allocated to them.

APM Terminal Gothenburg's climate-neutral solution:

- The container terminal in Gothenburg converts completely to fossil-free energy. All customer container handling is therefore fossil free.
- The conversion to renewable energy eliminates a large part of the carbon emissions that have not already been eliminated through other measures.
- Customers can achieve climate-neutral container handling through APM Terminals' Low Carbon Logistics programme.
- Customers who choose climate-neutral container handling receive certification for amount of carbon reduction.

APM Terminals' Low Carbon Logistics programme is founded on our investment in solar energy at our terminals in places where we cannot procure renewable electricity. We are consequently replacing fossil energy with solar energy from our facilities throughout the world.

What does our zero-emissions programme involve?

APM Terminals' Low Carbon Logistics programme is a way to reduce carbon dioxide emissions by investing in our own supply chain. Our zero-emissions programme therefore differs from climate compensation, where investments are made outside of a company's processing chain. The advantage of our zero-emissions programme is that we not only reduce carbon dioxide emissions, but also help convert our own operations in the long term.

Our zero-emissions container transport programme goes further than merely purchasing climate compensation. It means that we as a company are investing in our supply chain – i.e. the supply chain that our customers are a part of. This also supports the communities surrounding our supply chain.

APM Terminals' zero-emissions programme is based on:

- Our procurement of 100 per cent renewable electricity at the terminals where this is possible
- Our investment in solar energy production at places where we cannot procure renewable electricity

Because we have many terminals throughout the world, we have many excellent locations for producing solar energy. We can manage our investments in solar energy to provide the greatest possible climate benefit in the form of reduced local purchases of fossil energy.

In many places, such as Gothenburg, we purchase renewable electricity rather than producing our own solar energy. In these cases, we can offset our remaining climate impact from various parts of our business operations against emissions reductions stemming from our generation of solar energy.

External review

All emissions data from the Maersk Group (to which APM Terminals belongs) is reviewed annually by PwC, an independent third-party reviewer. This review will also cover APM Terminals' Low Carbon Emissions programme.

The external review verifies the part played by each customer in APM Terminals' climate measures. We will therefore be able to offer certification to customers participating in our Low Carbon Emissions programme, to enable these customers to achieve climate-neutral container handling. Our climate initiatives can therefore be translated into measurable value for our customers.

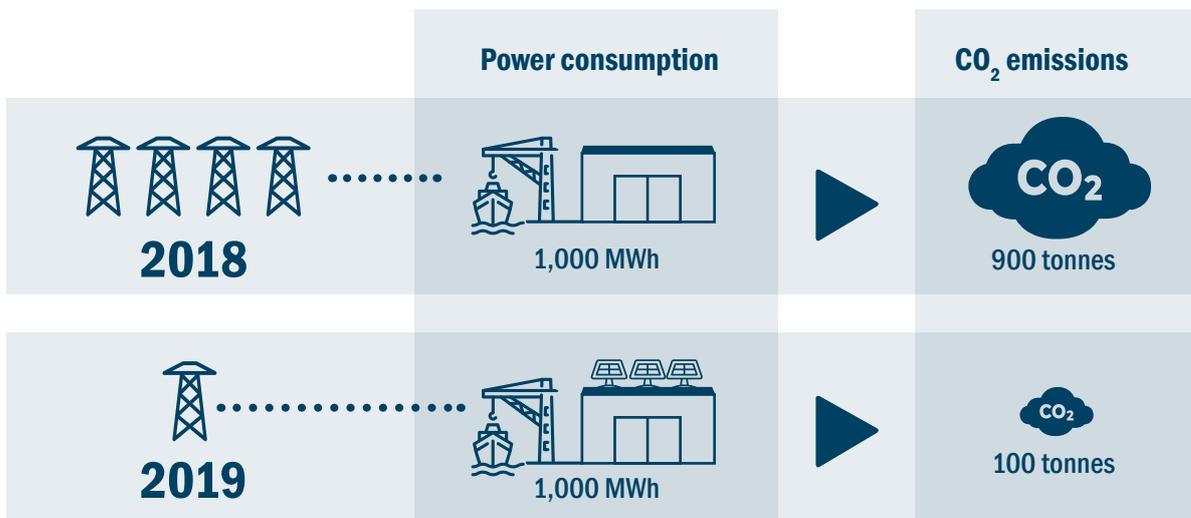
For customers, this signifies an externally verified Scope 3 emissions reduction pursuant to the Greenhouse Gas Protocol standard (i.e. indirect emissions along the value chain).



APM Terminals' Low Carbon Logistics programme differs from traditional climate compensation because the climate footprint reduction measures are implemented in our own supply chain.



With the conversion to renewable energy, APM Terminals' climate footprint in Gothenburg will be reduced approximately 90 per cent as compared with its footprint ten years ago. This corresponds to 10,000 tonnes in annual carbon dioxide emissions reductions, the same amount as that emitted in one week by residents of a mid-sized Swedish city with a population of around 50,000¹.



By investing in solar energy, we can reduce emissions in places where we are unable to purchase renewable electricity

¹Carbon dioxide emissions 10 tonnes per person and year (Source: Swedish Environmental Protection Agency). 50,000 residents/52 weeks

The most cost-effective concept is now even more climate smart

Because APM Terminals Gothenburg has a large proportion of goods transport by rail, volumes can be increased by stepping up the share of rail transports. Goods trains and ocean-going container vessels are an unbeatable combination from a climate perspective.

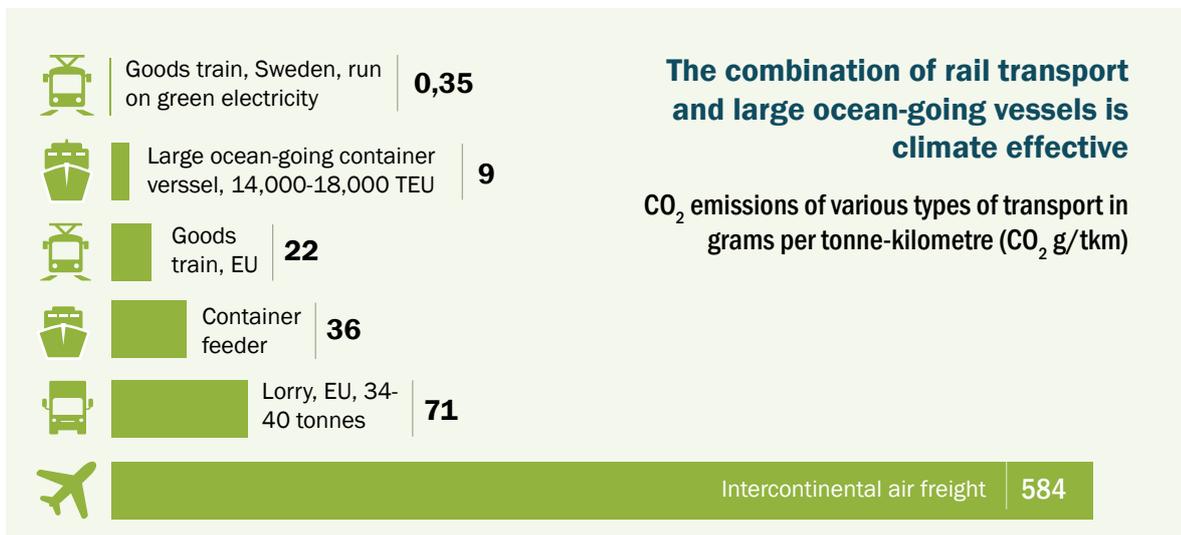
Climate impact can be reduced by transporting goods directly to the Port of Gothenburg, as opposed to using transports involving multiple trans-shipments. This is due to the fact that road transports and transports that use small feeder vessels are not as efficient as goods trains and large vessels.

Example



Major environmental benefits can be gained by shipping via Gothenburg with main liner (even if loaded at only 50%) as compared with road transport from Insjön to Gävle and onward with a (nearly full) feeder vessel via Rotterdam to Shanghai.

Source: APM Terminals Global Sustainability Team



Climate impact of various types of transport. Source: www.transportmeasures.org.

APM TERMINALS

Our global goal: zero carbon dioxide emissions by 2050

The greatest change to the global sustainability agenda in the past decade has been the growing need to combat climate change. The available scientific evidence leaves no doubt that the entire world needs to free itself from dependence on fossil fuels. This also applies to ports and shipping. APT Terminals and the entire Maersk Group are therefore taking determined steps to make all operations fossil free.

Maersk has set the goal of zero net carbon dioxide emissions by 2050 across its entire global operations. Of course, we expect to be able to achieve this prior to 2050 in many places. But our ambitious goal can only be achieved with the strong co-operation of other key operators, leading to the innovations and technological development required for success.



APM Terminals' zero-emissions work is part of the Maersk Group's goal of making all business operations climate neutral by 2050.



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