



South East Water
pledges to reduce
carbon emissions
by 45 per cent
by 2025.



Background

It's widely acknowledged that water resources are being compromised by climate change.

Globally we're witnessing reduced rainfall, more extreme droughts, floods and heatwaves and rising sea levels. Locally, it's expected that climate change will mean Victoria becomes drier over the long-term.

All of this impacts on the security of our water supply and the operational viability of water infrastructure.

At South East Water, our customers and community rely on us to not only provide safe water 24/7 (and responsibly remove and treat wastewater), but to make a positive impact on the environment in which we operate.

We want to assure them that we are.

In line with our *Corporate Plan 2017–22* and the State Government of Victoria's sector-wide *Water for Victoria* plan, this includes taking active measures to mitigate the impacts of climate change.

Our pledge

As a corporation that prides itself on being prepared for whatever the future brings, we're excited to present our Emissions Reduction Pledge and be part of an industry-wide commitment to address this important issue.

Short term, South East Water's Emissions Reduction Pledge represents our formal commitment to reduce our carbon emissions by 18,729 tCO₂-e (45 per cent) by 2025 relative to our baseline.

Longer term, this commitment supports our overall goal of **achieving net zero emissions by 2030.**

Our pledge predominantly focuses on reducing Scope 2 emissions, which equates to approximately 75 per cent of our total emissions profile. The remaining 25 per cent (Scope 1 emissions) will be managed post 2025 and this is expected to be primarily via offsets.

As an essential services provider, we understand our corporate obligation to minimise carbon emissions, and therefore our contribution to climate change, as well as the need to plan for and implement adaptation measures. We also recognise that actions need to be undertaken with consideration of the cost impact on customers and their bills.

This pledge demonstrates to our customers, community, employees and stakeholders (including contractors, suppliers, regulatory bodies and all levels of government) that we are committed to developing and implementing innovative solutions to address this issue. It is a priority for our corporation.

The path so far

This pledge is an exciting step forward in addressing an important global issue. However, we have always been (and remain committed to) protecting the environment in which we operate now and for the future. This is why we've been exploring and implementing emission reduction initiatives for some time, driven by our awareness of the issue and our corporate responsibility to provide solutions.

Here's what we've done to reduce emissions so far:

- Stressed in our *Annual Report 2015-16* and *Corporate Plan 2016–21* (which lead action across the business) that to tackle climate change we must reduce emissions and plan for climate change adaptation. (Mitigation reduces carbon emissions from our own operations, while adaptation manages risks arising from the impacts of climate change.)
- Combined both practical and innovative approaches to reducing emissions, such as investing in new and innovative technology when the costs and the benefits are aligned, and where we can see real advantages for our business and our customers. One such example is a solar power pressure sewer system at a community sports ground in Tootgarook.
- Trialled the viability and opportunities on offer through renewable power and battery storage technology. We recently installed a 99 kW rooftop solar panel at our Frankston headquarters and we're also trialling solar power at two water pump stations (one of which also has battery storage).



- Took the lead to become one of the first water corporations to install a mini hydro at one of our facilities. We're a business that constantly tries new things and looks for better approaches.
- Designed our new Frankston headquarters as a 'smart workplace' in terms of energy efficiency. This includes motion detecting lighting, increased use of natural light, predictive heating and cooling systems, and solar hot water.
- Invested in more efficient pumps throughout our sewer and water systems.
- Upgraded to LED lighting across many of our assets, including our water recycling plants, workshops and offices.
- Continuously updated the way we run our assets so that they are more efficient, based on modelling from our telemetry data.
- Scouted opportunities to increase the efficiencies of our business' processes, systems and maintenance protocols to reduce power consumption and enhance the sustainability of our assets.

Our road to the future

We recognise that globally there must be more focus on reducing carbon emissions. Our customers and the community demand this. We demand this from ourselves as a business that wants to create a better world. Inaction risks alienating customers, further environmental degradation and ultimately could impact the sustainability of our business model.

Our pledge to reduce carbon emissions will be directed to a number of key areas.

1. Renewable energy

We will continue our focus on renewable energy, including solar generation at sites that use significant energy, such as water recycling plants. In addition to the three solar systems already installed, another four are being planned. The next, at our water recycling plants at Somers and Pakenham, are expected to be completed during 2017-18. We expect to follow this with solar system installations at our water recycling plants at Mt Martha and Blind Bight. The systems have been designed with optimal return on investment and provisions for future expansion.

2. Battery storage

As the cost of battery storage decreases, we plan to progressively increase the size of solar installations and invest in battery storage technology to further increase our self-sufficiency in electricity generation. We already have one pilot battery storage project running and continue to investigate economically viable large-scale project opportunities to supply our operations in the coming years.

3. Biogas

We plan to investigate technology to capture biogas emissions and are planning to build a co-generation system at our Boneo Water Recycling Plant to utilise those emissions and turn them into energy. Our Mt Martha Water Recycling Plant will be investigated for the viability of co-generation.

4. Collaboration and engagement

i. Stakeholder collaboration will play a key role in our strategy. This includes working with other water utilities as part of the Intelligent Water Networks' Largescale Renewables Project, which is investigating the potential of a bulk energy provision that will lead to investment in a large-scale renewable generation project to serve the water industry. A 20 per cent portion of this South East Water pledge relies on the success of this project, including a second stage. If the implementation is unsuccessful, alternative group buying arrangements will be investigated, with the final option resulting in purchasing green power from the grid.

ii. Customer engagement will be key to our success. It is essential that we understand how customers may be impacted by our emissions reduction activities and that we also consider what customers, and the community more broadly, expect of us. We have already started this program by providing information around our emissions reduction plan, including the benefits of renewable energy. Customers have told us they support us cutting our carbon emissions and being net carbon neutral by 2030. We will continue to be open and transparent around the strategic opportunities, the implications of these and any associated costs.



While our customers understand that water and sewerage services come at a cost, it is vital to ensure that any emission reduction strategies and innovative approaches are implemented responsibly and with customer support. We will seek out solutions that use emerging technologies and select the most economically viable activities from both a business perspective and to ensure these solutions have a minimum financial impact on our customers.

As well as informing customers about our activities, it is hoped that other customer-focused initiatives within our business (such as education around water efficiency) also leads to greater energy efficiencies and a reduction in associated emissions.

5. Identifying new operational efficiencies

We will seek to identify new efficiency opportunities within our existing operations. Our water recycling plants consume significant amounts of energy and we aim to optimise maintenance and process improvement activities to reduce energy use and associated emissions via the installation of electricity sub metering throughout our plants. We will progressively reduce the emissions intensity of our vehicle fleet and are also exploring transitioning our motor vehicle fleet to electric vehicles.

6. Ensuring that emissions reduction is considered during all planning and building

We understand the importance of emissions being understood from a total business perspective. So we're implementing processes to reduce emissions in all new project approvals, and for low emissions solutions to be evaluated and implemented where commercially viable.

7. Offsets

While this pledge focuses on reducing Scope 2 emissions predominately through renewable energy and efficiencies, it is likely that Scope 1 emissions will be addressed by purchasing offsets created in Victoria post 2025. This will be a last priority as we consider offsets a less tangible response to climate mitigation compared with reducing energy consumption or renewable generation. However, offsets do provide an opportunity to support the community in other ways including through local investment and job creation.



Summary

Climate change has the potential to impact our business (and that of all Victorian water corporations) and our ability as a sector to provide water and water services.

This pledge to reduce South East Water's carbon emissions is driven by an acknowledgment of our unique role and responsibility to our customers, community and stakeholders, all of whom demand a safe and reliable water supply and a long-term approach to securing this supply into the future.

To mitigate the impact of climate change on customers and the environment, as well as disruption to our business model, we must minimise our own contribution to the issue through innovative and responsible emissions reduction strategies. This is our pledge.