

Setting sail for carbon neutrality in 2040



Foreword

Climate change is a monumental challenge. It is clear that without action in the near term, the impact of humans on our planet will lead to irreversible shifts to ecosystems, cities, and our way of life.

We all have to do our part to avoid warming the planet and that also includes Svitzer. As the world's largest towage provider, we recognise that we have an important role to play and a position to influence industry standards.

Towage plays a small yet significant role in the global supply chain. We link the first and last mile of shipping to the remainder of the chain but, paradoxically, are not always bound by shipping regulations. This is particularly true on the environment, where we find ourselves having to create our own momentum for sustainability change.

We recently unveiled Svitzer's new decarbonisation strategy to become fully carbon neutral by 2040. This is an ambitious goal, far outstripping the current IMO target of a 50% reduction in emissions by 2050. We are dedicated to investing time and capital to embed sustainability throughout our business.

The work has already begun to progress towards the first phase of the strategy, which is to reduce the CO2 intensity of the entire Svitzer fleet by 50% by 2030.

In this paper, we will outline how we intend to reach these goals and dive into some of the tangible progress we have already made. We will talk about the key pillars of our strategy and think about next steps on the road to the future. You will hear more from Gareth Prowse, Svitzer's Head of Decarbonisation, on the scale of the task and the challenges of decarbonising our fleet and operations.

We fully recognise that this isn't something that we can do alone. Decarbonising towage – let alone all of shipping – will require new partnerships so we are actively looking for new partners to co-create the road to success. We want to partner not just on the things we know and, in the sector, we occupy, but to draw on learnings from other industries that are experiencing the same transition. We are ready to be challenged and to rapidly innovate as we scale up our quest for sustainable towage and greener ports.

On a personal note, announcing the 2040-goal and taking actions every day that take us closer to achieving the target is very satisfying on a professional level. I am excited to lead all of the team here at Svitzer as we evolve our business around environmental considerations whilst also continuing to deliver the safe and high standard of service that we are known for.

I will state it again: we all have to do our part. I hope that through these pages you will feel the passion that the Svitzer team has for our decarbonisation ambitions, and I hope you share our desire for a sustainable towage industry and greener ports.



Kasper Nilaus, Chief Executive Officer, Svitzer

Strategy

Towage is unique and distinct from shipping as a whole. While it shares many of the challenges inherent to enabling sustainability in the marine supply chain, the specifics of how we operate, the different groups that we must work with, and the different regulations that we fall under, makes the task of articulating a clear and visionary strategy for decarbonisation difficult, but not impossible.

There are many reasons for us to act now. The urgency to act sustainably and for sustainability to permeate across the whole supply chain is very apparent. But critically, our customers are increasingly asking for sustainable towage options as well.

As many customers begin to change their fleets, such as by installing clean technology or moving to new, low carbon fuels, they are also rightly looking at their partners and suppliers to help them manage the transition.

This reflects the trends we are seeing across the industry of more transparency and sustainability in the supply chain. After all, our 'Scope 1' emissions are someone else's 'Scope 3' emissions, and our industry will increasingly be influenced by what the 'customer's customer cares about and values.

To provide a sense of scale for the challenge ahead, Svitzer's global fleet of 400 tugs emits the same every year as 100,000 diesel-powered cars, or around 280,000 tonnes of CO₂. That's a big number, and we need to act now if we are to do our part in helping keep the planet below the 1.5-degree target outlined in the Paris Agreement.

It's also important to put these emissions totals in context with the wider industry challenge. Despite tugboats being small, the global fleet emitted around 41 million tonnes of CO₂ in 2018¹. Despite this, the environmental impact of our sector is out of scope of the IMO's environmental regulations, placing the responsibility of operators within the sector to seek out solutions to reduce these emissions. A responsibility that Svitzer accepts.

As laid out recently, our strategy has two targets. First, we are aiming to reduce the CO₂ footprint of our fleet by 50% by 2030, whilst developing concrete plans and rolling out initiatives to deliver fully carbon neutral operations just ten years' later in 2040.

We want to be a low carbon partner to our customers, contributing positively to their environmental footprint while also actively reducing our own.

¹ According to the IMO's Fourth GHG Study

No shortcuts

There are the unique factors associated with towage, specifically, tugs, that make decarbonisation even more challenging. This initial fleet focus makes sense because this is where much of the positive impact can be generated but the size and complexity of Svitzer's fleet, plus its globally distributed nature, may make some elements of decarbonisation more challenging than much larger vessels.

Right now, there are no 'silver bullets' that we can use technically, so it's critical that we explore a range of options.

One question that we immediately examined was the ability to 'build our way to zero', if such a thing as a zero-emissions tug existed on the market today. Svitzer currently builds around ten tugs per year as part of continual fleet renewal. That means 180 vessels by 2040 – but that's less than half our global total, and a long way from having a carbon free fleet. Besides that, there's an inherent carbon cost in the vessels we have on the water now. From a total cost of ownership perspective, scrapping or selling a 'young' vessel for a 'zero-emission' emissions replacement isn't necessarily the right thing to do.

That means there are no shortcuts we can take. The onus instead lies on us being able to use what we have today and bring zero emissions vessels online when they are available. Knowledge and being able to identify the right path are essential here, which is why data has become such an important part of our strategy.

Over the past few years, Svitzer has been investing heavily to standardise how we collect, store and, crucially, analyse data, helping us maximise the impact we have by identifying key areas for us to drive change across our fleet and beyond. Putting data at the heart of our decision-making in this way has not only enabled us to set our targets, but also to define three key focus areas: behaviour, equipment, and fuel.

By focusing on these three areas, we'll be able to make changes that have immediate impact whilst also developing solutions that can drive further reductions in the future.



Behaviour

We say it all the time, but it really is true that people are at the heart of everything Svitzer does. And because it is ultimately our experts and dedicated staff that enable our day-to-day operations, small changes in behaviour can have a surprisingly large impact.

For example, we have already learned that we can lower fuel consumption by asking our crews to make small behavioural changes when they mobilise to and from a job. Based on data we've gathered from across our fleet, we've been able to roll out an internal awareness campaign called 'Aim for 8', which prompts masters to reduce their speed to 8 knots when mobilising and demobilising to a job. Our pilot of this initiative in the UK has already achieved a 1000 tonne reduction in CO2 emission since we started in the last months of 2021.

We're exploring other behavioural changes as well. For example, by intelligently operating our hybrid tugs, and by working closely with the port and pilots, we have been able to achieve substantial fuel efficiencies compared to normal operations. In one test, our tug the Telstar was able to reduce its fuel burn by 50% by fully exploiting its electrified capabilities. Meanwhile, altering the schedule for refuelling of our Peru-based tugs dramatically reduced our emissions, and saved money for the client.

Interview with Kasper Nilaus, Chief Executive Officer, Svitzer

How important is decarbonisation to you personally?

Decarbonisation and climate change are the defining challenges of our age. When I think about the future that my daughters will inherit, I feel especially motivated to try to make as much of a difference as I can in my work. I'm proud of the progress that our team at Svitzer has made so far and it's clear we all share a passion to evolve the way we operate.

Why is Svitzer launching this strategy now?

The need to act on sustainability is absolutely clear. We're launching this strategy now simply because we need to! The right combination of existing and in-development technology and fuels makes our vision possible if we place focus in the correct areas, but we need to start today.

Equipment

Whilst behavioural changes can generate immediate progress towards our strategy, we're also focused on ensuring that our current fleet and new vessels are as efficient as possible and, ultimately, are designed to be 'fit for the future'.

We've already made good progress. Our pioneering TRAnverse tug design, created in collaboration with Robert Allan, will fundamentally change how we provide towage, driving efficiency and reducing emissions during the carbon-intensive working phase of our operations.

Meanwhile, for our traditional tug designs, we recently worked with Schottel to create a SYdrive gearbox which enables mechanical hybrid operations, maximising the power delivered from engines onboard. Both of these innovations will return significant savings in fuel consumption using existing, tried and tested technologies – maximising the benefits whilst minimising the risks associated with adopting novel equipment.

Finally, and perhaps most importantly, we are currently in the design phase for a hybrid tug using a methanol fuel cell in combination with batteries and methanol fuelled engines.

This approach allows us to explore new technology whilst establishing 'design rules' to ensure that as we renew our fleet, the vessels we put on the water tomorrow are as efficient as possible and ready for the future.

As a final note, in general, the equipment front is where collaboration will be most impactful. Partnerships will be important to pioneering and scaling the towage technologies of tomorrow, and we're excited to see where collaboration will take us next. We want to directly invite interested organisations to work with us. No ideas and no avenues are off the table, including looking beyond maritime to the learnings we can draw from other sectors.



Fuel

The importance of debating fuel in relation to the maritime decarbonisation is well understood. That's why our strategy is primarily focused on two key areas: planning for developments in the future and being ready for when they arrive whilst utilising the fuels that are currently available on the market.

Methanol, hydrogen, and ammonia all hold great promise as future marine fuels. But all of these solutions require developments in infrastructure, production and, importantly, the standards governing their safe supply before they will be suited to towage.

Biofuels hold great promise for towage, and they underpin our already successful EcoTow programme, where we can support the decarbonisation of our customers' operations by driving change within our own fleet. The success of our EcoTow project in the UK has proven the viability of low carbon biofuels and we will replicate the scheme more widely across global operations.

EcoTow in focus

All about EcoTow, Svitzer's carbon neutral towage option

EcoTow began in 2021, and it is Svitzer's answer to carbon neutral towage. Replacing marine gas oil with the carbon neutral biofuel enables Svitzer to offer a new towage solution to our customers, unlocking 100% CO₂ reduction in Scope 3 emissions from their towage operations.

We can provide EcoTow either directly in ports with tugs running on biofuel or give our customers the opportunity to inset fossil-fuelled towage through our global network. We can calculate the emissions impact of a customer's towage operations and match this impact with the volume of biofuel to be delivered to one of the biofuel-powered UK fleets.

Due to the success of EcoTow, we have now switched our entire fleets in London, Felixstowe, and Southampton to low carbon biofuels. We'll continue to roll out the project more widely across UK, European and global operations. EcoTow has confirmed for Svitzer and the wider towage sector that using biofuel to power tugs not only holds environmental value but is also operationally and commercially viable.

What's next?

The next steps are going to come up rapidly, particularly if we are to meet the ambitious goals, we have laid out for ourselves.

- Our priorities for now lie in several key areas. First, our core mantra remains on strengthening what we already have, and we want to unlock the potential efficiency gains latent within our existing fleet.
- We will maximise the data insights we are gathering to ensure we are moving towards our goals and that we can credibly demonstrate progress.
- We will also focus on the research, development, innovation, and collaboration needed to create the fleet of the future – and, critically, that these vessels are future fuel ready.
- We will also continue to put customers at the heart of what we do and we are committed to driving down their Scope 3 emissions through reducing our own Scope 1 emissions.
- Finally, it bears repeating how important partnerships will be to achieving our decarbonisation goals and ultimately help ports turn greener. We want to do right by that ecosystem as much as we do right by the planet, so we'll work closely with the right partners to help us make our goals a reality.

Interview with Gareth Prowse, Head of Decarbonisation, Svitzer

How hard is it going to be for Svitzer to decarbonise?

Clearly, decarbonising a diverse fleet of more than 400 vessels isn't going to be easy. Add on top our shore-based operations and we're looking at a multifaceted challenge that requires us to act across all areas of our business to decarbonise. But we shouldn't be daunted by the challenge ahead – our targets are achievable and we're confident that we'll be able to meet our goals.

How has your career experience helped you set this strategy?

I'm lucky to have worked in some exciting and challenging roles within the maritime value chain. Those roles have given me a broad perspective in terms of setting achievable strategies and the role that solutions like technology can play. We need to be ambitious and have a beacon to head towards, but we also have to have a clear pathway to drive engagement and define concrete actions. I've called on all of my experience working cross functionally in the past to help the team here at Svitzer to make sure this decarbonisation strategy gives us both.

Taking a lead for the industry

Two
ambitious
goals



50%
REDUCTION IN CO²
INTENSITY OF
OUR FLEET BY
2030



FULLY
CARBON NEUTRAL
OPERATIONS BY
2040

SVITZER