



WATER SERVICES
ASSOCIATION OF AUSTRALIA

CLIMATE CHANGE - ACCELERATING TO NET ZERO

OCTOBER 2022



Purpose of this document

Climate Change – Accelerating to Net Zero is a 'how to' guide to help water businesses achieve their net zero carbon emissions targets. This document was produced through the oversight of the WSAA Utility Excellence Committee and the assistance of the WSAA Members.

Introduction

WSAA Utility Excellence Committee, with assistance from WSAA members, has produced this guide of tangible and cost-effective options for getting to net zero carbon emissions. It guides organisations logically through five maturity stages:

1. Organisational context and carbon footprint
2. Set commitments, develop roadmap and integrate into business plans
3. Easy wins and capability building
4. Maturity and longer-term initiatives
5. Expanding business boundaries

At each maturity stage the document covers actions across the areas of

- Governance,
- Organisational Capability,
- Sector and Ecosystem.

The structure is designed to show that getting started involves clear steps. Each area is supplemented by links to case studies that elaborate on key initiatives to help with implementation. The experience from the case studies and those who have helped pull this document together is that moving to net zero getting not only can start with simple steps but can also support organisations to reduce costs and manage risk. Note that each item in the guide is a suggestion only, and it is not necessary to implement every item in each step before progressing to the next. Rather the document is designed as a menu of options to select from that would help your organisation achieve net zero carbon emissions and beyond.

This summary guide is aimed at Boards, Governing Bodies, Executives and Senior Managers.

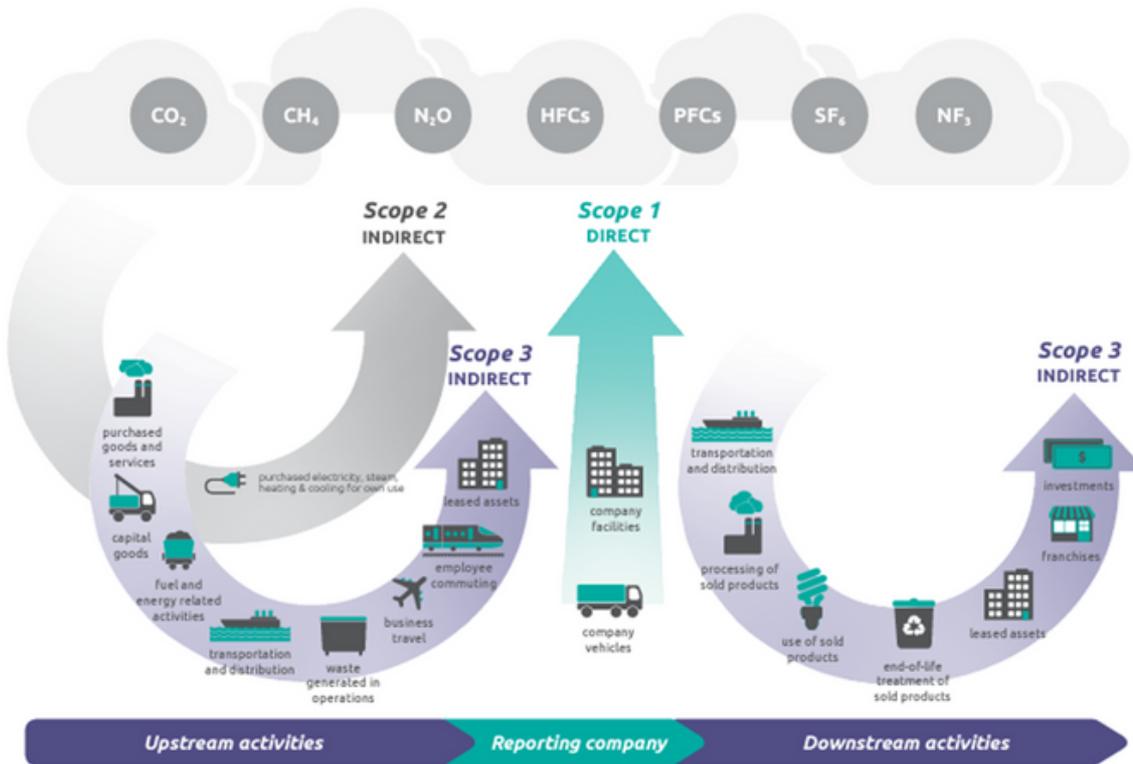
What does net zero mean?

The term 'net zero' emissions is defined by the Climate Council of Australia as 'achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere'[i]. Think of it like a set of scales: producing greenhouse gas emissions tips the scales, and we want to get those scales back into balance, which means no more greenhouse gas can be added to the atmosphere in any given year than is taken out. Achieving net zero carbon emissions is done by reducing emissions where possible and compensating for the remainder by investing in carbon offset projects to achieve net zero overall emissions.

Categories of emissions

Understanding that emissions are defined as being a particular 'Scope' based on how they are produced, as shown in the diagram below, is an important foundation for getting to net zero emissions. Examples of each emissions type can be found in the WSAA Towards Resilience paper.

Figure [1] Overview of GHG Protocol scopes and emissions across the value chain

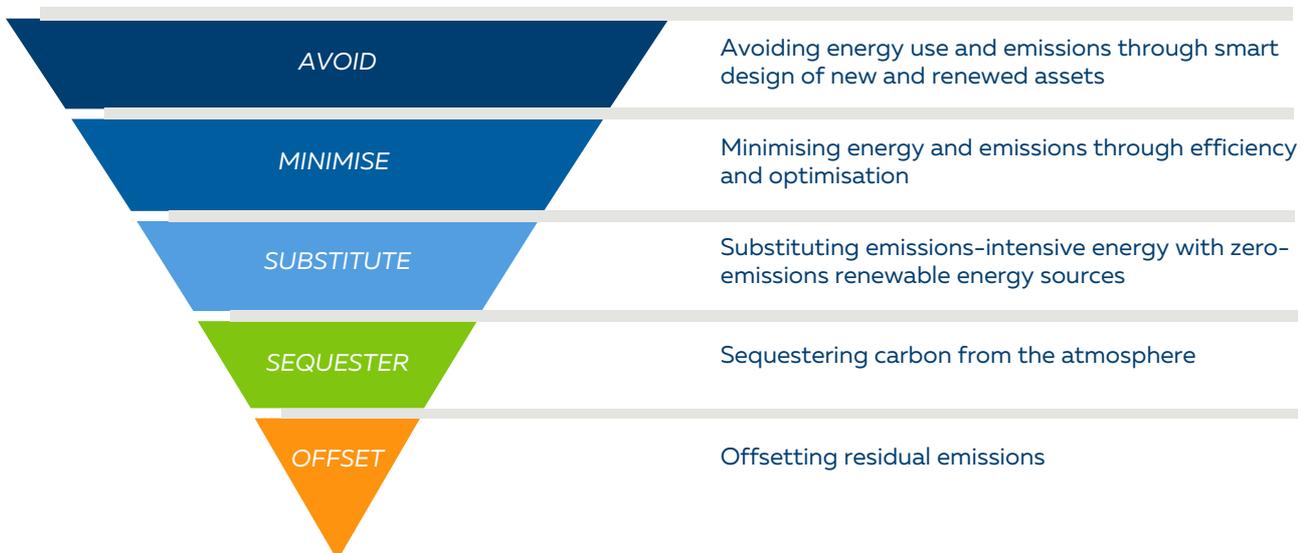


Source: Figure 1.1 of Scope 3 Standard.

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The Emissions Reduction Hierarchy

Also important is the carbon emissions hierarchy which suggests a priority order for the implementation of actions to achieve a net zero goal. Because every business is unique, a multi-pronged approach is recommended.





Key principles for accelerating to net zero

When looking at implementing carbon reduction schemes a three-step process should be considered^[ii]:

1. Achieving genuine, cost-efficient emissions reductions in line with any regulatory and Statement of Obligations requirements. This includes considering the need for carbon reduction against the timing for replacement of infrastructure or large-scale changes in business practices. It needs to consider the impacts in cost changes over time for different aspects of the waste hierarchy.
2. Reflecting customer needs and values in decision making for project type, location and price. This includes consideration of community values in terms of co-benefits such as biodiversity outcomes, local jobs and investment).
3. Demonstrating accountability and compliance with stated requirements. Assessing carbon neutrality should be based on best practice carbon accounting principles, a starting point for looking at these is outlined in the Australian Government Carbon Active Carbon Neutral Standard (CACNS), along with GHG Protocol – Corporate Standard (BCSD and WRI, 2004) and international standards AS ISO 14064 and ISO 14040 Series. Considering that the measures should be:
 - a. Relevant – appropriately reflects emissions for decision makers internal and external
 - b. Complete – disclosing all emissions and exclusions
 - c. Consistent – to allow meaningful comparisons over time
 - d. Transparent – clear, coherent and auditable assumptions, methods and data sources
 - e. Accurate – minimising bias and uncertainty, using conservative values where uncertainty is high.

Where offsets are used then these should be consistent with both the emissions reduction hierarchy and relevant integrity principles to ensure genuine and credible emissions reduction. For example, Australian Carbon Credit Units (ACCUs) as set out in the Carbon Credits (Carbon Farming Initiative) Act 2011. Offsets should only be used for residual, hard-to-abate emissions, rather than for things like electricity use (Scope 2) emissions. They are a last resort to get to net zero.

In the 'how to' guide, the following symbols are used to delineate where each recommendation fits with the carbon emissions hierarchy:


Avoid


Minimise


Substitute


Sequester


Offset

Direct References in Document

- [i] Climate Council of Australia (2020) <https://www.climatecouncil.org.au/resources/what-does-net-zero-emissions-mean/>, viewed on 9/9/22
- [ii] VicWater, Carbon Offsets: Report for the Victorian Water Industry (2020), <https://vicwater.org.au/wp-content/uploads/2020/10/Carbon-Offsets-Report-2020.pdf>, viewed on 29/09/22

Accelerating to Net Zero – summary overview

Development Plan Stage

Stage 1: Organisational context and carbon footprint

Stage 2: Set commitments, develop roadmap and integrate into business plans

Stage 3: Easy wins and capability building

Stage 4: Maturity, long term initiatives

Stage 5: Expanding business boundaries

Governance, including alignment with other strategies

- Obligations and other drivers understood
- Establish a measurement system, ideally supported by digital technology
- Incorporate program governance into enterprise portfolio management office (where EPMO exists)
- Incorporate reporting into Corporate Scorecard
- Understand your organisational context and look at what will make the most difference in getting to net zero.

- Board or governing body and leaders championing change
- Net zero roadmap endorsed by Board or Governing Body
 - Understand initial areas to reduce emissions
 - High level ambitions set
 - Program governance and reporting in place
 - Baseline set with initial realistic goals
 - Build business cases and options
- Commence long-term planning
- Articulate ambition in corporate strategies and reports

- Net Zero roadmap informs capital investment and aligns with price period planning
- Actions to achieve quick wins underway
- Refer to Net Zero roadmap in corporate strategies and reports

- Emissions accounting embedded in business decisions
- External reporting at a national and international level
- Roadmap includes contingency approaches for future regulatory changes

- Regular reviews by the Board and Executive
- Emission hierarchy is embedded in asset planning and management
- Align with community and commercial partner aspirations

Organisational Capability

- Build organisational (all staff) awareness and understanding of obligations
- Identify resource requirements
- Track current emissions and costs
- Carbon price awareness

- Engagement of all staff in development of emissions reduction roadmap
- Training
- Required resources embedded into organisation
- Optimise energy use
- Good asset management
- Reduce emissions including optimise vehicle fleet
- NPV of alternative energy

- Net zero KPIs linked to performance plans
- Design for optimal efficiency
- Optimisation using smart systems
- Incorporate offsets into decision making
- Wholesale power purchase agreements

- Identify potential future roles and needs
- Quantify fugitive emissions and Scope 3 emissions
- Shadow carbon pricing implemented
- Modifications to treatment processes
- Minimise embedded carbon in capital projects – consider ‘no build’ scenarios
- Smart use of offsets
- Build renewable energy sources

- Joint funding initiatives with the community and suppliers
- Smart assets with automated procurement

Sector and ecosystem

- Build customer awareness about “why” you are reducing emissions and the value/benefit to them
- Activate the social licence

- Build awareness of key strategic partners
- Raise customer awareness of their actions
- Build community awareness

- Clear and measurable partnership deliverables
- Avoid lock in agreements
- Empower customers
- Customer engagement/ willingness to pay
- Engage the local community to improve social value

- Develop strong commercial partnerships
- Advocate for change
- Choose suppliers with emissions targets
- Incentivise customers
- Enable regional community opportunities
- Help reduce energy volatility

- Deliver beyond net zero through partnerships
- Protect the needs of future generations
- Improve the impacts to the State