



ENVIRONMENTAL

ZEN | A 1.5°C
WORLD FOR
EVERYONE



WELCOME
TO OUR ESG
REPORT



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Welcome to our second Environmental, Social and Governance (ESG) Report. We report on the progress made against our commitments and achievements over the last year and detail new targets and strategies for the future.

Since becoming Australia's first 1.5°C electricity retailer, we have begun to reflect on how we can help create a 1.5°C world for everyone, and what this world looks like. We also recognise that no part of ZEN operates in isolation, and this thinking forms our sustainability reporting plans. Alongside the recent release of International Financial Reporting Standards Foundation (IFRS) S1 and S2 standards from the International Sustainability Standards Board (ISSB), and the upcoming Australian Sustainability Reporting Standards, we believe that by presenting a fuller picture of our business, we can more accurately account for our impact. Going forward, we aim to more tightly align our reporting with these standards, as well as the Integrated Reporting Framework established by the IFRS.

To improve our reporting this year, we engaged BDO to perform a gap analysis of the environmental data reported in the 2022 ESG Report and its alignment with the relevant Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) metrics. BDO recommended changes or updates to multiple metrics. BDO also conducted a high-level review of our sold electricity emissions calculations and found nothing that indicates ZEN's methodology for reporting market-based sold electricity emissions is not in alignment with current Science Based Targets initiative guidance – "**Setting 1.5°C-Aligned Science-Based Targets: Quick Start Guide for Electric Utilities**". We have included an Addendum to the 2022 ESG Report and incorporated their advice into this year's reporting.

We love to discuss sustainability reporting! If you have any questions or comments, articles you want to share or useful resources please reach out to us at enquiries@zenenergy.com.au



01. Introduction



Chair's report



Over the past year, the Australian government has adopted the vision espoused by my peer on the board of ZEN, Professor Ross Garnaut AC, that Australia can become a renewable energy Superpower. This represents Australia's greatest opportunity we have in this century to reshape the way that we contribute to the world and in a positive way. I am uniquely proud of the work that the team at ZEN, led by our CEO, Anthony, has done to contribute to the acceleration of our country's efforts to realise this vision.

This year we achieved a number of significant milestones at ZEN. On the customer front, we onboarded new customers, Bunnings and a group of NSW local government associations, to take our total customer volume to over 1TWh. We signed a number of solar and wind power purchase agreements, to take our contracted renewable generation over 1TWh. On the financial front, we achieved \$64M in EBITDA, representing a three year compound annual growth rate of 300%.

These numbers all indicate that we are becoming a substantial player in the Australian electricity market, and validate our core strategy which is summed up best by Anthony as a three-step waltz:

Step 1: We build enduring partnerships with sustainability-driven customers.

Step 2: We source renewable generation and storage while actively managing value and risk across the entire supply chain.

Step 3: We manage market risk and seize opportunities with a strategic view of the energy transition.

A waltz is continuous, keeping the dancers moving and flowing around and around the room. So too for our journey at ZEN as we dig deeper, this year, into the energy transition, tackling head on all the complexities and doubts that lie ahead of us as we strive to deliver an extraordinary amount of new, renewable energy to our customers by 2030.



Chair's report

This year we appointed two new executives to join our leadership team, as we refresh and reshape ourselves for the next phase of growth. These are Phillipa Chen and Caroline Evans, joining us in the capacity of Chief Financial Officer and Chief Operations Officer, respectively. I look forward to working with both of them closely as we build the business over the coming years.

To my delight, both new executives are women of diverse professional backgrounds, such that one third of our executive team is now female. This comes on the back of the exceptional work that the team at ZEN has done this year on promoting gender diversity through the ZEN-A group, chaired by Non-Executive Director, Paula Conboy. Under ZEN-A's guidance, ZEN became the first Australian-headquartered energy retailer to sign up to the Global Equal by 30 Initiative, a program focused on working towards equal pay, equal leadership and equal opportunities for women in the clean energy sector by 2030. ZEN-A also proposed a gender pay review and revised parental leave policy, both of which were signed off by the board for launch in FY24.

Our staff engagement was measured at 89%, significantly above the largest energy companies in Australia this year. To me, this number signifies the focus, dedication and resolve that the ZEN team has to deliver innovative solutions to our customers and partners.

I see it in the work of Paul, Bronwyn, and Mel supporting our customers, and maintaining exceptional levels of satisfaction. And from Dan, Fin and Shelley as they work hard to deliver new assets and opportunities to generate renewable energy. And from Chris, Heath, Soumya and the extended data analytics team who have been building on the most advanced data platform available. And from June, Subhrajit and Pritam, who rebuilt our customer portal, with a single, common purpose – to delight our customers.

And there are many more contributors, working hard across the business to engage and delight our customers while driving the renewable energy transition.

I also note how much more detail we have provided in our second ESG report, including pleasing results against our 2022 commitments.

I am profoundly honoured to chair ZEN and excited about what this great organisation has ahead of it in 2024.



The ZEN Energy team volunteering at the Fork Tree Project.

CEO report



ZEN Energy CEO, Anthony Garnaut

A 1.5°C world for everyone.

What does that mean? In this, our second ESG report, we seek to expand and grow the sustainability vision that we described in our first ESG report and how we are progressing in realising this vision. We are broadening our view from being Australia's first 1.5°C electricity retailer to seeking a 1.5°C world for everyone.

We are drawing on **Kate Raworth's Doughnut Economics model**, recognising the right for everyone to live in a 1.5°C world. Why? ZEN is continuing to look forward, to expand the way that we do business to accelerate Australia's journey to becoming a renewable energy Superpower. Through doing this, we can ensure that we all exist within the 'Doughnut' - the safe and just space for humanity – whilst deeply respecting our ecological ceiling.

Within the Doughnut, there are areas that we can directly impact and there are areas that we can influence. We look to our role as an energy provider, conscious of the right for everyone to access energy – and we believe that everyone has the right to energy that will protect our precious planet, while enabling us all to thrive.

Our very business model is based on ZEN taking action to reduce climate change and our actions where we develop assets will focus on limiting further biodiversity loss, seeking to convert degraded sites to be part of the new clean energy world and protecting the natural world to the best of our ability.

As we kicked off a capital raising program in the second half of the year, I was reminded of exactly why our investors are attracted to ZEN; they want to become drivers of change in the transition, not rent-seekers blocking change in order to preserve the value of their carbon-risk assets. The investors who are attracted to our organisation are impact investors, those seeking to be stakeholders. We are leaning into the concept of stakeholder finance – partnering with people who believe in what we are doing and subscribe to the Superpower vision.

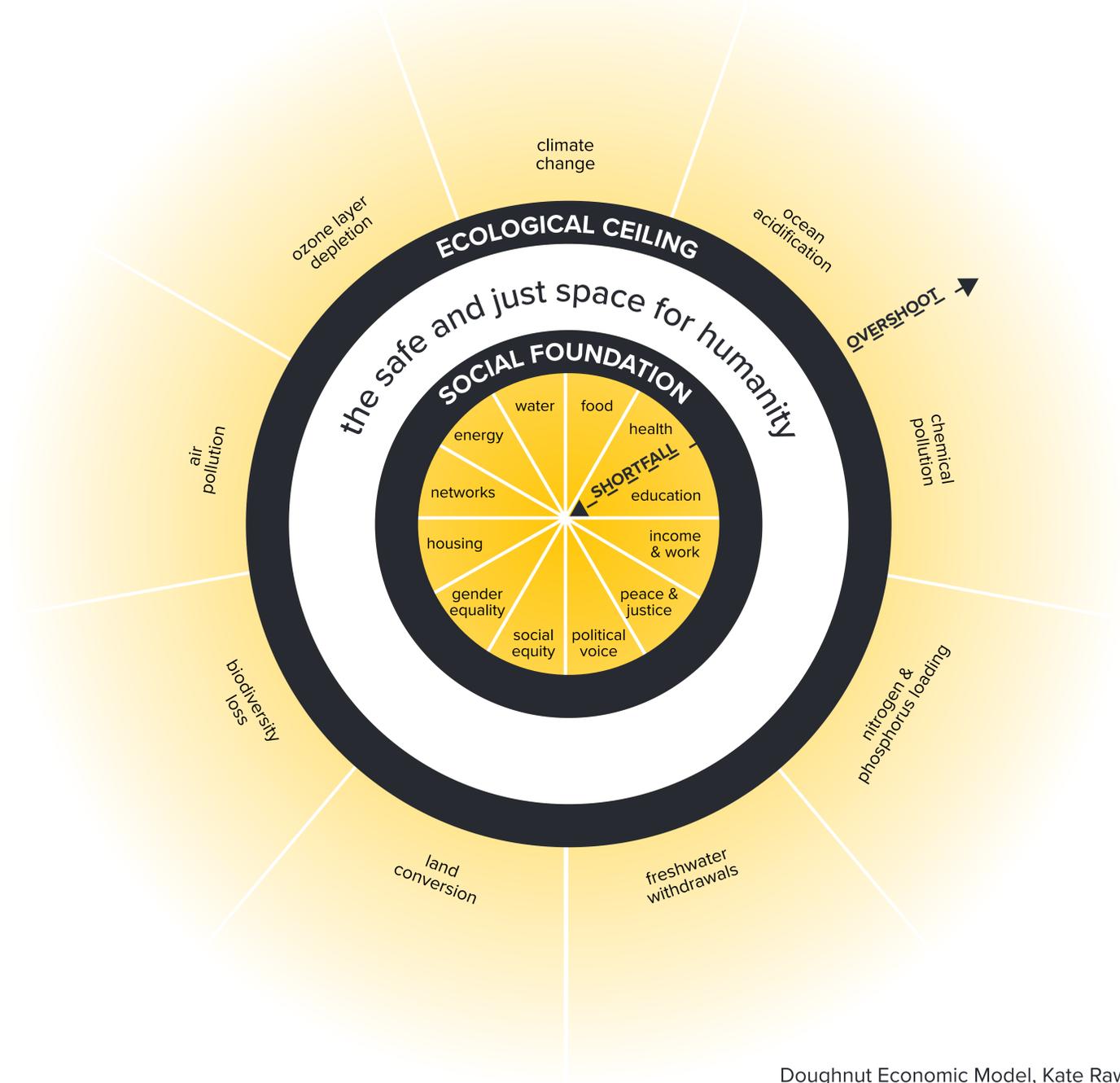
Our board composition is reflective of this. The majority of our board directors are significant shareholders with portfolios reflecting their focus on stakeholder finance and impact investing. It is a testament to this engagement that, in our recent fundraising, close to half of the subscribers are existing ZEN shareholders.

Looking ahead, FY24 will see us bring our own assets online, continue our growth trajectory in securing PPAs, working with customers to expand Australia's green industries, working with traditional owners on Country and sharing benefits of doing good business, and seeing us grow our share of renewable energy customers. We are looking to refresh and realign our business structure in preparation for the next stage of growth as we redouble our focus on the energy transition. And most importantly, we will work harder to bring communities into the Doughnut, to keep our business under the ecological ceiling, ensure a safe social foundation and define a 1.5°C world for everyone.

CEO report

We note the areas within the Doughnut Model where we can have direct impact:

- **Energy** – ensuring that this key social foundation is available in the cleanest and most cost-effective manner. This means continuing our path to scale our portfolio and provide a full 5TWh of clean energy to our customers by 2025. Importantly, this means progressing our strategy to provide firm renewable energy (stored energy through batteries including pumped hydro) so that Australians can benefit from the cost reductions that will ripple through the NEM as we start to use solar and wind when it is at its cheapest and store that energy for use during peak demand.
- **Gender Equality** – working hard to build and enhance equality within ZEN and with all the partners that we work with.
- **Social Equity** – earning our social license through behaving in the right way to help all access the 1.5°C world. Working with the communities where we operate to ensure that we engage with them early, often and transparently.
- **Biodiversity and Loss** – minimising impact on the land where we operate, taking steps to protect the local environments.
- **Land Conversion** – seeking out areas that can be rehabilitated or change their use for the better.
- **Climate Change** – continue to work with our customers and stakeholders to minimise environmental impact, bring customers to 100% renewable energy and enable new green industries in Australia.



02.

About ZEN



Our purpose

Our purpose is to lead communities into the zero-carbon world. Our first step was to adopt a science-based emissions reduction target in line with 1.5°C. Now, we focus on communities by helping build a 1.5° world for everyone.

Our values and non-negotiables are the foundation on which we have built our suite of corporate policies, providing the framework for all ZEN people to work ethically.

● Core values

● Non-negotiables

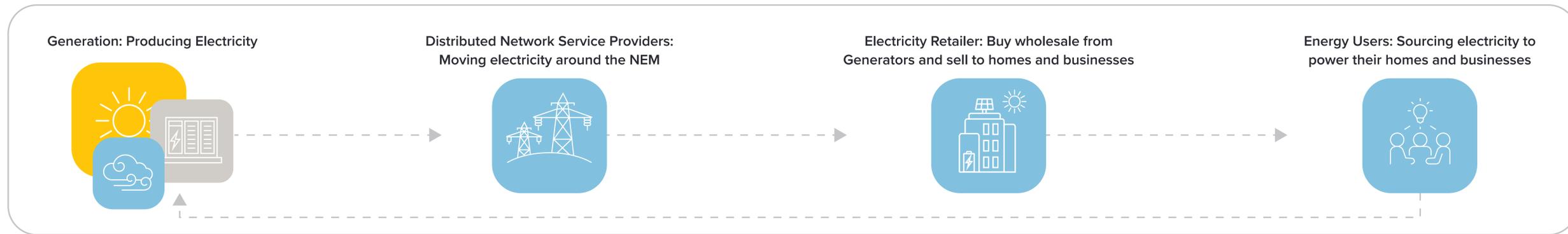


Our business model and strategy

As an electricity retailer, we exist within a larger electricity value chain of electricity generation, transmission, distribution, and consumption. Within the National Energy Market (NEM), there are simultaneous value streams in the spot and contract markets.

As a renewable electricity retailer, we exist in a related, overlapping value chain in renewable electricity.

Electricity Supply Chain



ZEN's Role

ZEN Generation: Sourcing renewable energy and storage from partners through PPAs and developing our own renewable assets

ZEN's Role: Engaging DNSPs to bring new assets online and support our customers

ZEN Retail: ZEN sells to large commercial and industrial customers who want 100% renewable or agree to a plan to get there by 2030

ZEN's Customers: Large commercial and industrial customers focused on a path to net zero. ZEN customers can also help support the development of new renewable generation

Actively managing ZEN's trading strategy to protect and de-risk our customers and partners from the volatility of the wholesale electricity market.

FY23 business strategy

We will scale our portfolio of renewable generation and storage.

Continuing our engagement with sustainability-driven customers.

Continuing to develop our enabling and enhancing business activities and accelerating our capital strategy to support our business growth.

FY23 Highlights

2022-23 Energy Industry Context

A lot happened in the energy market during 2022. We saw a deep tightening of energy markets as the global economy recovered from the Covid years, exacerbated by the Russian invasion of Ukraine. Locally, a cold start to winter increased demand, and wet weather and significant coal power plant outages further constrained supply. The result was an unprecedented escalation in wholesale prices, with spot prices for the year averaging almost twice that of any other year, and contract prices leading even further.

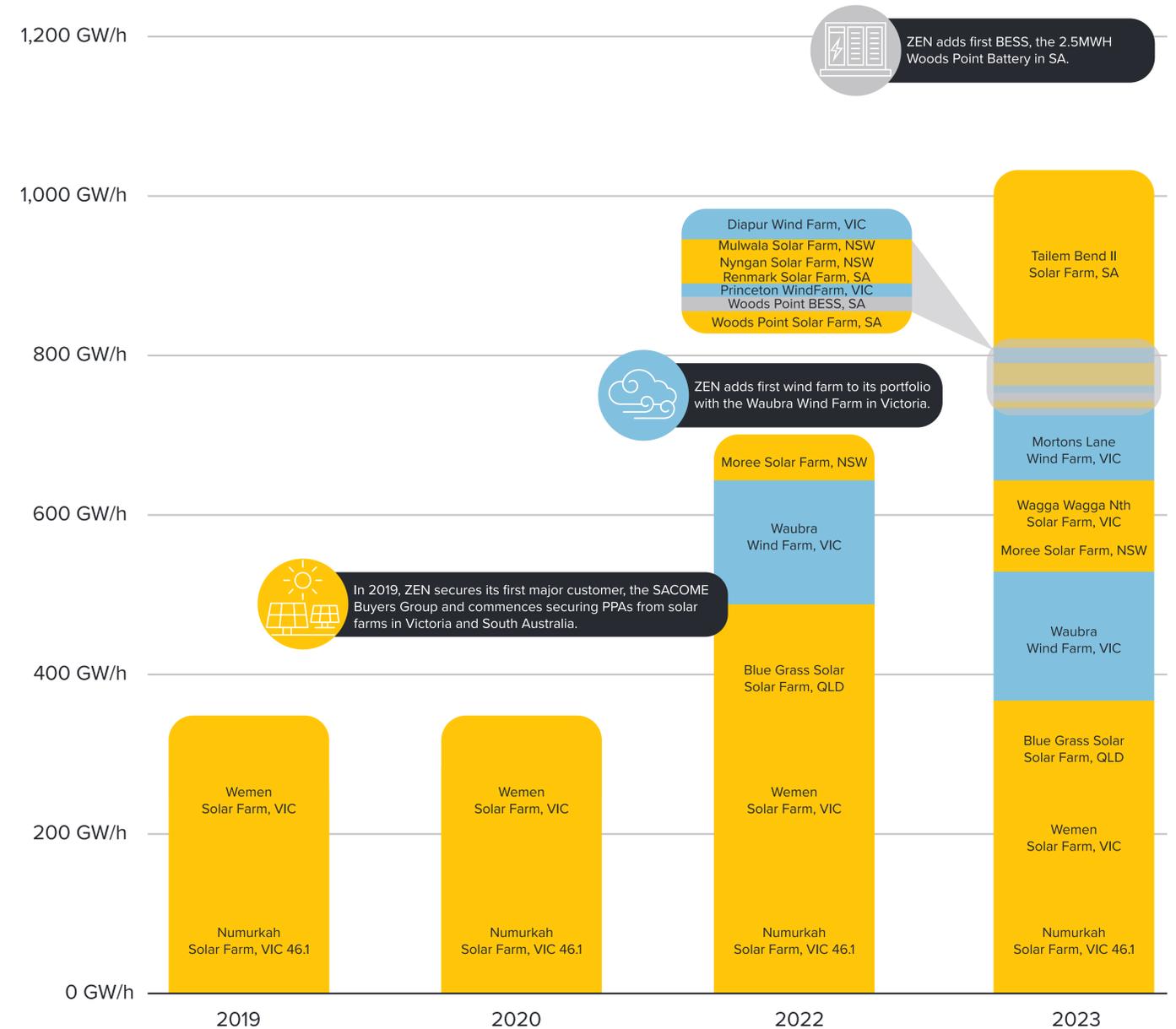
These extraordinary events resulted in AEMO suspending the market from the 15th of June through to the 24th of June. While these dates were not strictly within this reporting period, the impact was long-lasting, powerful, and felt across our industry, including by forcing a number of retailers to exit the market.

During this time, ZEN increased our communications with our customers, ensuring they were across market issues and clearly sharing our approach to price changes and contractual obligations. Due to the increased market volatility, ZEN focused on shoring up our supply of renewable energy and project pipelines to enable more renewable energy to enter the NEM.

Sourcing Renewable Energy

We continued to grow our customer base in FY23, including expanding our existing contracts through adding new locations and upgrading customers to 100% renewable energy, as we have committed to do. Our team also deepened and expanded our energy supply portfolio throughout the year, establishing a growth trajectory for the next few years. This is key to enabling more reliable renewable energy supply and ensuring pricing drops to bring all Australians within a safe social foundation. We grew our renewable energy contracted supply from PPAs by 52% year on year, setting us up to provide renewable electricity to both existing and new customers in the future.

ZEN Energy PPA Growth since 2019



FY23 Highlights

Sourcing renewable energy

September
2022

A 10-year deal with ACCIONA Energía's Waubra Wind Farm for 200,000MWh of 100% renewable energy per year.

November
2022

An agreement with Sustainable Energy Infrastructure and YES Group giving access to a portfolio of PPAs sourced from a series of compact, dynamic assets commencing with a 5MW PPA from the SEI-owned Mulwala Solar Farm and including up to an additional 30MW of combined BESS/sub-5MW solar farms in Victoria, South Australia and New South Wales.

November
2022

We announced our participation as an off taker from the Bluegrass Solar Farm along with Stanwell Corporation and Salesforce.

February
2023

An agreement with Australian superannuation fund, Prime Super added 37.7 MW from three wind farms in Victoria, comprising of Diapur Wind Farm in Nhill, western Victoria, Ferguson Wind Farm in Princetown in the Corangamite Shire, and Mortons Lane Wind Farm in the southern Grampians.

March
2023

We bought the Templers Battery Project from RES, located approximately 60km north of Adelaide. When complete, it will deliver up to 111MW of power into the grid and store 270MWh of energy and is expected to cost more than \$200 million and provide an estimated 181 jobs during construction.

May
2023

Our first long-term agreement with MYTILINEOS to take 80% of the electricity and LGCs generated from their 18.7MW Wagga Wagga South solar plant.

“

“Our mission to build a better planet now is shared with ZEN Energy. They are as motivated as we are to create sustainable solutions for their customers and we're excited to see our partnership with them grow with the Waubra Wind Farm agreement.”

**Melanie Sutton, Director of Energy
ACCIONA ENERGÍA**

“

“In line with PATRIZIA's approach to sustainable investing and supporting local communities, we are focusing on delivering renewable energy solutions alongside ZEN, SEI and YES Group throughout regional Australia. These small projects enable us to get assets into the market faster, and it provides us with a diversified and scalable platform.”

**Saji Anantakrishnan, Head of Infrastructure
PATRIZIA**

“

“The YES Group has grown and flourished in regional South Australia. Our business model is all about working with organisations with the same values as us and a focus on serving communities. Both SEI and ZEN are perfect examples of such partners; innovative, dynamic, and focused on creating change. We look forward to bringing on many more projects together.”

**Mark Yates, Managing Director
YES GROUP**

“

“We are proud that the Templers project will be able to play a critical role in providing a secure and stable energy supply for the Australian electricity market into the future... RES is excited to have provided development services to ZEN on the final development items and continuing discussions to provide support with construction and asset management arrangements.”

**Matt Rebbeck, CEO
RES in Australia.**

FY23 Highlights

Broadening our customer service offerings

In October 2022, ZEN entered into a collaboration agreement with Adelaide-based MAC Trade Services to combine its hardware and technology services team. This involved the ZEN Energy team members responsible for this part of the business joining MAC Trade Services, along with existing inventory and an established book of ZEN's current projects. We have developed a collaborative, growth-focused relationship with MAC Trade Services, which includes sharing team members, expertise, and go-to-market approaches. The MAC Trade Services team are just downstairs from us and regularly hosts the ZEN team for table tennis and games nights.

ZEN and MAC Trade Services are now working to bring their two distinct skill sets to clients to improve the efficiency of how they consume energy with a core focus on sustainability. We are working together on new projects and developments and can provide a broader range of products and services than ZEN can access on its own.

Importantly, ZEN's hardware and technology customers have not seen any change in the services they receive. ZEN works with MAC TS as a preferred design, delivery, installation, customer care and support services supplier.

“MAC Trade Services is delighted to be working with ZEN Energy and providing decarbonisation services to its’ national customers and their communities. The two businesses share the same values and ambition to be active supporters in the transition to a net zero future for Australia.”

- Matthew Csortan, Chief Operating Officer, Mac Trade Services.

MAC Trade Services has built a fast-growing business providing organisations in South Australia and the eastern states with a full range of energy efficiency services. Focused on optimising government incentives, decreasing energy costs, and improving the sustainability ratings of businesses, MAC Trade Services is now South Australia's largest and longest-running energy efficiency services provider. They deliver more than 40% of the total annual target for South Australia's Retailer Energy Productivity Scheme (REPS), delivering energy-efficient hardware solutions leveraging their network of over 200 trade professionals and upgrading more than 6,000 homes and businesses annually.

MAC Trade Services provides energy efficiency to many of South Australia's most vulnerable communities, enabling them to minimise their energy costs and keep moving to a more distributive economic model.



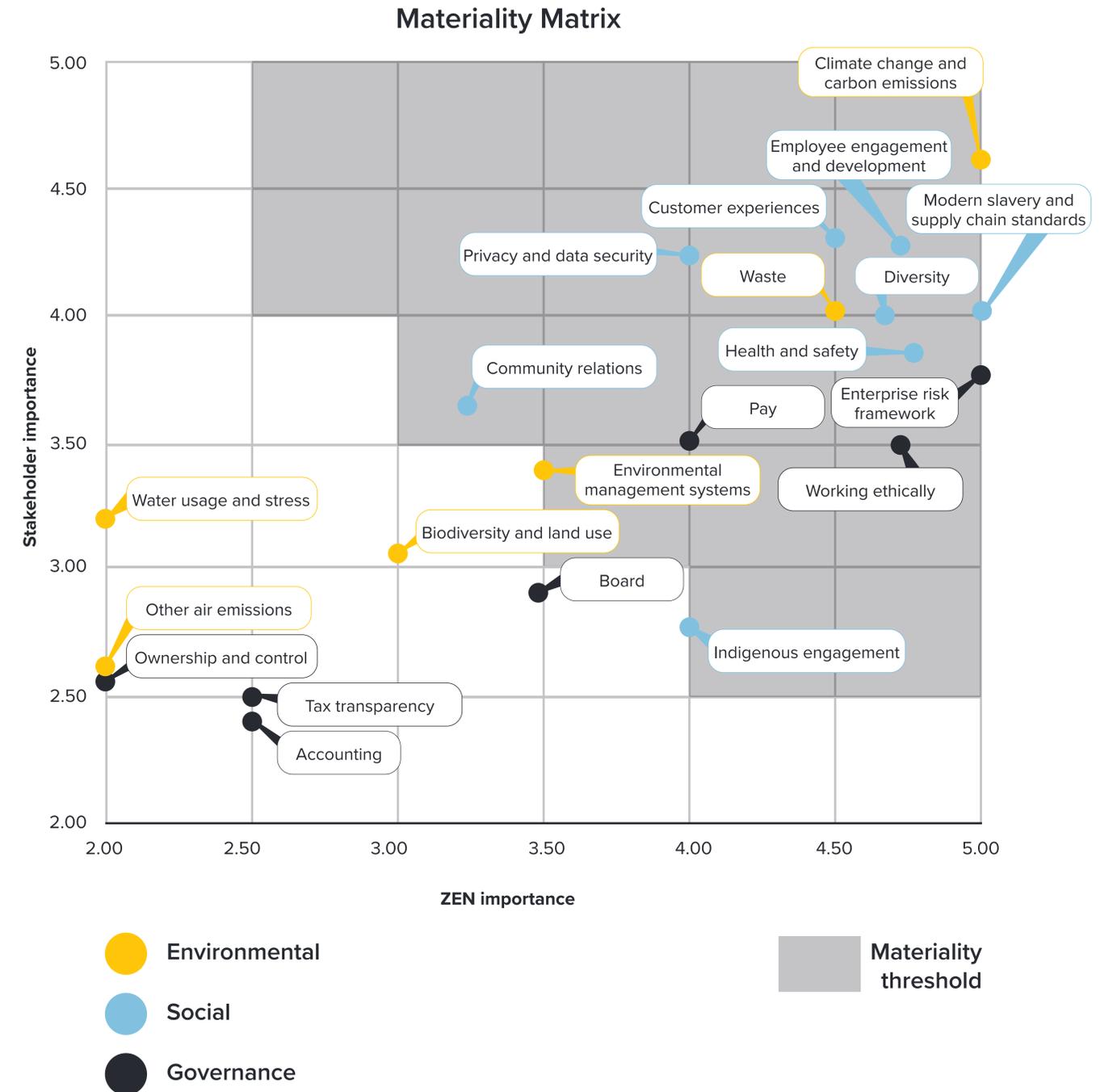
MAC Trade Services

Our material ESG topics

As a small organisation, we have chosen to focus on delivering our commitments made in the 2022 ESG Report resulting from our previous materiality assessment. As streams of work become embedded, we will continue to focus on where we can have maximum impact and meet our stakeholders' expectations.

This previous materiality assessment was carried out with reference to stakeholder priorities to identify the material ESG areas. Initial broad lists of material topics were compiled through research and reference to industry reports, MSCI ESG Materiality Map, SASB Materiality Finder, GRI Standards, and material from Sustainalytics. From this initial list, stakeholder groups, including employees, customers, suppliers, and investors, were engaged through surveys, informal discussions and document scans to determine each group's materiality rankings in relation to ZEN. This took place over February and March 2022. The materiality survey was sent to all ZEN team members and 62 partners, consultants, suppliers, installers, and potential investors. Additionally, stakeholder priorities were drawn from public sustainability reports from eight customers, investors, contractors, and suppliers. The Board approved the materiality topics on 22 March 2022.

The ZEN materiality matrix shows the importance of relevant material issues to ZEN and our stakeholders.



Progress against our commitments

Material issues	Our commitments	Progress against our commitments
Environmental		
Climate change and carbon emissions	<p>To reduce our emissions faster than required by SBTi for 1.5°C for an SME by:</p> <ol style="list-style-type: none"> 1. Having zero scope 1 and 2 GHG emissions by 2023. 2. Measuring and reducing our scope 3 emissions, including compiling an account of our Scope 3 emissions by the end of 2023. <p>To voluntarily reduce our sold electricity emissions in line with the SBTi's guidance for electric utilities by:</p> <ol style="list-style-type: none"> 3. Reducing emissions intensity of sold electricity by 97.7 per cent by 2030 from a 2020 baseline. 4. Reducing absolute emissions of sold electricity by 71.6 per cent by 2030 from a 2020 baseline. 	<ul style="list-style-type: none"> • We reduced Scope 1 emissions to 1 t CO₂-e and eliminated scope 1 emissions entirely from October 2022. • We have surrendered LGCs equivalent to 100% of our office usage across both Melbourne and Adelaide, eliminating our scope 2 emissions. • We have made progress in building a broader Scope 3 emissions account, using spend based factors as a starting point to quantify these emissions. • We have reduced our scope 3 sold electricity emissions intensity by increasing the proportion of 100% renewable customers in our portfolio. • While we have increased the proportion of renewable energy sold by 12%, our customer load also increased resulting in a small increase of 2% in our Scope 3 sold electricity emissions. We continue to focus on working with our customers to get them to 100% renewable energy as soon as possible.
Environmental management systems	<p>Developing environmental and waste management plans that achieve the following goals, with timeline being dependent on each asset development.</p> <ul style="list-style-type: none"> • To fully comply with required environmental and waste-related regulations for renewable asset development. • To include in subsequent ESG reports on opportunities to realise a circular economy in the renewable energy sector and explore options to integrate this consideration in our asset development and operation strategy. 	<ul style="list-style-type: none"> • We have included construction environmental management plans in our contracts to ensure that our projects are in line with legislative requirements.

Progress against our commitments

Material issues	Our commitments	Progress against our commitments
Social		
Diversity	To develop and implement ZEN's diversity and inclusion policy and commitments by the end of 2023.	<ul style="list-style-type: none"> • We conducted our employee diversity and inclusion survey in late 2022. • As part of our response to the results we have: <ul style="list-style-type: none"> ◦ Held inclusive leadership training. ◦ Achieved 89% on our Inclusion Survey. ◦ Established 'ZEN-A' – ZEN's women's network. ◦ Signed up to the global Equal by 30 initiative. ◦ Increased paid parental leave to 18 weeks from 6 months of employment. ◦ Removed primary and secondary carer language in the leave policy. ◦ Established a group mentoring program. ◦ Held leadership and training programs for women. ◦ Reviewed work policies to ensure cultural sensitivity as part of our RAP work.
Remuneration	To improve ZEN's performance and remuneration framework across every level of the organisation (i.e. Board, Executives and all staff) and broaden performance goals and review to include ESG targets and commitments by the end of 2023.	<ul style="list-style-type: none"> • Implemented a new HR information system to enable a better performance and remuneration framework. • Included ESG targets and commitments in the internal scorecard. • Initiated a review of the remuneration framework to enable alternative progression pathways and more transparent pay scales and performance benchmarks. • As business goals for FY24 are finalised we will continue to develop individual performance goals for all ZEN people.

Progress against our commitments

Material issues	Our commitments	Progress against our commitments
Social		
Employee engagement and development journey	To develop and implement a program to sustain existing high levels of engagement in ZEN (with impact monitored through our annual employee engagement survey) and to develop and implement ZEN's professional development framework, policy and corresponding targets by the end of 2023.	<p>We conducted our employee engagement survey in late 2022. As part of our response to the results, we have:</p> <ul style="list-style-type: none"> o Achieved 89% in our staff engagement survey. o Continued our Social and Wellbeing committee. o Implemented ZENnet intranet to improve internal communications. o Implemented diversity and inclusion actions that will also improve engagement. <ul style="list-style-type: none"> • Undertaken professional development activities. • Held an all-staff, multi-day strategy, team-building, and professional development event – “ZEN Assemble”.
Work Health and Safety	To complete the ongoing review of the WHS policy and risk register, with a particular emphasis on including mental health and wellbeing and WHS considerations related to renewable asset development by the end of 2023.	<ul style="list-style-type: none"> • Provided mental health first aid training. • Added Psychological Health and Wellbeing to the WHS Objectives and Targets. • Developed the ZEN Journey Management Process to improve coverage of WHS considerations. • Collectively took 183 wellbeing days.
Customer Experiences	<ul style="list-style-type: none"> • ZEN will only offer 100% renewable retail products or partner with new customers to develop a viable path towards 100% renewable supply. • ZEN will work with existing retail customers to explore solutions to achieve a 100% renewable energy supply before 2030. • ZEN will continue collaborating with our existing retail customers to explore and identify demand management, energy efficiency and electrification opportunities to achieve common sustainability goals. 	<ul style="list-style-type: none"> • Continued to work with customers to sell more renewable electricity and implement behind-the-meter opportunities to improve customer experiences.

Progress against our commitments

Material issues	Our commitments	Progress against our commitments
Social		
Community relations	To continue with our proactive engagement with environmental-based NGOs and sustainability driven organisations and communities on projects that deliver environmental and social value. We will seek to quantify these values as far as possible.	<ul style="list-style-type: none"> • Held volunteering days across Adelaide and Melbourne. • Engaged with Government at all levels on policies required to enable a 1.5°C world for everyone. • Engaged other sustainability driven organisations and communities at sustainability and clean energy events.
Modern slavery and supply chain standards	<ul style="list-style-type: none"> • To be a leader in the renewable energy sector on the due diligence process in ensuring supply chain integrity and mitigate against modern slavery risks. • To ensure all our renewable asset development is thoroughly assessed through our Supply Chain Code of Conduct (which integrates requirements from our Modern Slavery Statement as well as being eventually aligned with our broader ESG strategy). We will progressively report on the outcomes of these assessments via our ESG reporting. 	<ul style="list-style-type: none"> • Established a Project Management Office to implement standardised project processes, including supply chain assessments. • Developed and applied: <ul style="list-style-type: none"> ◦ Project Risk Management Procedure. ◦ Modern Slavery Due Diligence Procedure, including engaging external parties to conduct onsite audits of offshore supplier facilities. • Investigating a polysilicon tracing partnership to provide more assurance to the origins of raw materials used in solar panel manufacturing.
Indigenous engagement	To develop ZEN's Reconciliation Action Plan, including the best practice thinking and approaches, by the end of 2023.	<ul style="list-style-type: none"> • Continued to work with customers to sell more renewable electricity and implement behind-the-meter opportunities to improve customer experiences.

Progress against our commitments

Material issues	Our commitments	Progress against our commitments
Governance		
Enterprise Risk Framework	To mature and broaden our existing risk management policy and ensure that it covers all aspects of the business – across both strategic and operational issues before June 2023.	<ul style="list-style-type: none"> Developed a Board-approved risk appetite statement for the business. Implemented improved governance structures, including an initial ERM framework that assesses risk positions against the risk appetite.
Privacy and data security	With our information security management system aligned to the South Australian Cyber Security Framework , to mature our internal policies and processes and align them with the Australian Energy Sector Cyber Security Framework by the end of 2023, alongside with the ISO27001 Information Security Management accreditation.	<p>Begun ISO 27001 accreditation in FY23, with final accreditation achieved in July 2023.</p> <ul style="list-style-type: none"> Conducted ransomware exercise and defined disaster recovery teams as part of contingency planning.

03. Environmental

- Highlights
- Scope 1 and 2 emissions
- Scope 3 sold electricity emissions

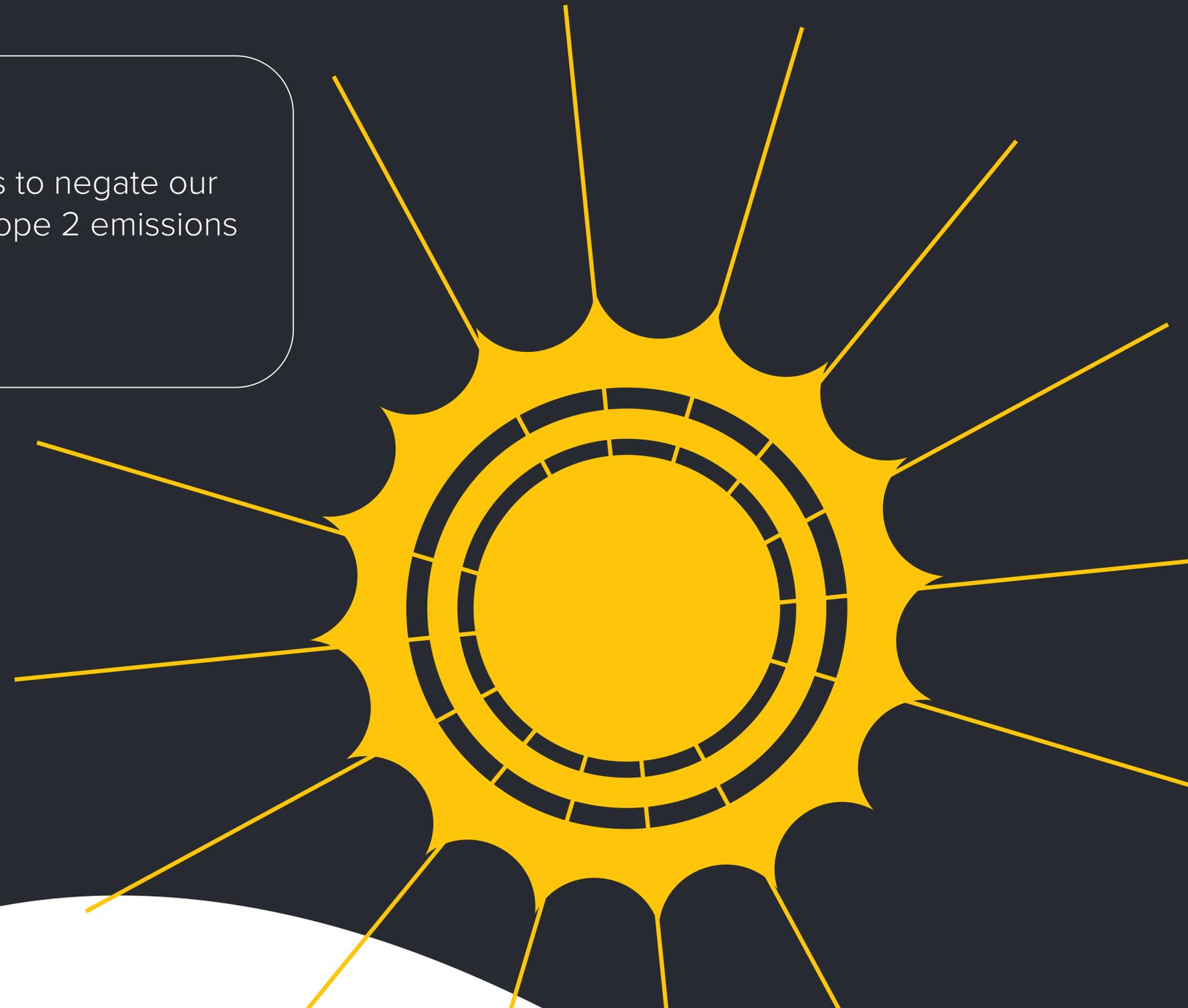


Highlights

We reduced Scope 1 emissions to 1 t CO₂-e.

We voluntarily surrendered LGCs to negate our Scope 2 emissions, reducing Scope 2 emissions by 34 tonnes from 2021.

We increased customer proportion of renewable energy purchased to 39%. We reduced our sold electricity emissions intensity from 0.71 tonnes CO₂-e / MWh in 2021 to 0.58 tonnes CO₂-e / MWh in 2022.



Scope 1 emissions

In 2022, our company vehicle emitted 1 tonne of CO₂-e, compared to 3 tonnes in 2021, due to being used less. This is a reduction of 65%.

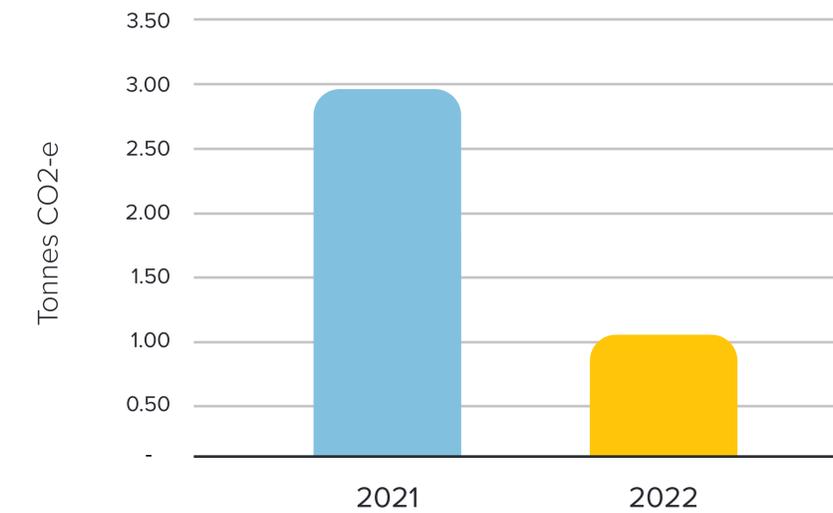
As part of the hardware transition, ZEN sold the company vehicle in October 2022, eliminating our source of Scope 1 emissions. This is a larger and faster reduction than required by our science-based target and in line with our 2022 ESG Report commitment.

How we calculated these emissions

We used the organisational control approach to consolidate our emissions, where “**a company accounts for 100% of the GHG emissions from operations over which it has control,**” as opposed to the equity share approach, where “a company accounts for GHG emissions from operations according to its share of equity in the operation.”

To calculate Scope 1 emissions, we use emission factors and global warming potentials from the **National Greenhouse Accounts Factors February 2023**, which include CO₂ (Carbon Dioxide), CH₄ (Methane) and N₂O (Nitrous Oxide).

Annual Scope 1 emissions (tonnes CO₂-e)



Scope 2 emissions

In 2022, ZEN offices in Melbourne and Adelaide consumed 45 MWh of electricity, decreasing from 47 MWh in 2021. Although we moved to a bigger office space in Melbourne and increased the number of Melbourne based ZEN staff to 62, the drop in electricity consumption was likely due to the period when Melbourne staff were working from home after vacating the former office and before moving into the new office.

ZEN surrendered 38 large-scale generation certificates (LGCs) voluntarily against our 2022 electricity consumption, which, in addition to the 18.64% Renewable Power Percentage, means that ZEN had ZERO Scope 2 emissions using the market-based emissions accounting method. This is a reduction from 34 tonnes CO₂-e in 2021 and a larger and faster reduction than required by our science-based target and in line with our 2022 ESG Report commitment.

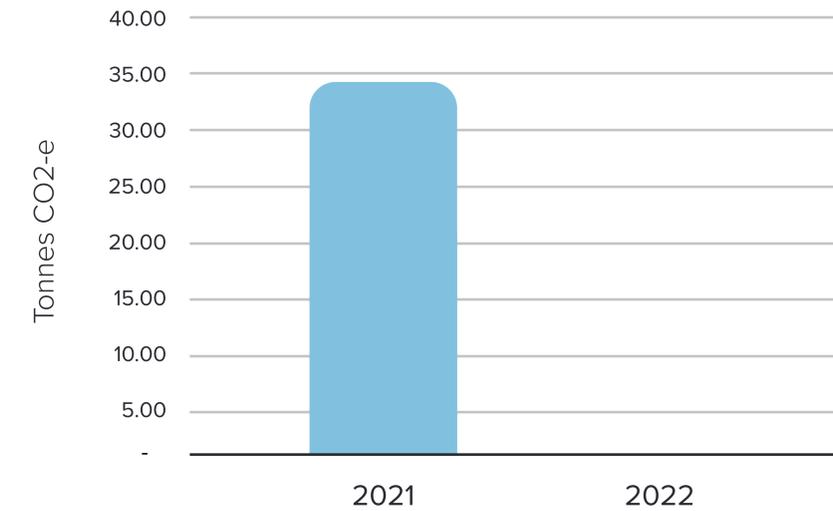
Although our targets were set using the market-based methodology according to the SBTi methodology, for full transparency we are also reporting our location-based emissions. Under this method, ZEN’s scope 2 emissions were 16 tonnes CO₂-e in 2022 and 22 tonnes CO₂-e in 2021. Although there is merit in reducing both market and location-based Scope 2 emissions, we are focusing on reducing our Scope 3 sold electricity emissions, given that they form the vast majority of our emissions.

How we calculated these emissions

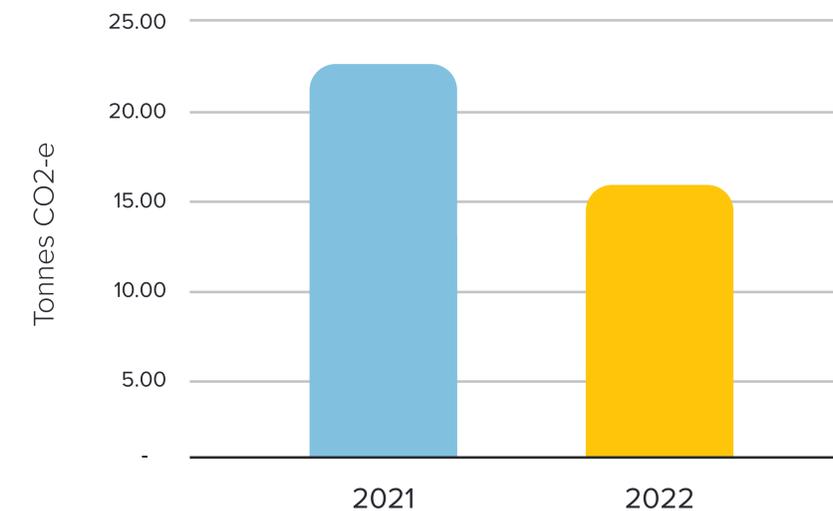
We obtained our office electricity consumption directly from the meter data for each site.

Under the market-based method, emissions-free electricity was calculated by subtracting the number of LGCs surrendered for the calendar year to the Clean Energy Regulator (CER) from the amount of used electricity. Any remaining electricity is multiplied by the Scope 2 emissions factors from the National Greenhouse Accounts Factors February 2023.

Annual market based Scope 2 emissions (tonnes CO₂-e)



Annual location based Scope 2 emissions (tonnes CO₂-e)



Scope 3 sold electricity emissions

ZEN has voluntarily committed to reduce our Scope 3 sold electricity emissions in line with the SBTi’s Guidance for the power sector.

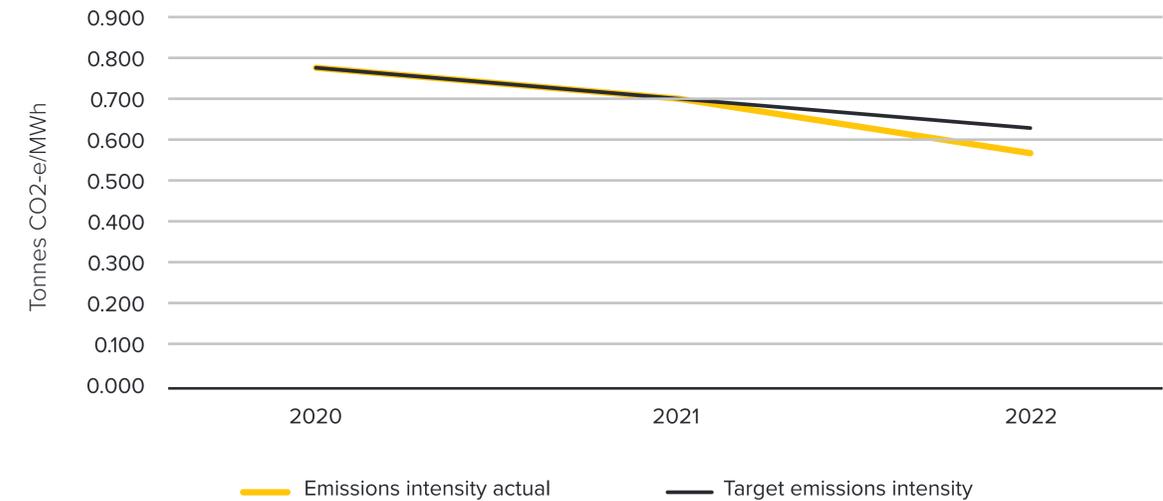
In 2022, we increased sold electricity by 24% from 745,373 MWh in 2021 to 925,846 MWh. When using the market-based approach, this resulted in a proportionally smaller increase in emissions of 2% from 526,043 tonnes CO₂-e to 536,624 tonnes CO₂-e. This is because our customers increased their proportion of renewable energy purchased from 27% in 2021 to 39% in 2022. This is reflected in the reduction of our emissions intensity from 0.71 tonnes CO₂-e / MWh in 2021 to 0.58 tonnes CO₂-e / MWh in 2022.

Our emissions reduction target informs our customer strategy, where we work together with new and existing customers to increase their use of renewable energy, enabling us to drive down our Scope 3 sold electricity emissions and collectively reduce our impact on climate change.

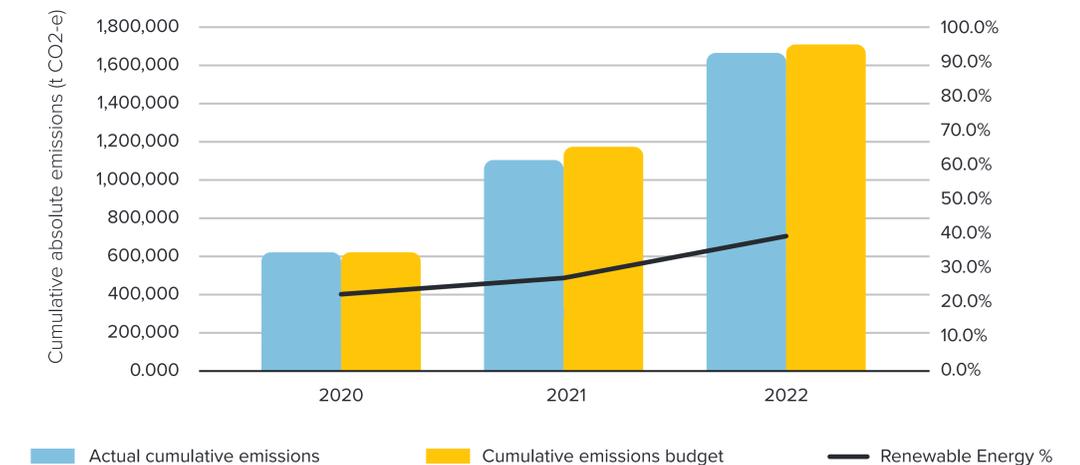
Going forward, we aim to more accurately model our customer contracts to better understand our emissions trajectories, and analyse different customer scenarios to better understand what will enable us to meet our emissions reduction targets.

After introducing new, more accurate, data processes and updates we’ve revised our 2020 and 2021 emissions numbers to ensure they are consistent with our 2022 calculations. We’ve also adjusted the target modelling in the **SBTi Target Setting Tool** by removing our customer load growth assumption. This results in a smaller absolute emissions budget (i.e. more absolute emissions reduction required), although the required reduction in emissions intensity is not as steep because of the reduction in assumed customer load. We’ve done so to provide a more representative baseline of how we are tracking against our emissions reduction targets and will add customer load to the target as our customer strategy evolves. We have done so in line with the triggered target recalculation criteria set out by SBTi.

Market-based emissions intensity (Scope 3 Cat 3 - sold electricity)



Cumulative market-based absolute emissions (Scope 3 Cat 3 - sold electricity)



Scope 3 sold electricity emissions

We have chosen to measure and track our Scope 3 sold electricity emissions reduction target using the market-based method because we believe this method requires organisations to put money behind their reductions claims and encourages the build of additional renewable energy generation. Our emissions reduction strategy involves working with customers to ramp up their renewable electricity purchases.

Conversely, adopting a location-based target would mean that our emissions reduction strategy would involve reducing our customers' electricity consumption, reducing the number of customers in our portfolio, encouraging our customers to move to, or only signing customers in grids with higher proportions of renewable energy, or building significant amounts of renewable energy generation in the same grids as our customer load. Reducing electricity consumption and increasing energy efficiency are vital components of the renewable electricity transition and key to us staying below the ecological ceiling. Still, if all our customers reduced their grid electricity consumption to zero, then we would have no customers!

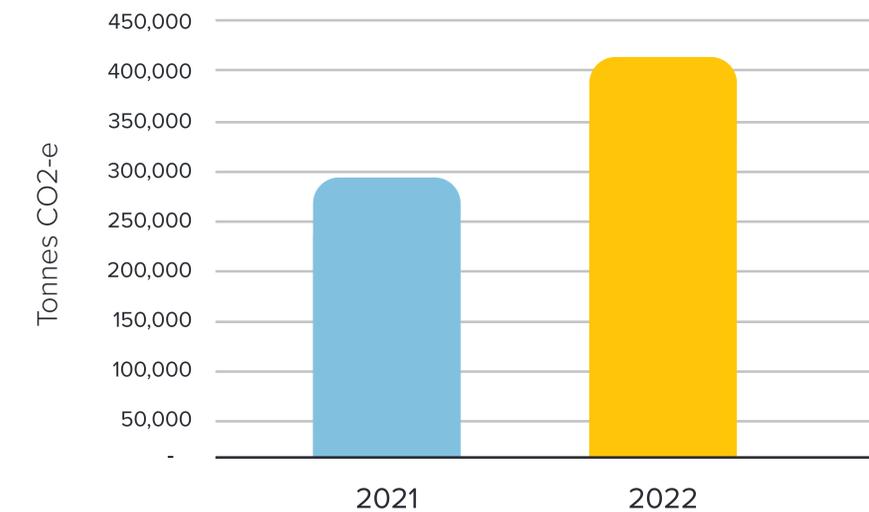
For full transparency, using the location-based method, our Scope 3 sold electricity emissions were 295,542 tonnes of CO₂-e in 2021 and 410,684 tonnes of CO₂-e in 2022.

Market-based reporting

During the consultation on proposed amendments to the National Greenhouse and Energy Reporting (NGER) Scheme, ZEN advised the Department of Climate Change, Energy, the Environment and Water the introduction of a mandatory market-based approach would better support Australia's 43% emissions reduction and 82% renewable energy targets. This would be achieved because a market-based method recognises purchases of renewable electricity certificates so will increase demand for those certificates. This increase in demand would result in better prices for renewable generators and promote investment in renewable generation.

The Department has determined that NGER reporting will now include a voluntary market-based accounting option, and while we welcome this as a first step, we will continue to call for mandatory market-based reporting as it is a critical step towards encouraging the strong investment required for Australia to meet its renewable energy target.

**Annual location based absolute emissions
(Scope 3 Cat 3 - sold electricity)**



Scope 3 sold electricity emissions

About electricity emissions calculations

Since releasing our emissions numbers last year, we have had lots of questions about the electricity market, how renewable electricity is treated and how our Scope 3 sold electricity emissions are calculated.

The National Electricity Market (NEM), covering Queensland, New South Wales (including the Australian Capital Territory), Victoria, South Australia, and Tasmania, manages “**the transport of electricity from generators to consumers is facilitated through a ‘pool’, or spot market, where the output from all generators is aggregated and scheduled at five-minute intervals to meet demand.**” This means generators cannot choose where their electricity goes, conversely, no consumer can choose where their consumed electricity comes from.

To account for electricity consumption emissions, there are **two accounting methods provided by GHG Protocol**, which form the basis of a wide range of sustainability reporting frameworks, including Science Based Targets, ISO, CDP, TCFD, and ISSB. Under the **SBTi’s Guidance for the power sector**, a Scope 3 sold electricity emissions reduction target can elect to adopt either the location-based or market-based accounting method.

In the location-based method, each State, Territory, or grid in Australia is assigned a separate emissions factor and multiplied by sold electricity in each jurisdiction.

In the market-based method, renewable electricity can be assigned when **large-scale generation certificates are surrendered to the Clean Energy Regulator**. The remaining amount of electricity is assigned a residual emissions factor, calculated using the Scope 2 and 3 national emissions factor published in the **National Greenhouse Accounts Factors** by the Commonwealth Department of Climate Change, Energy, the Environment and Water, adjusted to remove the impact of the Renewable Power Percentage. The amount of sold electricity is then multiplied by the residual emissions factor to calculate the GHG emissions associated with power deliveries.

BDO conducted a high-level review of our 2021 sold electricity emissions calculations and found nothing that indicates that ZEN’s methodology for reporting market-based sold electricity emissions is not in alignment with current Science Based Targets initiative guidance. We have used the same methodology for our 2022 emissions calculations.

Scope 3 sold electricity emissions

How we calculated our market-based emissions

Data	Unit	Value	Source	Notes
Electricity Consumption	MWh	925,845.97	AEMO - STEPCPDATA table	<p>This table “shows meter settlement data for each connection point. This is the key view for retailers to verify energy charges.” It is our source of truth for our customer electricity consumption. Sold electricity data from AEMO goes through several updates according to the following schedule:</p> <ul style="list-style-type: none"> • Consumption week – week X • Preliminary data – week [X+2] • Final data – week [X+4] • Revision 1 – week [X+20] • Revision 2 – week [X+30]
LGC Surrender	LGC / MWh	358,836	CER - REC Registry	The REC Registry is the portal through which our mandatory LGC liability is determined and where we surrender LGCs to the CER to meet both mandatory and voluntary LGC surrender requirements.
Emissions Factor	Tonnes CO ₂ -e / MWh	0.77	DCCEW - National Greenhouse Accounts Factors 2022	<p>Each year, the Commonwealth Government release National Greenhouse Accounts Factors that provide “emission factors and methods that help companies and individuals estimate greenhouse gas emissions”. We recognise that one of the major criticisms of the market-based method is that there will be double counting of emissions unless all reporters use a residual mix factor to calculate their electricity emissions. Because the locational-based method uses the grid specific emissions factor that has renewable electricity built into it, a locational-based organisation’s emissions reporting will include some proportion of renewable electricity that is also “claimed” by a different organisation that has bought and surrendered LGCs under the market-based method.</p> <p>Additionally, a residual mix factor should remove all renewable electricity from the factor, the National Greenhouse Accounts Factors could provide a centralised and standardised residual mix factor alongside the State-based factors. We have used the advice provided by the Government’s Climate Active program where the “national electricity factor is adjusted to remove the emissions benefit of all claimable renewable generation (through LGCs) to produce a residual mix factor”. We have adjusted the national combined Scope 2 and Scope 3 Factor using the year’s Renewable Power Percentage.</p>

Scope 3 sold electricity emissions

Data	Unit	Value	Source	Notes
Renewable Power Percentage (RPP)	%	18.64	CER	Under the Renewable Energy Target, the number of LGCs each liable entity is required to surrender each year is calculated by multiplying the amount of wholesale electricity (relevant acquisitions) they acquire (minus exemptions) by the RPP for that compliance year. Residual emissions factor to remove the impact of the RET (the amount of LGCs that we know for sure have been surrendered) – $0.77 / (1 - 18.64\% \text{ (the 2022 RPP)}) = 0.95 \text{ t CO}_2\text{-e / MWh}$
Residual Emissions Factor	t CO ₂ -e / MWh	0.94641	Calculated	For calculating market-based emissions, we use the RPP to obtain a residual emissions factor that excludes the renewable energy certificates we know have been surrendered. This has been calculated as $0.77 / (1 - 18.64\% \text{ (the 2022 RPP)}) = 0.94641 \text{ t CO}_2\text{-e / MWh}$.
Calculations	$(925,845.97 \text{ MWh} - 358,836 \text{ LGCs}) * 0.94641 \text{ t CO}_2\text{-e / MWh} = 536,624 \text{ t CO}_2\text{-e}$			

Progress on Scope 3 emissions account

We continue to progress the compilation of our broader Scope 3 emissions account beyond our sold electricity emissions. As an estimation, if we are similar to other office-based organisations such as **Bank Australia** and **ANZ** on an emissions per employee basis, our office-based Scope 3 emissions would amount to approximately 0.1% of our Scope 3 sold electricity emissions, well below the materiality threshold.

We are aware that as we progress in developing our own renewable energy assets, we will incur much higher Scope 3 emissions in construction, although the renewable energy generated by our assets in the future, if bought by our customers, will act to bring down our Scope 3 sold electricity emissions. We are committed to measuring the emissions impact of our renewable energy assets as we progress to development.



04. Social

- Highlights
- ZEN people
- Work Health and Safety
- Reconciliation Action Plan
- Community
- Customers



Highlights

We achieved 89% on both Inclusion and Engagement Surveys.

33 ZENers volunteered with community organisations across Australia.

183 wellbeing days were taken by ZENers.

We upheld our track record of zero customer complaints since 2020.

We became the first Australian headquartered electricity retailer signatory to the global Equal by 30 Initiative.

We moved to a new HR system to streamline and improve our employee experience.

We launched our first Reconciliation Action Plan.

We engaged more than 500 sustainability leaders to rank initiatives to address climate change in Australia.



ZEN people

In 2023, our overall workforce grew by 29%. We launched our first graduate program which will see six new graduates across ZEN when they have all been placed. We saw an increase in our team engagement to an industry leading level. We launched our new women's group – ZEN-A and have made marked improvement in female representation across the business. We continue to build staff engagement programs and have launched a refreshed and focused performance and remuneration framework to be rolled out in FY24.

Our internal communications have been refreshed and we launched our ZENnet platform to engage staff and share key business information. We have seen up to 87% of the ZEN team accessing ZENnet at any specific time. We launched our monthly staff newsletter, the CitiZEN, with a consistent 60+% open rate.

Performance and remuneration

As we leaned into building social equity across our stakeholders, in FY23 we moved to a new Human Resources Information System (HRIS), which will provide improved group and individual reporting. The new system allows us to capture improved data and highlight strengths and opportunities in areas such as retention, diversity, wellness, and remuneration. Alongside the new HRIS, a new, more efficient, payroll system was also implemented.

Now that the system is in place, we will work to implement improvements to our performance management framework, including aligning goals to business performance across financials, operations, customers, ESG, engagement and culture, formalising 1-on-1 and 360-degree feedback, and implementing ongoing learning and development goals. We expect to complete this work in line with our previous commitments by the end of calendar year 2023.



ZEN people

Employee Engagement and development journey

ZEN people continued to be highly engaged, scoring 89% engagement on the 2022 employee engagement survey, from a 96% response rate. This was an improvement on last year's result of 87% engagement and remained much higher than the benchmark score for Resources and Utilities Australia of 70%.

Largely, the results indicated that people felt that the open, motivational, engaged, and people-first culture is a great strength of ZEN and that ZEN's mission strongly resonates with people. Responses also indicated ZEN acts on innovative and promising ideas, and ZEN people praised our commitment to flexible work.

The survey provided insight into areas where ZEN could focus to continue to improve engagement. Broadly, these areas involved:

Areas to improve

- Resourcing – both in terms of people and systems
- Building more learning and development opportunities
- Bringing greater rigour to our performance reviews and remuneration

Actions taken

To improve these areas, we have:

- Hired 19 new people in FY23 across the business
 - This includes six new graduates as part of our new Curious Minds graduate program
- Implemented our intranet, ZENnet, to help communicate business and systems news and changes, reducing silos developing in our business as well as providing a central repository for knowledge management
- Undertaken professional development activities including:
 - Public speaking and presentation training
 - Inclusive leadership training
 - Career insights guest speakers
 - Mentoring and coaching sessions
- Held “ZEN Assemble” – a multi-day, all-staff strategy, team-building, and professional development event
- ZEN is rolling out an all-staff 1-on-1 360° feedback program, to facilitate development of our leadership capabilities throughout the business
- Our Reconciliation Action Plan includes further learning and development opportunities

We are committed to continuing the development and implementation of ZEN's professional development framework, policy and corresponding targets by the end of the 2023 calendar year.

Wellbeing initiatives implemented FY23

Our social and wellbeing activities continued strongly throughout FY23. Events saw strong participation throughout the year, and our quarterly wellbeing day policy clocked 183 days of proactive wellbeing leave taken by ZEN people over FY23.

Yoga

We attend weekly yoga sessions as a team to practice mindfulness and take time away from our desk.

SAHMRI Bright Walk

Our people walked together and raised funds for medical research.

Coffee Connect

Quarterly random employee pairings meet for physical or virtual coffee funded by ZEN.

Massage

A therapist comes into our office quarterly to massage our teams.

Cultural awareness training

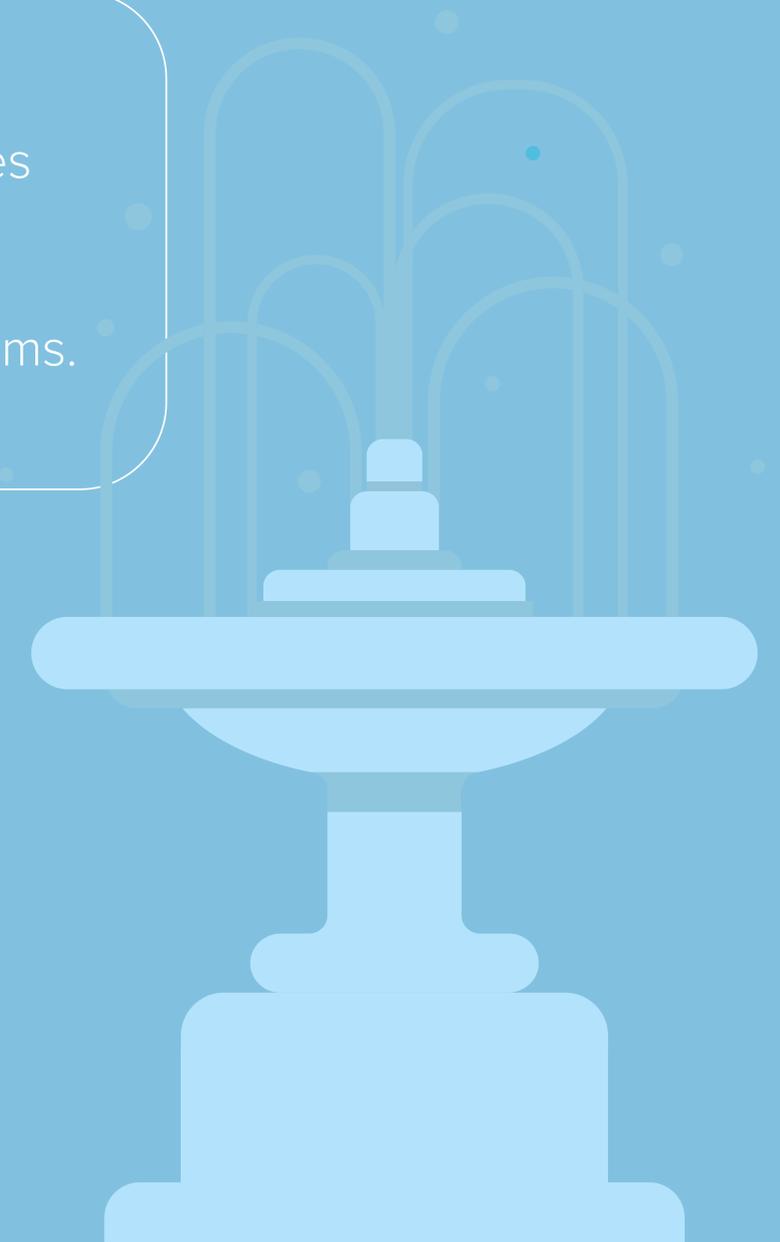
Delivered by Karna people onsite.

Lunch and learn sessions included

- Mindfulness
- Nutrition
- Mentoring and coaching

Volunteering

- Forktree planting
- Clean up at Taoundi Aboriginal College
- Fare Share



ZEN people

Diversity and Inclusion

We are deeply conscious of creating an environment where all can flourish at ZEN, promoting gender equality and social equity as key components to our social foundation. We have begun implementing Diversity and Inclusion initiatives which will help drive positive engagement and retention, signaling to current and potential ZEN people that we want all people to be able to thrive here. Our inaugural Diversity and Inclusion Survey found an inclusion score of 89% from a participation rate of 92%.

Survey responses highlighted the people-first culture at ZEN with almost everybody indicating they could be themselves and feel respected at work. The majority of people felt they could voice contrary opinions without consequences and social events were praised.

Women did express less positive responses on all factors of inclusion than the overall ZEN score. Limited diversity at a leadership level and inclusion in decision making were highlighted. Similar to the employee engagement survey, responses indicated a lack of focus on growth and development, training, and career opportunities.

	ZEN	<u>Global Industry</u> *	<u>Australian Industry</u>	<u>Origin</u>	<u>AGL</u>
Percentage of workforce Female	34%	23%	39%	40%	35%
Female Senior Leaders	27%	18%	32%	40.8%	35%
Engagement (all staff)	89%	n/a	n/a	68%	57%

**Note that this report was published in 2019 and has not been revised. Signatory to the Equal By 30 Initiative.*

ZEN people

ZEN-A

Our major initiative has been the establishment of ZEN-A, ZEN Energy's women's network. ZEN-A was formed to give women a place to discuss issues relevant to them, inspire them to be leaders and to provide a framework for equality within ZEN. ZEN-A was launched on the 31 January including all women in ZEN. ZEN-A is chaired by board member Paula Conboy and organised by ZEN's General Manager of Brand and Marketing, Emily Kucukalic and ZEN's Head of Structured Capital Products, Lara Reid.

ZEN-A focuses on initiatives that will provide lasting benefit to equality within ZEN and on training and networking events for the ZEN women and the broader group of ZEN team members.

ZEN-A continues to review our representation compared to global, industry and peers in our industry.

Equal by 30 Initiative

Driven by ZEN-A, we have become the first Australian headquartered electricity retailer signatory to the global Equal by 30 Initiative. As a signatory, we will adhere to a set of private sector principles. These are:

1. We aim to lead by example, integrating equality principles into our organisation and policies, and will step up our efforts to promote gender diversity activities, in areas of recruitment and career advancement in particular.
2. We pledge to highlight and support women, and close the gender gap, by promoting actions in our business.
3. We will provide leadership, and share our experiences and lessons learned on gender diversity programming and initiatives.
4. We recognise the importance of reporting on progress and will support efforts to improve the collection of gender disaggregated data so that we can and report on our progress in a transparent, open manner.



ZEN-A
WOMEN'S NETWORK

ZEN people

As part of signing up we've also made our own additional commitments.

Commitments	Expected outcomes	Alignment with Equal by 30 private sector principles
1. Create an internal program that will support women within ZEN with a view to assess and endorse career enhancement opportunities.	<ul style="list-style-type: none"> ZEN women represented at key industry forums – such as the Australian Government's Women in Energy and Climate Symposium and the CEC's Women in Renewables Program. Regular opportunities afforded to women in ZEN to meet and share experiences with leaders from across our industry and beyond. Support at least two annual programs of ZEN women into specific industry appropriate programs - determine programs and process for selection. 	1, 2, 3, 4
2. Aim for gender balance that reflects a goal to reach 45% by the end of 2025 and 50% by 2030. Include full gender pay review for equivalent roles and alignment by June 2024.	<ul style="list-style-type: none"> Revised job descriptions – aimed to attract more female applicants. Share data with teams on candidate pool sample that reflects relevant population. Complete pay review and adjust as required. 	1, 2, 4
3. Support return to work practices by delivering a revised parental policy in line with industry best practice, to have in place by June 2024.	<ul style="list-style-type: none"> Parental policy to reflect industry best practice. 	1, 3
4. Expand female representation at the leadership level.*	<ul style="list-style-type: none"> Count and publish leadership data. Establish mentoring program to build leadership talent pool. Ensure talent pool reviewed for every new leadership/senior role. 	1, 2
5. Inspire next generation of women to join ZEN and our industry.	<ul style="list-style-type: none"> Actively engage with industry programs. Promote internal and external mentoring program to engage and inspire next generation. 	1

* ZEN-A would ultimately like to expand female representation on ZEN's board and acknowledges that, as a private company, board representation is rightfully largely representative of shareholdings. For this reason, we are opting to not explicitly state it as a goal, and to acknowledge, that should ZEN become a public company, we will aspire to a more diverse board representation.

We are continuing to progress against our previous commitment to develop and implement ZEN's full diversity and inclusion policy and commitments by the end of 2023.

ZEN people

International Woman's Day

ZEN-A hosted its first International Women's Day event at ZEN and members of ZEN-A attended the Australian Government's Department of Climate Change, Energy, the Environment and Water's inaugural Women in Energy Climate Symposium hosted by the Hon Chris Bowen MP, Minister for Climate Change and Energy.

Throughout the year, ZEN-A hosted seminars focused on forging a career in the energy industry, including guest speakers from BHP, BP and ZEN Non-Executive Director, Paula Conboy. ZEN-A also hosted free training for all ZEN employees in building a personal brand and public speaking.

ZEN-A mentoring program

ZEN-A launched a formal mentoring program where members were invited to self-select and join one of two groups hosted by either ZEN Non-Executive Director, Paula Conboy or Strategic Partnership Manager, Marie Pavlik. So far, 15 women have joined the mentoring program with a number expressing a desire to join later in the year. Each mentoring group meets monthly to engage in training, discussions and supporting each other.

Revised parental leave policy

ZEN-A researched, proposed, and received ratification for a revised parental leave provision. Changes include:

1. Parental leave increased to a best practice entitlement of 18 weeks paid parental leave,
2. Eligibility from six months of employment, in line with the end of the probation period,
3. Parental leave is now extended to include partners if they become a caregiver from 12 months of birth or adoption.



Left to Right – Clean Energy Council's, Director Workforce Development, Dr Anita Talberg, ZEN's GM of Brand and Marketing, Emily Kucukalic, First Nation's Clean Energy Network Karrina Nolan, The Hon Chris Bowen MP, Minister for Climate Change and Energy and ZEN's Head of Structured Capital Products, Lara Reid.

Work Health and Safety

Work Health and Safety (WHS) is managed through Bi-Monthly WHS Committee meetings, with all agenda and meeting minutes, centrally located and shared in our ZEN Integrated Management System.

In FY23 we updated our suite of WHS reporting and policies following an all-staff consultation. This included updating the WHS Objectives and Targets, improvements to the reporting dashboard, inclusion of psychological health and wellbeing in the WHS Policy and Management Plan, and updating policies in line with new workplace sexual harassment laws from March 2023. The focus on psychological health and wellbeing saw seven ZEN people undertake mental health first aid training.

In line with our asset development journey, we have developed a ZEN Journey Management Process which includes a Journey Management Procedure, Vehicle Prestart and Journey Management Checklist and Travel and Journey Risk Assessment. Our Construction Manager is now part of the WHS Committee and contractors and suppliers are required to demonstrate commitment to proactively preventing safety issues for workers and complying with all relevant occupational health and safety laws when they agree to our Supplier Code of Conduct.



Reconciliation Action Plan

In May 2023, ZEN Energy launched its first Reconciliation Action Plan (RAP) following the formation of an internal RAP Working Group and endorsement from Reconciliation Australia. In our RAP, Anthony Garnaut (CEO) stated our goals in undertaking reconciliation :

“Whilst we are early in our Reconciliation journey, we look forward to using our 12-month Reflect period to build a foundation from which we can leverage our sphere of influence to promote positive change. For us, this starts with building the cultural awareness and competency of our organisation, along with establishing sustainable and targeted relationships with First Nations partners based on trust and a commitment to shared value.”

To assist with the development and implementation of our RAP, we engaged First Nations consultancy Larkin Consulting. Owned and operated by Kokatha man Tim Larkin, Larkin Consulting provided expert advice and a First Nations voice throughout the development of our RAP and continues to support our broader engagement activities with First Nations peoples and communities.

Following the launch of our RAP in May 2023, we have focussed on establishing the structures to enable our RAP as well as initial internal cultural awareness and participation events.

We have established two governance groups to ensure we achieve the goals of our RAP. Firstly, our RAP working group is focussed on the implementation of our RAP actions and deliverables and consists of staff from across the business, as well as an external First Nations representative Karina Lester. Ms Lester is a Yankunytjatjara woman from the Anangu Pitjantjatjara Yankunytjatjara Lands (APY Lands) in the Far Northwest of South Australia. In addition to working as an Anangu Interpreter and Translator for Western Desert Language, she is the Chairperson of Yankunytjatjara Native Title Aboriginal Corporation and is a leader across a range of other important community activities. The RAP Working Group provides progress updates to the Executive group as well as the broader ZEN workforce.



Artist acknowledgement ZEN Energy's Journey, Brooke Sutton

Reconciliation Action Plan

Alongside the RAP Working Group, we have established a Community Partnerships Committee, which aims to position ZEN Energy as an industry leader in its First Nations engagement practices in the renewable energy sector. This includes the development of strategic relationships and partnerships with Traditional Owners and industry bodies that deliver on community aspirations and further ZEN Energy’s RAP objectives. This subcommittee consists of members from the ZEN Board and Executive team along with an external First Nations representative, Eddie Fry. Mr Fry is an experienced and well-respected leader in the Aboriginal Affairs sector and is currently the Chairperson of Indigenous Business Australia, having formally chaired the Indigenous Land and Sea Corporation. Mr Fry brings high level strategic advice and experience in First Nations economic development to our efforts.

Internally, we have worked to raise the baseline level of cultural awareness and understanding across ZEN people, participating in cultural awareness training sessions with Traditional Owner organisations in Adelaide and Melbourne, encouraging participation in National Reconciliation Week and NAIDOC Week events, as well as holding a NAIDOC Week Lunch and Learn session with Aboriginal Community Leader, Advocate and Lawyer, Ms Khatija Thomas. We have also completed a review of key ZEN organisational policies to ensure they are culturally appropriate and promote cultural safety.

We are also working to build relationships with First Nations groups and organisations. We have begun to engage with the First Nations renewable energy groups and Traditional Owners for each of our potential asset development sites, looking for opportunities to build partnerships that deliver shared value. In the procurement space, we have engaged to provide our office supplies, and have engaged First Nations caterers Mabu Mabu for ZEN events where possible. We are currently reviewing our asset development procurement processes with the aim of developing an Indigenous Procurement Policy to drive opportunities for First Nations businesses and employment where possible.



See our Reconciliation Action Plan here

Reconciliation Action Plan

One of the highlights of the year was ZEN's volunteering day with Tauondi Aboriginal College, on Kurna Country, where ZEN people teamed up with members of MAC Trade Services and the SA Government Department of Energy and Mining to assist in the maintenance of the property, building a fire pit and yarning circle, whilst learning more about First Nations cultures. Tauondi is one of the oldest Aboriginal community-controlled organisations in SA and provides a range of critical education and social services from its property in Port Adelaide. So much was achieved in just one day, which shows how powerful it is to join hands and connect with nature and the community.

We are committed to fully implementing our Reflect RAP by May 2024 and developing an 'Innovate' RAP at the completion of our Reflect RAP and reporting on our results and new priorities and commitments in our FY24 Sustainability Report.



Tauondi Aboriginal College has been supporting students with a culturally rich and helpful learning environment and providing positive outcomes through high quality training and employment services, since 1973.

Community

We held three Volunteer Days in FY23. In addition to our day at Tauondi College, we volunteered with:

- The Forktree Project
 - The Forktree Project is a registered charity initiated by Tim Jarvis AM, restoring tens of thousands of native trees and shrubs on the Forktree property. The ZEN and Salesforce teams planted approximately 300 trees, contributing to bringing back native animals, insects, and birds, and sequestering tens of thousands of tonnes of carbon.
- FareShare
 - FareShare is a charity which has been cooking free, nutritious meals for people doing it tough since 2001. Each year, FareShare transforms rescued, donated and homegrown food into millions of healthy meals that feed dignity and wellbeing for Australians experiencing hardship. Working with FareShare, a team of 15 ZEN employees worked to:
 - Chop 50kg of green beans.
 - Pack ~1200 quiches.
 - Pack ~480 bags of pasta.
 - Pack ~400 serves of stew.



THE FORKTREE PROJECT

ZEN ENERGY AND SALESFORCE VOLUNTEER DAY



The Forktree Project is restoring tens of thousands of native trees and shrubs in South Australia's beautiful Fleurieu Peninsula.

Community

Another highlight for our community engagement was our platinum sponsorship of the March 2023 **Sustainability Leaders' Summit in Melbourne**. The summit gathered more than 500 leaders from Australian and global organisations. Attendees heard from our CEO about the importance of mandatory targets in achieving renewable energy goals and engaged with our voting booth activation space.

We invited attendees to cast their votes across a range of six actions that Australia could take to improve our chances of meeting our carbon emissions reduction targets. Close to 20% of attendees voted and a tree was planted at the Forktree project for every vote that was cast (250 trees were committed).

70% of those who voted thought that raising the Renewable Energy Target to 82% renewables by 2030 was the most or second most critical issue.

56% of those who voted thought that Australia committing to a 1.5°C science-based emissions trajectory was the most or second most prominent issue that Australia should address.

Using a preferential voting methodology, increasing the RET was the most popular vote, achieving 54% of votes. ZEN published a white paper detailing the responses and shared it with attendees and our community stakeholders.



[View the White Paper here](#)

Customers

ZEN continued to grow our customer base in FY23, including expanding our existing contracts through adding new locations and upgrading customers to 100% renewable energy, as we have committed to do. Early engagement with new sustainability customers continued and we look forward to announcing a number of new customers in FY24 with a shared purpose to move to a zero-carbon world.

Added **Burwood City Council** to the **SSROC (Southern Sydney Regional Organisation of Councils)** agreement.

Burwood City Council supports a population of more than 30,000 and has joined with 100% renewable energy.

Hosted two strategic market briefing sessions with our **SSROC** members to keep them engaged throughout the market volatility and keep them assured of supply and price stability.

Upgraded our existing hardware customer and fellow SBTi partner, **Taylor's Wines**, to 100% renewable energy.

Brought our existing hardware customer, medical equipment manufacturer **Sarstedt** onto 100% renewable energy to enable them to continue to export their products into the US and EU with no carbon impost.

Brought on **CSIRO** South Australia as a customer, complementing our existing arrangement to supply to CSIRO in New South Wales, Victoria and the ACT.

The Foodland group is both a multi-location and multi-entire operation that works in consultation with our Head Office. The ZEN customer service team have embraced this technicality to ensure all parties are kept fully informed of historical performance and any upcoming changes.

Steve Xenikoudis, Chief Operating Officer – Foodland.

Customers

We also continued to build on our record of excellent customer service.

- We completed 11 project assessments with SSROC to identify opportunities for behind-the-meter installations to reduce energy consumption and supply costs.
- We maintained our commitment to providing excellent customer service.
- We continued our track record of zero complaints being formally lodged by our customers since 2020. ZEN has a structured complaint process that ensures our customer and client teams engage early on issues, ensuring that they are rectified before they escalate to a formal complaint.
- Both our South Australian Government and CSIRO contracts have financial penalties attached to our inability to adhere to contractual KPIs. ZEN has yet to receive a penalty from either customer over the entire contract period. This speaks to both the strength of our relationship and our team's focus on providing the highest level customer service.



Supply Chain

Protecting most at-risk communities is key to maintaining an acceptable social foundation. ZEN Energy is aware that globally, renewable energy developments are at risk of inadvertently using forced labour within their supply chains, particularly from the import of **solar panels and batteries**.

We have already aligned our polysilicon procurement with the ban enforced by the United States Customs and Border Protection of silicon-based products from certain areas and companies, which goes beyond Australian legislative requirements. On top of this, we have:

- Engaged an external auditor to assess a high-risk supplier facility,
- Engaged an external provider to perform verification of origin for polysilicon products, and
- Adopted a continuous improvement approach as laid out in the Modern Slavery Act, and applied an initial improved supplier assessment to a supplier in a high-risk sector.

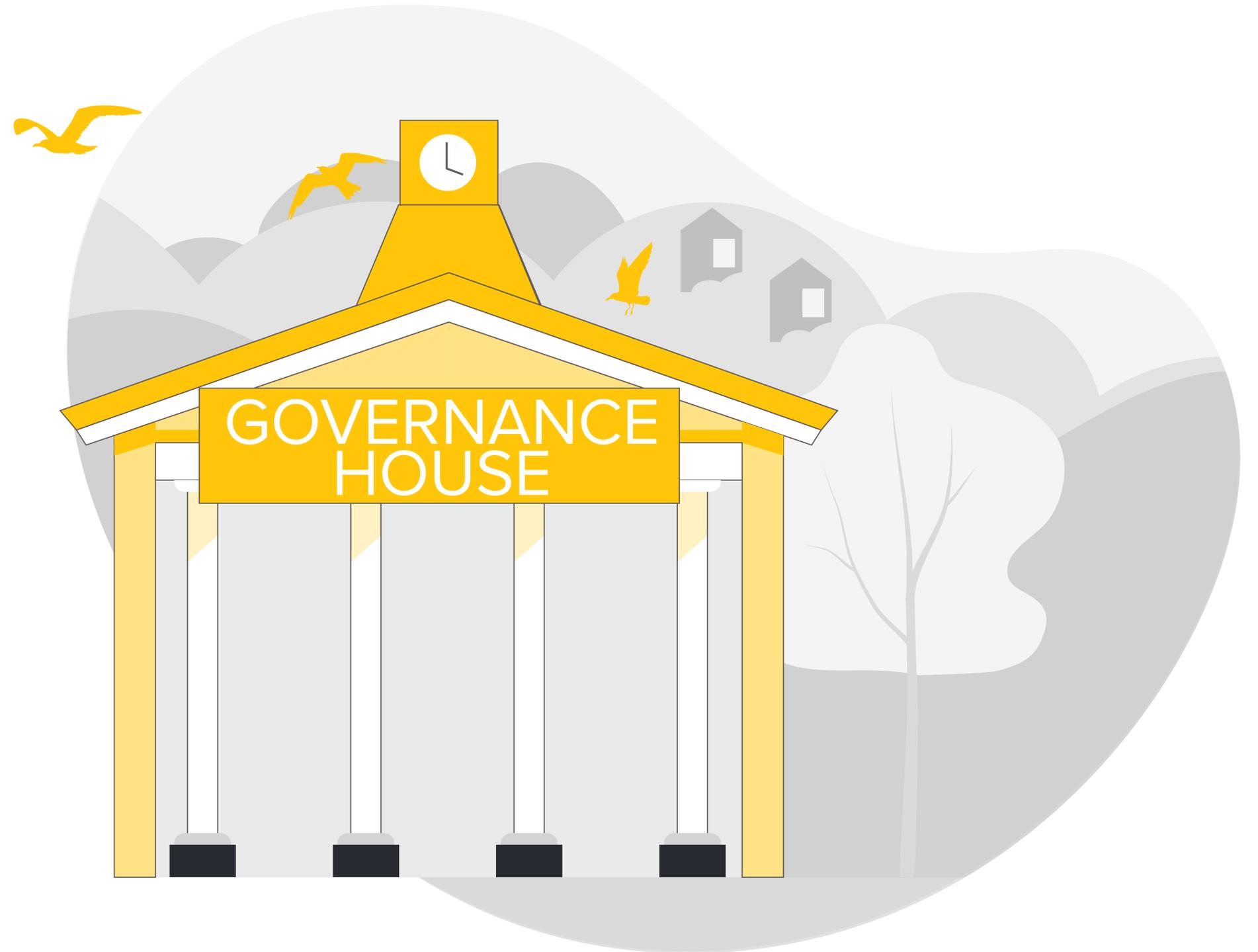
Whilst we can never be certain of the exact journey of raw materials through the supply chain, this will act as another due diligence item to give more confidence that the silicon in the panels we procure comes from where we think it comes from.

To further support our supply chain integrity, we have updated our Whistleblower Policy and process to provide more reporting options, including to an external Whistleblower Hotline Provider, and provided more detail around the reporting, protection, confidentiality, and report handling and investigation processes.

As we continue to progress our renewable project development processes, we will continue to search for opportunities to reduce potential negative impacts of our projects on people and planet. We will ensure all appropriate internal policies are in place and begin developing and reporting on target metrics to demonstrate our commitment and progress.

05. Governance

- Highlights
- Governance structures
- Risk
- Systems, policy and accreditation updates



Highlights

We have implemented an initial Enterprise Risk Framework with Board approval, documentation and accompanying processes.

We updated our Whistleblower Policy and process to include an external Whistleblower Hotline.

We received the triple standard ten year milestone certification to the three standards ISO 9001, 14001, 45001. We have been compliant since 2012.

We achieved accreditation to ISO 27001 Information Security Management Systems Standard.



Governance structures

As we lean into an inclusive and distributive embedded economy, we need to constantly shore up our governance structures to monitor and manage our activities. Over the last year, we have revamped our governance structures and processes to provide greater oversight of, and response to, risks and issues across the business.

As a private company, board representation is largely representative of shareholdings. The nomination and selection process for independent Board members involves a comprehensive process incorporating and recognising any skills gaps at the board level, engaging within our extended community, a structured interview process, engagement with current board members and our executive leaders. The Chair and the CEO will seek to drive a program of work to appoint additional Board Directors to complement the growth trajectory of ZEN and to facilitate succession planning - one that is befitting of a maturing and high growth business.

ZEN has benefited immensely from the strategic insights leadership, experiences and networks of its Board of Directors. The Board composition as of 30 June 2023 is:



Raymond Spencer, Our Chair, has experience in leading organisations and achieving a high performing initial public offering, and is the founding partner of RSVP Ventures which oversees an investment portfolio of more than a dozen companies in the United States and Australia.



Michael Lane specialises in providing strategic management and tax advice to private businesses and their investment activities.

Chair - Audit and Finance Committee

Purpose - Review and recommend to the Board to endorse the annual financial statements. Review and ensure integrity in reconciling the statutory and management financial statements.



Professor Ross Garnaut has played a critical role in transforming the Australian policy and business landscapes in the past 40 years. He is a leading voice in the national conversation on energy transition and economic reform.

Chair - Energy and Carbon Markets Committee

Purpose - To facilitate scaling of external advocacy and partnerships, including beyond the scope of just the electricity markets.



Paula Conboy has deep experience in the energy sectors in Australia, Canada, Singapore and the United States spanning 25 years and is an expert in leadership, corporate governance, and leading transformational change.

Chair - People and Culture Committee

Purpose - Review and make recommendations to the board on the remuneration and benefits strategy of ZEN and initiatives to support developing a thriving and inclusive organisational culture.



Norman Pater, established the Carbon Farming Foundation and contributed to numerous private, public, listed and not-for-profit boards over the last 30+ years.

Chair - Risk and Governance Committee

Purpose - Note and highlight any significant issues from the regular renewable electricity portfolio risk reports shared by the Wholesale Risk Management Committee and via the monthly Performance Report.

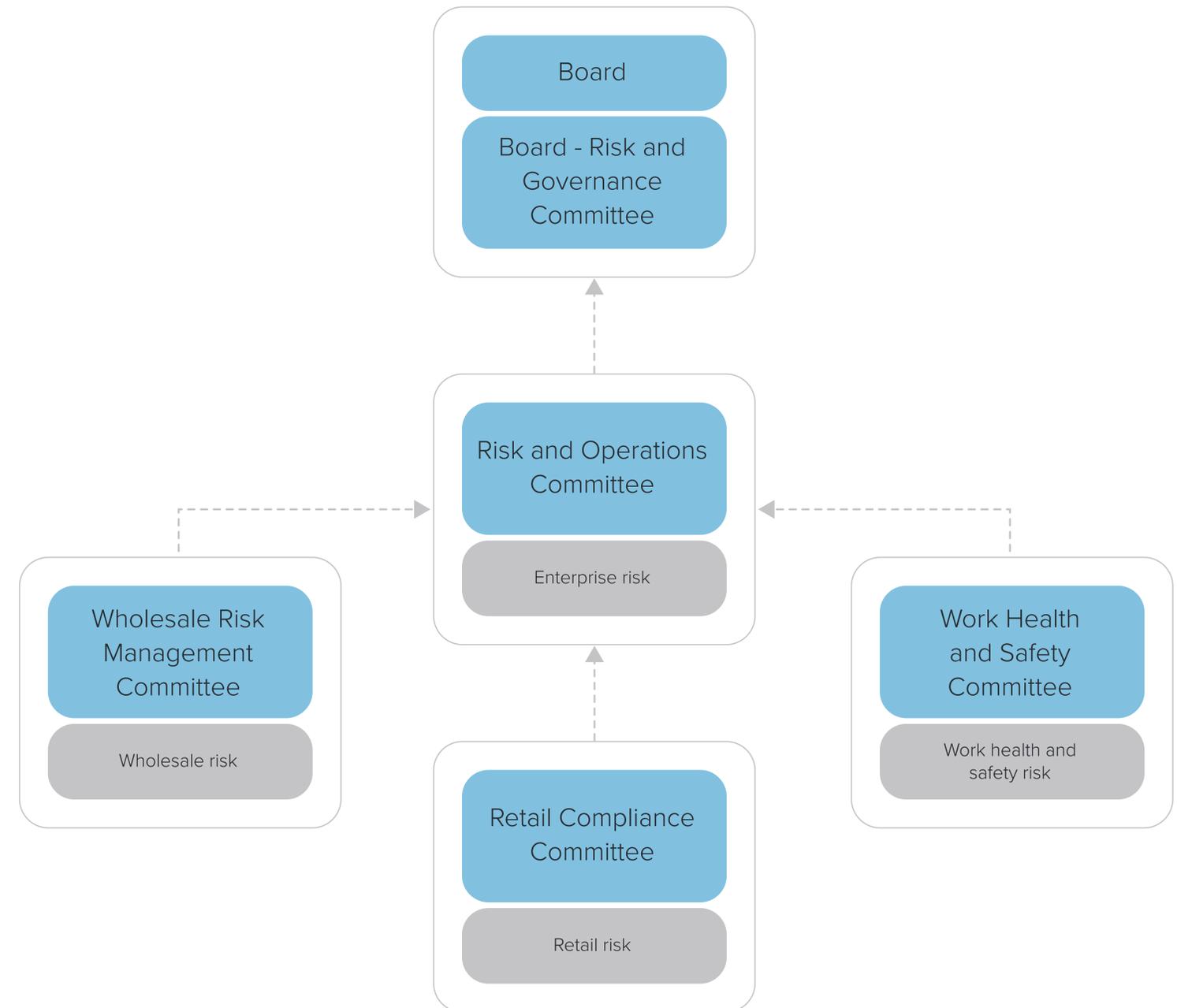
Risk

In line with our previous commitment, we have developed an initial enterprise risk framework, with a Board-approved Risk Appetite Statement that sets our risk appetite across all areas of the business. In conjunction with the statement, we have developed and applied a risk impact assessment matrix to projects, and are working to develop and implement an enterprise risk register. At a management level, enterprise risks are overseen and managed through our Risk & Operations Committee with more focused committees managing wholesale, retail and work health and safety risks.

With wholesale risk, a major component of our enterprise risk profile, we have continued to mature our Wholesale Risk Management processes. In FY23, the Wholesale Risk Management Committee developed additional metrics that enhance our risk reporting allowing more nuanced views, and improved management of our portfolio risk positions.

With the development of new Sustainability Disclosure Standards and mandatory climate-related financial disclosures, we are preparing our climate-and sustainability-related risk reporting processes to meet these requirements as details become available. Additionally, we are exploring broader enterprise risk reporting in line with the IFRS Integrated Reporting Framework to further improve our reporting and provide a comprehensive report that clearly communicates how ZEN creates value for people and the planet. We expect to be able to provide significant progress against developing these frameworks in our 2024 report.

ZEN Risk Process



Systems, policy and accreditation updates

Cybersecurity

Over FY23, we continued to work towards achieving accreditation against the ISO standard for Information Security Management Systems. We received our Stage 1 Audit report in May FY23, to confirm readiness for the Stage 2 (certification) Audit. We achieved accreditation in July 2023, with four minor non-conformances, with corrective actions to be completed by 31 December 2023. We will report on this progress in our next report.

We have worked to build our preparedness in the event of a disaster or significant business interruption, including a ransomware attack. In FY23, we conducted a ransomware desktop exercise and multiple disaster recovery tests to identify and resolve issues and develop response documentation.

ISO Accreditation

ZEN has also attained ISO Certification in Quality, Environment and WHS.

Being certified to this standard shows ZEN’s commitment to due diligence and process across the business. ISO Certification establishes credibility and trust among consumers, stakeholders, clients, and other business partners. Our ISO certification guarantees we meet the global standards for our business operations and enables us to increase control over our business procedures; it drives good practices for our people. Standards are developed from best practice principles resulting in using the best ways of working to achieve our business objectives.

ZEN undergoes Internal and External audits on a yearly basis to ensure our Integrated Management system is still effective and that our processes are aligned to current business.

In November 2022, we received triple standard ten year milestone certification to the three standards ISO 9001 (Quality), 14001 (Environment), 45001 (WHS) over the last ten years, since 2012.



Whistleblower policy update

We have updated our Whistleblower Policy and process to provide more reporting options, including to an external Whistleblower Hotline provider, and provided more detail around the reporting, protection, confidentiality, and report handling and investigation processes.

The updated Whistleblower Policy and process explicitly applies to all suppliers and allows employees of suppliers to report to our external independent service provider who will assess reports and work with reporters to obtain as much information as possible whilst allowing reporters to remain anonymous and information to remain confidential.

THE ZENENERGY SPEAK UP HOTLINE

ZEN Energy is committed to fostering an open, honest, and transparent culture that encourages Speaking Up. A culture where employees, contractors, directors, third parties, and partners feel safe to raise concerns without fear of repercussions. We want to listen and hear about issues as it allows us to address these concerns. This helps us become a stronger organisation, which aligns with our key strategic priority and our values.

We assure you that any report is taken seriously.

WHAT CAN I REPORT?

To receive protection, as a Whistleblower under the Whistleblower legislation, and under the ZEN Energy Speak Up Hotline, the conduct being reported must meet at least one of the following:

- Be bullying, sexual harassment, and unethical conduct
- Be a danger to the public or fellow employees and contractors
- Be illegal conduct, such as theft
- Contravene ZEN's policies
- Be a breach of the Fair Work Act, National Employment Standards or relevant Modern Awards

WHAT YOU NEED TO DO TO RAISE A CONCERN?

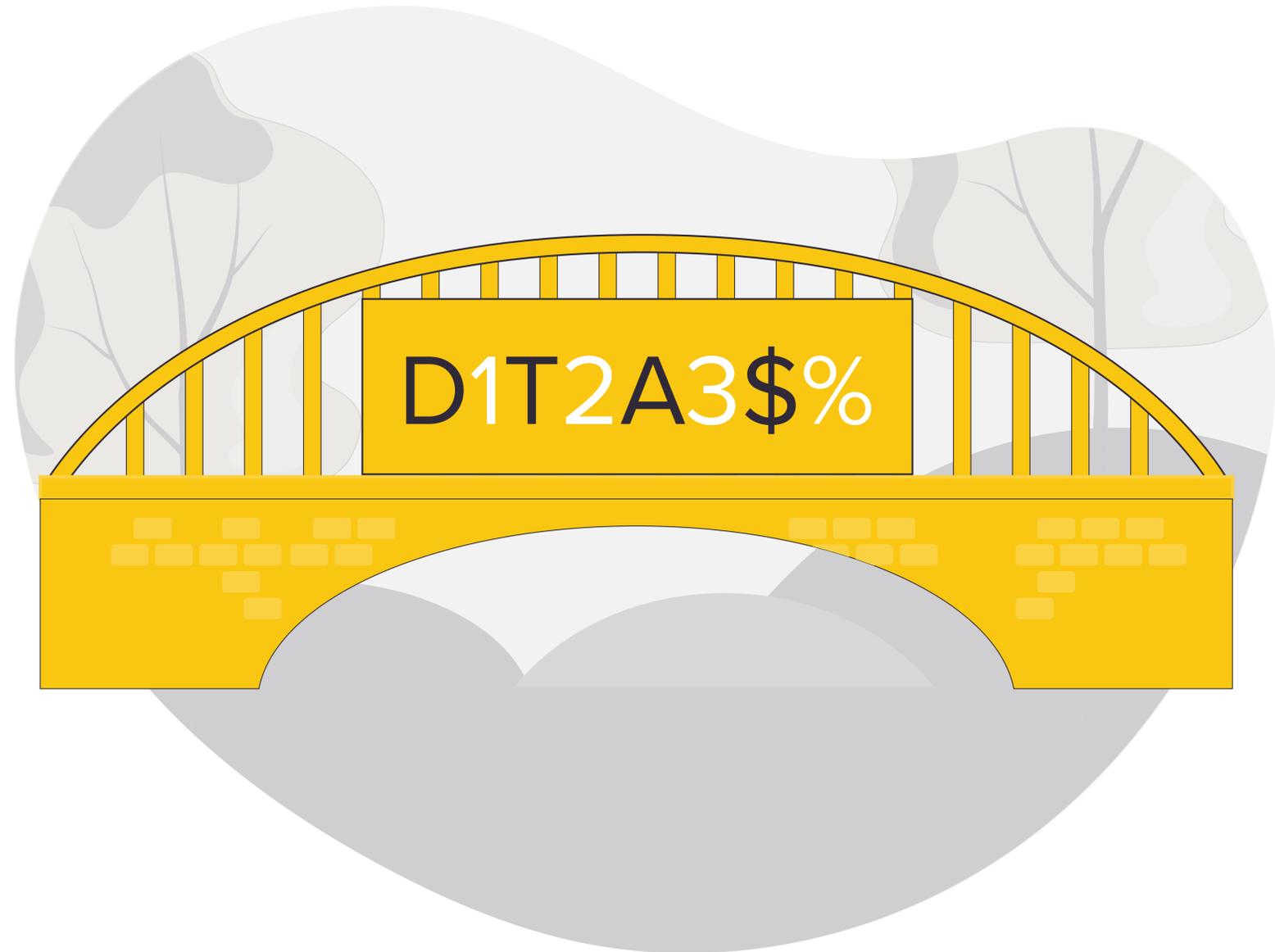
- You can choose to report via the speakup hotline or your manager.
- Names of the people involved.
- Review ZEN Speak Up policy to understand your level of protection, anonymity & investigation process.
- The nature of the improper conduct, and when it has occurred or is likely to occur.
- Any materials to support (e.g., documents, emails, potential witnesses).

HOW CAN YOU REPORT IT?

- Online Report at www.zenenergy.com.au/whistleblower
- Verbal Report
- speakup@coreintegrity.com.au
- 1800 324 775
- PO Box 730 Milsons Point 1565

06. Our Data

- Materiality topic definitions
- Task Force on Climate-related Disclosures
- Sustainability Accounting Standards Board Index
- Key Global Reporting Initiative Standards
- UN Sustainable Development Goals
- 2022 ESG Report Addendum



Materiality topic definitions

Area	Material issue	Definition
Environmental	Climate change and carbon emissions	Encompasses the greenhouse gas emissions resulting from our own operations (Scope 1), our electricity usage (Scope 2) and from our value chain (Scope 3), in accordance with GHG Protocol definitions and methodology. Considering the scale of these emissions, we have particularly focussed on Scope 3 Category 3 - sold electricity emissions as these vastly outweigh the amount of our Scope 1 and 2 emissions.
Environmental	Waste	Management of waste resulting from asset development activities, including application of circular economy concepts and principles.
Social	Employee engagement and development	The management of our people, engaging them in our culture, developing their skills and capabilities and managing risks relating to skilled labour scarcity, including measures of retention, recruitment, development and training.
Social	Customer experiences	The experience of our customers who purchase renewable energy from us to ensure a high quality, smooth renewable transition for all.
Social	Modern slavery and supply chain standards	The management of human rights issues in the supply chain, in particularly modern slavery, and includes but is not limited to child labour, forced/bonded labour, safe working environment, and harsh or inhumane treatment of workers.
Social	Diversity	The provision of equal opportunity, and an inclusive workplace that combats discrimination and unfairness at all levels.
Social	Pay	The provision of fair and equitable compensation to our people within each respective category, and across categories.
Social	Indigenous engagement	Engagement with, and support of, Indigenous communities within Australia who we recognise as the first peoples of Australia.
Social	Health and safety	Safe working environment and a workers' right to health and no harm.
Governance	Privacy and data security	Data governance practices including how we collect, use, manage and protect data to ensure the safe and secure use and maintenance of customers' personal data.
Governance	Working ethically	Ethical working focuses on general professional ethics such as taxation, accounting, bribery, corruption and anti-competitive practices.
Governance	Enterprise risk framework	A systematic approach to identifying, assessing, addressing and reporting risk through all levels of the organisation.
Governance	Best practice management systems	Management systems across all functions that meet best practice.

Task Force on Climate-related Financial Disclosures

Area	Recommended disclosure	Report Section
Governance	Describe the board's oversight of climate-related risks and opportunities.	The Board has oversight of the opportunities resulting from generating, procuring, and selling renewable electricity, and the risks of climate change to the electricity market and of the transition slowing or stalling.
	Describe management's role in assessing and managing climate-related risks and opportunities.	The executive Risk & Operations Committee, Wholesale Risk Management Committee, Investment Committee and Project Steering Committee all manage various climate-related risks and opportunities as part of their functions.
	Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	We separate climate-related risks into physical and transition risks. Physical climate-related risks can impact our electricity portfolio, both in sourcing and selling renewable electricity. Given our purpose, our major transition climate-related risk is a lack of ambition to drive emissions reduction and renewable energy in line with 1.5°C.
Strategy	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Our strategy revolves around taking full advantage of climate-related transition opportunities whilst managing the impacts of physical climate impacts through our wholesale portfolio, customer and asset development strategies.
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	As an organisation looking to assist the transition to a zero-carbon world, we are resilient to transition climate-related risks in a 2°C or lower scenario.

Task Force on Climate-related Financial Disclosures

Area	Recommended disclosure	Report Section
Risk Management	Describe the organisation's processes for identifying and assessing climate-related risks.	Climate-related risks are managed through our enterprise risk framework, with oversight from our Board and Executive committees.
	Describe the organisation's processes for managing climate-related risks.	We assess our climate-related risks through tracking our emissions against our science-based emissions reduction targets.
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	For more information, see Environmental.
Metrics and Targets	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	<p>Scope 1 emissions – 1 tonne CO₂-e</p> <p>Scope 2 emissions – 0 tonnes CO₂-e (market-based)</p> <p>Scope 3 sold electricity emissions - 536,624 tonnes CO₂-e (market-based)</p> <p>For more information including a detailed description of the emissions accounting methodology used, see Environmental.</p>

Sustainability Accounting Standards Board Index

SASB Topic	Code	Accounting Metric	2021	2022	Notes
Greenhouse Gas Emissions & Energy Resource Planning	IF-EU-110a.1	1) Gross global Scope 1 emissions	3 tCO ₂ -e	1 tCO ₂ -e	The organisational control approach is used to consolidate ZEN's emissions.
		2) Percentage Scope 1 emissions covered under emissions-limiting regulations	0%	0%	No direct emissions under the Safeguard Mechanism.
		3) Percentage Scope 1 emissions covered under emissions-reporting regulations	0%	0%	No emissions under emissions-reporting regulations.
	IF-EU-110a.2	GHG emissions associated with power deliveries	526,043 tCO ₂ -e (market-based) 295,542 t CO ₂ -e (location-based)	536,624 tCO ₂ -e (market-based) 410,684 t CO ₂ -e (location-based)	See notes below
<p>Notes on emissions calculations</p> <p>Our electricity emissions (Scope 2 and Scope 3 sold electricity) are calculated using the market-based method for electricity emissions, as detailed by the Greenhouse Gas Protocol, which is aligned with the 'Electric Power Sector Protocol for the Voluntary Reporting Program' required by SASB.</p> <p>Using the market-based method, the number of large-scale generation certificates surrendered against the calendar year to the Clean Energy Regulator was subtracted from the amount of sold electricity as zero-emissions electricity. Our sold electricity volume is determined by the Australian Energy Market Operator from their SETCPDATA table which "shows meter settlement data for each connection point. This is the key view for retailers to verify energy charges."</p> <p>The remaining amount of electricity is assigned a residual emissions factor calculated using the Scope 2 and 3 national emissions factor published in the National Greenhouse Accounts Factors by the Commonwealth Department of Climate Change, Energy the Environment and Water, adjusted to remove the impact of the Renewable Power Percentage.</p> <p>The amount of sold electricity is then multiplied by the residual emissions factor to calculate the GHG emissions associated with power deliveries.</p> <p>The numbers used in the calculations for 2022 are as follows:</p> <p>Market-based method</p> <p>Wholesale electricity purchased to sell to customers – 925,845.97 MWh LGCs surrendered (by ZEN or by ZEN customers) – 358,836 LGCs 2022 Australian Emissions Factor = 0.77 t CO₂-e / MWh Residual emissions factor to remove the impact of the RET (the amount of LGCs that we know for sure have been surrendered) – 0.77/(1-18.64% (the 2022 RPP)) = 0.94641 t CO₂-e / MWh Market-based emissions = (925,845.97 MWh - 358,836 LGCs) * 0.94641 = 536,624 t CO₂-e</p>					

Sustainability Accounting Standards Board Index

SASB Topic	Code	Accounting Metric	2021	2022	Notes
		<p>Location-based method</p> <p>For transparency, we also report our Scope 2 emissions using the location-based method, where each State, Territory or grid in Australia is assigned a separate emissions factor and multiplied by sold electricity in each jurisdiction. In this method, renewable energy purchases are ignored and are split up evenly amongst all electricity consumers in each jurisdiction.</p> <p>Wholesale electricity purchased to sell to customers in NSW - 155,581 MWh</p> <p>Wholesale electricity purchased to sell to customers in QLD - 72 MWh</p> <p>Wholesale electricity purchased to sell to customers in SA - 713,332 MWh</p> <p>Wholesale electricity purchased to sell to customers in VIC - 56,861 MWh</p> <p>2022 NSW Emissions Factor = 0.79 t CO₂-e / MWh</p> <p>2022 QLD Emissions Factor = 0.88 t CO₂-e / MWh</p> <p>2022 SA Emissions Factor = 0.33 t CO₂-e / MWh</p> <p>2022 VIC Emissions Factor = 0.92 t CO₂-e / MWh</p> <p>Location-based emissions = (155,581 MWh * 0.79 t CO₂-e / MWh) + (72 MWh * 0.88 t CO₂-e / MWh) + (713,332 MWh * 0.33 t CO₂-e / MWh) + (56,861 MWh * 0.92 t CO₂-e / MWh) = 410,684 t CO₂-e</p> <p>Note that due to the reporting cadence of the National Greenhouse Accounts factors there are no explicit emissions factors for calendar year 2021. The 2021 factors go up to the 2018/19 financial year, and then provide a “latest estimate”. Given these factors were published in August 2021, we have assumed that the “latest estimate” factors correspond to the 2019/20 financial year.</p> <p>The 2022 factors no longer include historical figures, and no longer average emissions factors over 3 years. Given that the factors were published in February 2023 and state that “Data are for financial years ending in June” we have assumed that the 2022 factors correspond to the 2021/22 financial year. As a result, we have averaged the “latest estimate” factor from the 2021 factors, and the factor from the 2022 factors to obtain a ‘2021 emissions factor’.</p> <p>Also note that although the National Greenhouse Factors correspond to financial year, we have applied the factors as given to calendar years. Due to the amount of estimations and assumptions going into the factors, it did not seem appropriate to add additional assumptions in averaging factors across financial years to obtain a calendar year emissions factor, particularly given the seasonal nature of electricity grid emissions and the calendar year nature of LGC surrender.</p>			

Sustainability Accounting Standards Board Index

SASB Topic	Code	Accounting Metric	2021	2022	Notes
	IF-EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets.	<p>Our strategy focuses on Scope 3 sold electricity emissions which make up the vast majority of our emissions.</p> <p>In 2022, we increased sold electricity by 24% from 745,373 MWh in 2021 to 925,846 MWh. When using the market-based approach, this resulted in a proportionally smaller increase in emissions of 2% from 526,043 tonnes CO₂-e to 536,624 tonnes CO₂-e. This is because our customers increased their proportion of renewable energy purchased from 27% in 2021 to 39% in 2022. This is reflected in the reduction of our emissions intensity from 0.71 tonnes CO₂-e / MWh in 2021 to 0.58 tonnes CO₂-e / MW in 2022.</p> <p>The major limiting factors and risks to achieving the Scope 3 sold electricity emissions reduction targets are if energy consumers are reluctant to pay for renewable energy certificates, and if insufficient renewable energy generation is built around Australia. ZEN is actively mitigating both of these risks by working directly with consumers and taking an active role in renewable asset creation.</p> <p>For more information, see Environmental.</p>		
	IF-EU-110a.4	1) Number of customers served in markets subject to renewable portfolio standards (RPS)	7,412 “large electricity customers” or 11.7% “market share” as of Q3 2021-22 in the AER retail performance report published on 30 June 2022. However, in the AER retail performance report published on 28 June 2023, we had 83 “large electricity customers” or 0.1% “market share” in Q3 2021-22, likely due to a change in counting methodology.	100 “large electricity customers” or 0.2% “market share” as of Q3 2022-23 in the retail performance report published on 28 June 2023.	As an Australian electricity retailer, ZEN Energy is required to comply with the Australian Renewable Energy Target (RET) scheme. The RET scheme covers all Australian jurisdictions in which ZEN Energy sells energy. This figure covers the number of retail contracts during the reporting period under which ZEN served electricity to customers. Note that there will be multiple meters associated with each retail contract.
		2) Percentage fulfilment of RPS target by market	100% LRET liability fulfilled	100% LRET liability fulfilled	
Air Quality	IF-EU-120a.1	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , (3) particulate matter (PM ₁₀), (4) lead (Pb), and (5) mercury (Hg); percentage of each in or near areas of dense population.	N/A	N/A	ZEN Energy does not own or operate any applicable facilities impacting air quality, and the air emissions of pollutants from mobile sources are immaterial.

Sustainability Accounting Standards Board Index

SASB Topic	Code	Accounting Metric	2021	2022	Notes
Water Management	IF-EU-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	N/A	N/A	ZEN Energy does not own or operate any applicable facilities requiring water management, and ZEN Energy's office water use is immaterial.
	IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	N/A	N/A	
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	N/A	N/A	
Energy Affordability	IF-EU-240a.1	1) Average retail electric rate for residential customers	N/A	N/A	Although we have prototyped a residential electricity product, we do not have a residential product offering.
		2) Average retail electric rate for commercial customers	\$74 / MWh	\$71.73 / MWh	Note this figure is the average weighted electricity price for customers and does not include the mandatory LRET charges and network costs.
		3) Average retail electric rate for industrial customers	N/A	N/A	ZEN Energy did not serve industrial customers during the reporting period.
	IF-EU-240a.2	1) Typical monthly electric bill for residential customers for 500 kWh of electricity delivered per month	N/A	N/A	Although we have prototyped a residential electricity product, we do not have a residential product offering.
		2) Typical monthly electric bill for residential customers for 1,000 kWh of electricity delivered per month	N/A	N/A	
	IF-EU-240a.3	1) Number of residential customer electric disconnections for non-payment	N/A	N/A	
		2) Percentage of residential customers reconnected within 30 days following disconnection for non-payment	N/A	N/A	

Sustainability Accounting Standards Board Index

SASB Topic	Code	Accounting Metric	2021	2022	Notes
	IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory			<p>Major geopolitical events like the war in Ukraine resulted in severe market volatility. Significant coal power plant outages in the Australian market and wet weather affected renewables' output and coal supply. We saw a deep tightening of electricity and gas supply, leading to escalated wholesale prices and, sadly, a number of retailers exiting the market.</p> <p>These extraordinary events resulted in AEMO suspending the market from the 15th of June through to the 24th of June. While these dates were not strictly within this reporting period, the impact was long-lasting, powerful, and felt across our industry.</p> <p>In response, we deliberately minimised active sales and marketing activity, choosing to focus 2023 on shoring up our supply of renewable energy and project pipelines to enable more renewable energy to enter the NEM. For existing customers, our strategy to secure cost-competitive firming renewable PPAs to hedge our customer load continued to reduce ZEN's and therefore, our customer's exposure to the volatile spot market prices.</p>
Coal Ash Management	IF-EU-150a.1	Amount of coal combustion residuals (CCR) generated, percentage recycled	N/A	N/A	ZEN Energy does not own or operate any facilities requiring coal ash management, nor does it have any direct energy offtake contract with coal-based generation.
	IF-EU-150a.2	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	N/A	N/A	
Activity Metrics	IF-EU-000.A	1) Number of residential customers served	N/A	N/A	Although we have prototyped a residential electricity product, we do not have a residential product offering.
		2) Number of commercial customers served	16	20	This figure covers the number of retail contracts during the reporting period under which ZEN served electricity to customers. Note that there will be multiple meters associated with each retail contract.
		3) Number of industrial customers served	N/A	N/A	ZEN Energy did not serve industrial customers during the reporting period.

Sustainability Accounting Standards Board Index

SASB Topic	Code	Accounting Metric	2021	2022	Notes
	IF-EU-000.B	1) Total electricity delivered to residential customers	N/A	N/A	Although we have prototyped a residential electricity product, we do not have a residential product offering.
		2) Total electricity delivered to commercial customers	669,607 MWh	836,284 MWh	Note that these figures applies to calendar years. All of ZEN's electricity in 2021 and 2022 was delivered to commercial customers. This reported figure largely represents 100% of the wholesale electricity purchased, minus losses that occur to give the volume consumed by the customer. This figure is also missing a small amount of consumption from customers whose sites do not have meters that meet the data requirements to be included in this figure. This consumption is still captured by the total wholesale electricity purchased disclosure in IF-EU-000.E.
		3) Total electricity delivered to industrial customers	N/A	N/A	ZEN Energy only had commercial customers during the reporting period.
		4) Total electricity delivered to all other retail customers	N/A	N/A	
		5) Total electricity delivered to wholesale customers	N/A	N/A	
	IF-EU-000.C	Length of transmission and distribution lines	N/A	N/A	ZEN Energy is not a network operator.
	IF-EU-000.D	1) Total electricity generated	N/A	N/A	ZEN Energy did not own or operate any generation during the reporting period.
		2) Percentage electricity generated by major energy source	N/A	N/A	
		3) Percentage electricity generated in regulated markets	N/A	N/A	
	IF-EU-000.E	Total wholesale electricity purchased	745,373 MWh	925,846 MWh	Note this figure applies to calendar years.

Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
Environmental	Climate change and carbon emissions	305-1 Direct (Scope 1) GHG emissions	3 tCO ₂ -e	1 tCO ₂ -e	The organisational control approach is used to consolidate ZEN's emissions. Note the Scope 1 CO ₂ -e calculation includes CO ₂ , CH ₄ and N ₂ O. The emission factors and global warming potentials were sourced from the National Greenhouse Accounts Factors February 2023. ZEN Energy does not have any biogenic emissions.
		305-2 Energy indirect (Scope 2) GHG emissions	Market-based - 34 tCO ₂ -e Location-based - 22 tCO ₂ -e	Market-based - 0 tCO ₂ -e Location-based - 16 tCO ₂ -e	Please see below for notes with a detailed breakdown of our Scope 2 and Scope 3 sold electricity emissions calculations.
		305-3 Other indirect (Scope 3) GHG emissions			ZEN has calculated our Scope 3 sold electricity emissions, as the starting of our Scope 3 emissions account. These emissions should proportionally make up the vast majority of our Scope 3 emissions.
<p>Notes on emissions calculations</p> <p>Our electricity emissions (Scope 2 and Scope 3 sold electricity) are calculated using the market-based method for electricity emissions, as detailed by the Greenhouse Gas Protocol.</p> <p>Using the market-based method, the number of large-scale generation certificates surrendered against the calendar year to the Clean Energy Regulator was subtracted from the amount of sold electricity as zero-emissions electricity. Our sold electricity volume is determined by the Australian Energy Market Operator from their SETCPDATA table which "shows meter settlement data for each connection point. This is the key view for retailers to verify energy charges."</p> <p>The remaining amount of electricity is assigned a residual emissions factor calculated using the Scope 2 and 3 national emissions factor published in the National Greenhouse Accounts Factors by the Commonwealth Department of Climate Change, Energy the Environment and Water, adjusted to remove the impact of the Renewable Power Percentage.</p> <p>The amount of sold electricity is then multiplied by the residual emissions factor to calculate the GHG emissions associated with power deliveries.</p> <p>The numbers used in the calculations for 2022 are as follows:</p> <p>Market-based method</p> <p>Wholesale electricity purchased to sell to customers – 925,845.97 MWh</p> <p>LGCs surrendered (by ZEN or by ZEN customers) – 358,836 LGCs</p> <p>2022 Australian Emissions Factor = 0.77 t CO₂-e / MWh</p> <p>Residual emissions factor to remove the impact of the RET (the amount of LGCs that we know for sure have been surrendered) – $0.77 / (1 - 18.64\% \text{ (the 2022 RPP)}) = 0.94641 \text{ t CO}_2\text{-e / MWh}$</p> <p>Market-based emissions = $(925,845.97 \text{ MWh} - 358,836 \text{ LGCs}) * 0.94641 = \mathbf{536,624 \text{ t CO}_2\text{-e}}$</p>					

Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
					<p>Location-based method</p> <p>For transparency, we also report our Scope 2 emissions using the location-based method, where each State, Territory or grid in Australia is assigned a separate emissions factor and multiplied by sold electricity in each jurisdiction. In this method, renewable energy purchases are ignored and are split up evenly amongst all electricity consumers in each jurisdiction.</p> <p>Wholesale electricity purchased to sell to customers in NSW - 155,581 MWh</p> <p>Wholesale electricity purchased to sell to customers in QLD - 72 MWh</p> <p>Wholesale electricity purchased to sell to customers in SA - 713,332 MWh</p> <p>Wholesale electricity purchased to sell to customers in VIC - 56,861 MWh</p> <p>2022 NSW Emissions Factor = 0.79 t CO₂-e / MWh</p> <p>2022 QLD Emissions Factor = 0.88 t CO₂-e / MWh</p> <p>2022 SA Emissions Factor = 0.33 t CO₂-e / MWh</p> <p>2022 VIC Emissions Factor = 0.92 t CO₂-e / MWh</p> <p>Location-based emissions = (155,581 MWh * 0.79 t CO₂-e / MWh) + (72 MWh * 0.88 t CO₂-e / MWh) + (713,332 MWh * 0.33 t CO₂-e / MWh) + (56,861 MWh * 0.92 t CO₂-e / MWh) = 410,684 t CO₂-e</p> <p>Note that, due to the reporting cadence of the National Greenhouse Accounts factors, there are no explicit emissions factors for calendar year 2021. The 2021 factors go up to the 2018/19 financial year, and then provide a “latest estimate”. Given these factors were published in August 2021, we have assumed that the “latest estimate” factors correspond to the 2019/20 financial year. The 2022 factors no longer include historical figures, and no longer average emissions factors over 3 years. Given that the factors were published in February 2023 and state that “Data are for financial years ending in June” we have assumed that the 2022 factors correspond to the 2021/22 financial year. As a result, we have averaged the “latest estimate” factor from the 2021 factors, and the factor from the 2022 factors to obtain a ‘2021 emissions factor’.</p> <p>Also note that although the National Greenhouse Factors correspond to financial year, we have applied the factors as given to calendar years. Due to the amount of estimations and assumptions going into the factors, it did not seem appropriate to add additional assumptions in averaging factors across financial years to obtain a calendar year emissions factor, particularly given the seasonal nature of electricity grid emissions and the calendar year nature of LGC surrender.</p>

Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
Environmental	Climate change and carbon emissions	305-4 GHG emissions intensity	0.71 t CO ₂ -e / MWh (market-based) 0.40 t CO ₂ -e / MWh (location-based)	0.58 t CO ₂ -e / MWh (market-based) 0.44 t CO ₂ -e / MWh (location-based)	<p>Although market-based emissions intensity decreased from 2021 to 2022 due to us increasing our amount of renewable electricity sold, our location-based emissions intensity increased due to increasing the amount of electricity sold to customers who consume electricity in higher emitting grids. The only way for us to bring our location-based emissions intensity down (apart from helping customers reduce their grid electricity consumption, which we are doing) is to selectively sell electricity to consumers in lower emitting jurisdictions such as South Australia and ignoring consumers in higher emitting jurisdictions.</p> <p>The emissions intensity reported represents Scope 3 sold electricity emissions only. The denominator of the emission's intensity represents MWh's of wholesale electricity purchased from AEMO.</p> <p>The emission factors used from the NGA Factors do not have the granularity to report what gases are included.</p>
		305-5 Reduction of GHG emissions	<p>In 2022, we increased sold electricity by 24% from 745,373 MWh in 2021 to 925,846 MWh. When using the market-based approach, this resulted in a proportionally smaller increase in emissions of 2% from 526,043 tonnes CO₂-e to 536,624 tonnes CO₂-e. This is because our customers increased their proportion of renewable energy purchased from 27% in 2021 to 39% in 2022. This is reflected in the reduction of our emissions intensity from 0.71 tonnes CO₂-e / MWh in 2021 to 0.58 tonnes CO₂-e / MW in 2022.</p> <p>Our emissions reduction strategy involves working with customers to ramp up their renewable electricity purchases, and continue signing customers who have an ambition to reach 100% renewable. We have chosen to measure and track our Scope 3 sold electricity emissions reduction target using the market-based method because we believe this method requires organisations to put money behind their reductions claims and encourages the build of additional renewable energy generation.</p> <p>Conversely, adopting a location-based target would mean that our emissions reduction strategy would involve reducing our customers' electricity consumption, reducing the number of customers in our portfolio, encouraging our customers to move to, or only signing customers in grids with higher proportions of renewable energy, or building significant amounts of renewable energy generation in the same grids as our customer load. We are helping customers reduce grid electricity consumption and increase energy efficiency. At the same time, if all our customers reduced their grid electricity consumption to zero, then we would have no customers.</p> <p>These Scope 3 sold electricity emissions reductions are calculated using the NGA Factors which do not have the granularity to report what gases are included.</p>		

Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
Environmental	Waste	306-1 Waste generation and significant waste-related impacts	N/A	N/A	<p>Waste is not a material issue for our current operations within this reporting period but is an anticipated issue as our renewable asset development projects begin in the next year and will be included in future reporting.</p> <p>The materiality process did not assign a timeframe when discussing whether topics were deemed to be material or not. Given that ZEN Energy's office waste is negligible, ZEN Energy believes that waste was not a material issue for its operations within this reporting period.</p> <p>ZEN acknowledges that it will be a material issue as our renewable asset development projects begin and will be included in future reporting.</p>
		306-2 Management of significant waste-related impacts	N/A	N/A	
		306-3 Waste generated	N/A	N/A	
		306-4 Waste diverted from disposal	N/A	N/A	
		306-5 Waste directed from disposal	N/A	N/A	
Social	Health and Safety	403-1 Occupational health and safety management system	N/A	<p>Work Health and Safety (WHS) is managed through Bi-Monthly WHS Committee meetings, with all agenda and meeting minutes, centrally located and shared in our ZEN Integrated Management System.</p> <p>In November 2022, we received 10 Year Milestone certification to the 45001 (WHS) standard, since 2012.</p>	
		403-2 Hazard identification, risk assessment, and incident investigation	N/A		<p>ZEN Energy values our employees, contractors, clients, and the communities in which we operate. We are committed to ensuring our proactive management practices continually strive to protect and promote the health and safety of all people and the community for now and the future.</p> <p>ZEN Energy acknowledges the important role of incident reporting and investigation in ensuring the health, safety and welfare of all persons within the workplace.</p> <p>It is therefore, the intention of ZEN Energy to ensure that all incidents, regardless of severity, are reported and investigated for the specific purpose of identifying the causes of the incident and to take corrective actions.</p>

Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
Social	Health and Safety	403-9 Work related injuries	<p>One incident reported that resulted in an injury or resulted in first aid or medical treatment in the reporting period. The incident that occurred during the reporting period impacted a third-party contractor and the management of this incident took place through the contracted organisation. We had investigated the case and concluded that this was a once-off case with no evidence of systemic issues pertaining to the contractor's WHS policies/procedures. We have also communicated to our contractor network regarding the incident as a reminder on workplace health and safety.</p> <p>A 3-month follow-up as per our policy will be carried out to ensure corrective action was successful and no further incidents occur.</p>	<p>One near miss reported that did not result in injury. The near miss that occurred during the reporting period impacted a third-party contractor and the management of this incident took place through the contracted organisation. From further investigation all actions were addressed by the third-party contractor, no further action was required from ZEN.</p>	

Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
Social	Employee engagement and development	404-1 Average hours of training per year per employee	N/A	N/A	ZEN Energy will collect and report this data in conjunction with the implementation of ZEN's professional development and policy by the end of 2023.
		404-3 Percentage of employees receiving regular performance and career development reviews	N/A	N/A	
	Modern slavery and supply chain standards	308-1, 414-1 New suppliers that were screened using environmental / social criteria	N/A	N/A	As the asset development side of the business grows, we will be collecting and reporting the outcomes of our Supply Chain Code of Conduct assessments.
		308-2, 414-2 Negative environmental / social impacts in the supply chain and actions taken	N/A	N/A	
	Diversity	405-1 Diversity of governance bodies and employees	N/A	N/A	We will collect and report this data in conjunction with the development and implementation of ZEN's diversity and inclusion policy by the end of 2023.
		405-2 Ratio of basic salary and remuneration of women to men	N/A	N/A	
Pay	2-21 Annual total compensation ratio	N/A	N/A	We will collect and report this data in conjunction with improvements to ZEN's performance and remuneration framework by the end of 2023.	
Governance	Privacy and data security	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	We had zero substantiated and reported complaints concerning breaches of customer privacy and losses of customer data.	We had zero substantiated and reported complaints concerning breaches of customer privacy and losses of customer data.	

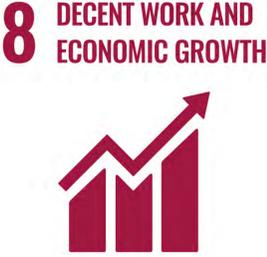
Key Global Reporting Initiative standards

Area	Material topic	Disclosure	2021	2022	Notes
Governance	Working ethically	205-2 Communication and training about anti-corruption policies and procedures	We are committed to anti-corruption. All employees must acknowledge and abide by our Code of Conduct, Whistleblower, and Anti-Bribery and Corruption Policies through our induction processes.	We are committed to anti-corruption. All employees must acknowledge and abide by our Code of Conduct, Whistleblower, and Anti-Bribery and Corruption Policies through our induction processes.	
		205-3 Confirmed incidents of corruption and actions taken	We had no confirmed or suspected cases of corruption during the reporting period.	We had no confirmed or suspected cases of corruption during the reporting period.	

UN Sustainable Development Goals

Goal	Target	Location or explanation
3 GOOD HEALTH AND WELL-BEING 	3.9	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
5 GENDER EQUALITY 	5.1	End all forms of discrimination against all women and girls everywhere
	5.5	Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.
7 AFFORDABLE AND CLEAN ENERGY 	7.1	By 2030, ensure universal access to affordable, reliable and modern energy services
	7.2	By 2030, increase substantially the share of renewable energy in the global energy mix
	7.3	By 2030, double the global rate of improvement in energy efficiency

UN Sustainable Development Goals

Goal	Target	Location or explanation
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	8.5	<p>By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p> <p>ZEN Energy has committed to improving work conditions for all our team members through performance, remuneration, and professional development frameworks, as well as promoting gender equality through diversity and equality policies and commitments.</p> <p>Our work in this space over the last year is detailed in the Social section.</p>
	8.7	<p>Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms</p> <p>ZEN Energy has initiated and implemented policies and procedures to help us manage the integrity of our supply chain. We have done so in line with both our obligations under the Modern Slavery Act (2018), and in a way that aligns with our values and promotes better outcomes.</p> <p>This year, we have progressed work to give us better visibility of our supply chain and modern slavery risks. We are committed to be a leader in the renewable energy sector on the due diligence process in ensuring supply chain integrity and mitigate against modern slavery risks.</p>
	8.8	<p>Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</p> <p>ZEN Energy is committed to providing a safe work environment in accordance with, and, where possible, exceeding minimum requirements to drive a culture of safety across the organisation.</p>
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	12.5	<p>By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p> <p>ZEN Energy is investigating ways to reduce waste generation in our large-scale asset development projects.</p>
		<p>Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle</p> <p>ZEN Energy is committed to reporting sustainability information at least annually following the release of this report.</p>

UN Sustainable Development Goals

Goal	Target	Location or explanation
13 CLIMATE ACTION 	13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
	13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	16.5	Substantially reduce corruption and bribery in all their forms
17 PARTNERSHIPS FOR THE GOALS 	17.17	Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

ZEN Energy's business strategy supports this SDG by increasing the generation of renewable energy and encouraging and supporting customers to increase their usage of renewable energy.

By aiming to reduce our emissions in line with a science-based 1.5°C target, we are working to reduce the worst impacts of climate change.

ZEN Energy has implemented a range of policies to ensure we work transparently, ethically and with accountability including our Code of Conduct, Whistleblower Policy, Anti-Bribery and Corruption Policy, Modern Slavery Policy and the Supplier Code of Conduct.

ZEN Energy has built a broad ecosystem of sustainability-driven partners to advance our purpose, and establish trust and collaborative relationships to demonstrate the utility sector's potential to participate in the zero-carbon world.

2022 ESG Report Addendum

This addendum to **ZEN's 2022 ESG Report** includes data updates, and improvements to reporting in the disclosure tables.

ZEN engaged BDO to perform a gap analysis of the environmental data reported in the 2022 ESG Report and its alignment with the relevant Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) metrics. As a result of the analysis BDO recommended changes or updates to the following metrics:

SASB

- **Greenhouse Gas Emissions and Energy Resource Planning**

- IF-EU110a.1
- IF-EU110a.2
- IF-EU110a.3
- IF-EU110a.4

- **Air Quality**

- IF-EU120a.1

- **Waste Management**

- IF-EU140a.1
- IF-EU140a.2
- IF-EU140a.3

- **Coal Ash Management**

- IF-EU150a.1
- IF-EU150a.2

GRI

- **Emissions**

- 305-1
- 305-2
- 305-3
- 305-4
- 305-5

- **Waste and Hazardous Materials Management**

- 306-1
- 306-2
- 306-3
- 306-4
- 306-5

2022 ESG Report Addendum

We are working towards recalculating all metrics where gaps in reporting were identified and the recalculations completed are reported here.

Additionally, BDO conducted a high-level review and found nothing that indicates that ZEN's methodology for reporting market-based sold electricity emissions is not in alignment with current Science Based Targets initiative guidance – **“Setting 1.5°C-Aligned Science-Based Targets: Quick Start Guide for Electric Utilities”**.

The major data updates relate to the 2021 GHG emissions associated with power deliveries. The data has been updated due to **standard meter data revisions that occur in the AEMO Market Management System tables** and the release of newer **National Greenhouse Accounts Factors**.

Sold electricity data from **AEMO goes through several updates according to the following schedule:**

- Consumption week - week X
- Preliminary data - week [X+2]
- Final data - week [X+4]
- Revision 1 - week [X+20]
- Revision 2 - week [X+30]

The 2022 ESG Report data was compiled before the release of Revision 2 data, hence updated sold electricity figures.

The 2021 emissions factor used has also been updated since initial reporting. Due to the reporting cadence of the National Greenhouse Accounts factors, there are no explicit emissions factors for calendar year 2021.

- The **2021 factors** go up to the 2018/19 financial year, and then provide a “latest estimate”. Given these factors were published in August 2021, we have assumed that the “latest estimate” factors correspond to the 2019/20 financial year.
- The **2022 factors** no longer include historical figures, and no longer average emissions factors over 3 years. Given that the factors were published in February 2023 and state that “Data are for financial years ending in June” we have assumed that the 2022 factors correspond to the 2021/22 financial year.

As a result, we have averaged the “latest estimate” factor from the 2021 factors, and the factor from the 2022 factors to obtain a ‘2021 emissions factor’, which is higher than the factor used in the FY22 ESG Report. Also note that although the National Greenhouse Factors correspond to financial year, we have applied the factors as given to calendar years. Due to the amount of estimations and assumptions going into the factors, it did not seem appropriate to add additional assumptions in averaging factors across financial years to obtain a calendar year emissions factor, particularly given the seasonal nature of electricity grid emissions and the calendar year nature of LGC surrender.

For completeness, updated SASB and GRI response tables are included below, including disclosures that had no changes.

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
Greenhouse Gas Emissions and Energy Resource Planning	IF-EU-110a.1	1) Gross global Scope 1 emissions	3 tCO2-e	3 tCO2-e The organisational control approach is used to consolidate ZEN's emissions.	
		2) Percentage Scope 1 emissions covered under emissions-limiting regulations	0%	0% No direct emissions under the Safeguard Mechanism.	
		3) Percentage Scope 1 emissions covered under emissions-reporting regulations	0%	0% No emissions under emissions reporting regulations	
	IF-EU-110a.2	GHG emissions associated with power deliveries	479,778 tCO2-e	526,043 tCO2-e This figure is calculated using the market-based method for electricity emissions, as detailed by the Greenhouse Gas Protocol , which the Electric Power Sector Protocol for the Voluntary Reporting Program required by SASB is aligned to. For transparency, using the location-based method, where each State, Territory or grid in Australia is assigned a separate emissions factor and multiplied by sold electricity in each jurisdiction, ZEN Energy has 295,542 t CO2-e GHG emissions associated with sold electricity.	Under the market-based method, the number of large-scale generation certificates surrendered against the calendar year to the Clean Energy Regulator was subtracted from the amount of sold electricity, which is determined by the Australian Energy Market Operator from their SETCPDATA table which “shows meter settlement data for each connection point. This is the key view for retailers to verify energy charges.” The remaining amount of electricity is assigned a residual emissions factor calculated using the Scope 2 and 3 national emissions factor, published in the National Greenhouse Accounts Factors by the Commonwealth Department of Climate Change, Energy the Environment and Water, adjusted to remove the impact of the Renewable Power Percentage. The amount of sold electricity is then multiplied by the residual emissions factor to calculate the GHG emissions associated with power deliveries.

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
					<p>The numbers used in these calculations are as follows:</p> <p>Market-based method</p> <ul style="list-style-type: none"> Wholesale electricity purchased to sell to customers - 745,373 MWh LGCs surrendered (by ZEN or by ZEN customers) - 202,950 LGCs 2021 Australian Emissions Factor - average of 2020 and 2022 factors $(0.81+0.77)/2 = 0.79$ t CO₂-e / MWh Residual emissions factor to remove the impact of the RET (the amount of LGCs that we know for sure have been surrendered) - $0.79/(1-18.5\%$ (the 2021 RPP)) = 0.969801 t CO₂-e / MWh <p>Market-based emissions = $(745,373.37 \text{ MWh} - 202,950 \text{ LGCs}) * 0.969801 = 526,043 \text{ t CO}_2\text{-e}$</p> <p>Location-based method</p> <ul style="list-style-type: none"> Wholesale electricity purchased to sell to customers in NSW - 44,014 MWh Wholesale electricity purchased to sell to customers in SA - 672,935 MWh Wholesale electricity purchased to sell to customers in VIC - 28,425 MWh 2021 NSW Emissions Factor - average of 2020 and 2022 factors $(0.85+0.79)/2 = 0.82$ t CO₂-e / MWh 2021 SA Emissions Factor - average of 2020 and 2022 factors $(0.36+0.33)/2 = 0.345$ t CO₂-e / MWh 2021 VIC Emissions Factor - average of 2020 and 2022 factors $(1+0.92)/2 = 0.96$ t CO₂-e / MWh <p>Location-based emissions = $(44,014 \text{ MWh} * 0.82 \text{ t CO}_2\text{-e / MWh}) + (672,935 \text{ MWh} * 0.345 \text{ t CO}_2\text{-e / MWh}) + (28,425 \text{ MWh} * 0.96 \text{ t CO}_2\text{-e / MWh}) = 295,542 \text{ t CO}_2\text{-e}$</p>

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
					<p>The 2021 GHG emissions associated with power deliveries have increased due to a data update in both amount of sold electricity and emission factors. Sold electricity data from AEMO goes through several updates according to the following schedule:</p> <ul style="list-style-type: none"> • Consumption week - week X • Preliminary data - week [X+2] • Final data - week [X+4] • Revision 1 - week [X+20] • Revision 2 - week [X+30] <p>The 2022 ESG Report data was compiled before the release of Revision 2 data, hence updated sold electricity figures.</p> <p>The 2021 emissions factor used has also been updated since initial reporting. Due to the reporting cadence of the National Greenhouse Accounts factors, there are no explicit emissions factors for calendar year 2021.</p> <ul style="list-style-type: none"> • The 2021 factors go up to the 2018/19 financial year, and then provide a “latest estimate”. Given these factors were published in August 2021, we have assumed that the “latest estimate” factors correspond to the 2019/20 financial year. • The 2022 factors no longer include historical figures, and no longer average emissions factors over 3 years. Given that the factors were published in February 2023 and state that “Data are for financial years ending in June” we have assumed that the 2022 factors correspond to the 2021/22 financial year. <p>As a result, we have averaged the “latest estimate” factor from the 2021 factors, and the factor from the 2022 factors to obtain a ‘2021 emissions factor’, which is higher than the factor used in the FY22 ESG Report.</p>

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
					Also note that, although the National Greenhouse Factors correspond to financial year, we have applied the factors as given to calendar years. Due to the amount of estimations and assumptions going into the factors, it did not seem appropriate to add additional assumptions in averaging factors across financial years to obtain a calendar year emissions factor, particularly given the seasonal nature of electricity grid emissions and the calendar year nature of LGC surrender
	IF-EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets.	In report	<p>Using the market-based method, ZEN's Scope 3 sold electricity absolute emissions reduced by 13.8% from 2020 to 2021, from 615,796 t CO₂-e to 526,043 t CO₂-e. ZEN's Scope 3 sold electricity emissions intensity reduced by 8.4% from 2020 to 2021 from 0.78 t CO₂-e / MWh to 0.71 t CO₂-e / MWh.</p> <p>ZEN's 2020 data is not granular enough to assess location-based reductions.</p> <p>The major limiting factors and risks to achieving the Scope 3 sold electricity emissions reduction targets are if energy consumers are reluctant to pay for renewable energy certificates, and if insufficient renewable energy generation is built around Australia. ZEN is actively mitigating both of these risks by working directly with consumers and taking an active role in renewable asset creation.</p>	

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
	IF-EU-110a.4	1) Number of customers served in markets subject to renewable portfolio standards (RPS)	16		<p>As an Australian electricity retailer, ZEN Energy is required to comply with the Australian Renewable Energy Target (RET) scheme. The RET scheme covers all Australian jurisdictions in which ZEN Energy sells energy.</p> <p>This figure covers the number of retail contracts during the reporting period under which ZEN served electricity to customers. Note that there will be multiple meters associated with each retail contract. The Australian Energy Regulator (AER) reported that ZEN Energy has a total of 7,412 “large electricity customers” or 11.7% “market share” as of Q3 2021-22 in the AER retail performance report published on 30 June 2022.</p> <p>ZEN have now submitted the required LGCs to the CER to fulfill the remainder of our 2021 LRET liability. Taking an LGC shortfall at the time was a legacy business decision that no longer fits in with our goals as an organisation. Going forward, we will fully meet our RET liability within each compliance period from calendar year 2023.</p>
		2) Percentage fulfilment of RPS target by market	90% LRET liability fulfilled	100% LRET liability fulfilled	
			100% SRES liability fulfilled		
Air Quality	IF-EU-120a.1	Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) particulate matter (PM10), (4) lead (Pb), and (5) mercury (Hg); percentage of each in or near areas of dense population	N/A	ZEN Energy does not own or operate any applicable facilities impacting air quality, and the air emissions of pollutants from mobile sources are immaterial.	
Water Management	IF-EU-140a.2		N/A	ZEN Energy does not own or operate any applicable facilities requiring water management, and ZEN Energy’s office water use is immaterial.	
	IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations			
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks			

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
Energy Affordability	IF-EU-240a.1	1) Average retail electric rate for residential customers		N/A	ZEN Energy is currently prototyping a 100% renewable residential retail electricity product. Whilst some residential meters may be assigned to ZEN, we will report on this metric when our residential product is formally launched.
		2) Average retail electric rate for commercial customers		\$74 / MWh	Note this figure is the average weighted electricity price for customers and does not include the mandatory LRET charges and network costs.
		3) Average retail electric rate for industrial customers		N/A	ZEN Energy did not serve industrial customers during the reporting period.
	IF-EU-240a.2	1) Typical monthly electric bill for residential customers for 500 kWh of electricity delivered per month		N/A	ZEN Energy is currently prototyping a 100% renewable residential retail electricity product. Whilst some residential meters may be assigned to ZEN, we will report on this metric when our residential product is formally launched.
		2) Typical monthly electric bill for residential customers for 1,000 kWh of electricity delivered per month		N/A	
	IF-EU-240a.3	1) Number of residential customer electric disconnections for non-payment		N/A	
		2) Percentage of residential customers reconnected within 30 days following disconnection for non-payment		N/A	
	IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory		See Messages from Chair and CEO.	ZEN Energy's strategy to secure cost-competitive firm renewable PPAs to hedge our customer load has and will reduce ZEN's and therefore, our customer's exposure to the volatile spot market prices. This allows ZEN to bring long-term price stability to our commercial customers who are mostly of strong credit-rating. ZEN's Billing Operations and Customer Service teams monitor for late payments and work closely with our customers to facilitate payment plans should they need it.

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
Coal Ash Management	IF-EU-150a.1	Amount of coal combustion residuals (CCR) generated, percentage recycled	N/A	ZEN Energy does not own or operate any facilities requiring coal ash management, nor does it have any direct energy offtake contract with coal-based generation.	
	IF-EU-150a.2	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment			
Activity Metrics	IF-EU-000.A	1) Number of residential customers served	N/A		ZEN Energy is currently prototyping a retail electricity product. Whilst some residential meters may be assigned to ZEN, we will report on this metric when our residential product goes public.
		2) Number of commercial customers served	16		This figure covers the number of retail contracts during the reporting period under which ZEN served electricity to customers. Note that there will be multiple meters associated with each retail contract.
		3) Number of industrial customers served	N/A		ZEN Energy did not serve industrial customers during the reporting period.
	IF-EU-000.B	1) Total electricity delivered to residential customers	N/A		ZEN is currently prototyping a retail electricity product. Whilst some residential meters may be assigned to ZEN, we will report on this metric when our residential product goes public.

2022 ESG Report Addendum

SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
		2) Total electricity delivered to commercial customers	663,610 MWh	669,607 MWh in calendar year 2021 Note that all of ZEN's electricity in 2021 was delivered to commercial customers. This reported figure largely represents 100% of the wholesale electricity purchased, minus losses that occur to give the volume consumed by the customer. This figure is also missing a small amount of consumption from customers whose sites do not have meters that meet the data requirements to be included in this figure. This consumption is still captured by the total wholesale electricity purchased disclosure in IF-EU-000.E.	Note this figure applies to calendar year 2021. This figure has increased due to AEMO data revisions. Sold electricity data from AEMO goes through several updates according to the following schedule: <ul style="list-style-type: none"> • Consumption week - week X • Preliminary data - week [X+2] • Final data - week [X+4] • Revision 1 - week [X+20] • Revision 2 - week [X+30] The 2022 ESG Report data was compiled before the release of Revision 2 data, hence updated sold electricity figures.
		3) Total electricity delivered to industrial customers		N/A	ZEN Energy only had commercial customers during the reporting period.
		4) Total electricity delivered to all other retail customers			
		5) Total electricity delivered to wholesale customers			

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SASB Topic	Code	Accounting Metric	2021 (original response)	2021 (updated response)	Definition
	IF-EU-000.C	Length of transmission and distribution lines		N/A	ZEN Energy is not a network operator.
	IF-EU-000.D	1) Total electricity generated		N/A	ZEN Energy did not own or operate any generation during the reporting period.
		2) Percentage electricity generated by major energy source			
		3) Percentage electricity generated in regulated markets			
	F-EU-000.E	Total wholesale electricity purchased	741,967 MWh	745.373.37 MWh	<p>Note this figure applies to calendar year 2021.</p> <p>This figure has increased due to AEMO data revisions. Sold electricity data from AEMO goes through several updates according to the following schedule:</p> <ul style="list-style-type: none"> • Consumption week - week X • Preliminary data - week [X+2] • Final data - week [X+4] • Revision 1 - week [X+20] • Revision 2 - week [X+30] <p>The 2022 ESG Report data was compiled before the release of Revision 2 data, hence updated sold electricity figures.</p>

2022 ESG Report Addendum

Area	Material topic	Disclosure	Disclosure title	Location or explanation (2021 original response)	Disclosure (2021 updated response)
Environmental	Climate change and carbon emissions	305-1	Direct (Scope 1) GHG emissions	Environment - Our emissions reduction plan	<p>3 tCO₂-e</p> <p>The organisational control approach is used to consolidate ZEN's emissions.</p> <p>Note the Scope 1 CO₂-e calculation includes CO₂, CH₄ and N₂O. The emission factors and global warming potentials were sourced from the National Greenhouse Accounts Factors February 2023.</p> <p>ZEN Energy does not have any biogenic emissions.</p>
		305-2	Energy indirect (Scope 2) GHG emissions		<p>Market-based method - 34 tCO₂-e</p> <p>Location-based method - 22 t CO₂-e</p> <p>Please refer to disclosure IF-EU-110a.2 in the SASB table for a detailed discussion of the sold electricity emissions calculation methodology.</p> <p>The same methodology was applied to calculating ZEN's scope 2 emissions.</p>
		305-3	Other indirect (Scope 3) GHG emissions	<p>ZEN has calculated our Scope 3 sold electricity emissions, as the starting of our Scope 3 emissions account. These emissions should proportionally make up the vast majority of our Scope 3 emissions.</p> <p>Market-based method - 526,043 tCO₂-e</p> <p>Location-based method - 295,542 t CO₂-e</p> <p>Please refer to disclosure IF-EU-110a.2 in the SASB table for a detailed discussion of the calculation methodology for sold electricity emissions.</p> <p>2020 was chosen as the base year because it was the first year that had data available, with a comparable customer portfolio to when ZEN decided to begin calculating our emissions. Using the market-based method, 615,796 t CO₂-e came from sold electricity in 2020.</p> <p>Unfortunately, the data for the 2020 sold electricity is not granular enough to calculate the location-based emissions, however, given the similarity in portfolio between 2020 and 2021, it is likely that location based emissions are similarly lower than market-based emissions.</p>	

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Area	Material topic	Disclosure	Disclosure title	Location or explanation (2021 original response)	Disclosure (2021 updated response)
		305-4	GHG emissions intensity		<p>2021</p> <p>Market-based method - 0.71 t CO₂-e / MWh</p> <p>Location-based method - 0.40 t CO₂-e / MWh</p> <p>The emissions intensity reported represents Scope 3 sold electricity emissions only. The denominator of the emission's intensity represents MWh's of wholesale electricity purchased from AEMO.</p> <p>The emission factors used from the NGA Factors do not have the granularity to report what gases are included.</p>
		305-5	Reduction of GHG emissions		<p>ZEN's Scope 3 sold electricity emissions reduced from 2020 to 2021 through a reduction of customer load, and an increase of proportion of renewable energy sold. Although the reduction of customer load wasn't an emissions reduction action, the increase of proportion of renewable energy was reflected in the reduced emissions intensity of sold electricity.</p> <p>2020 was chosen as the base year because it was the first year that had data available, with a comparable customer portfolio to when ZEN decided to begin calculating its emissions.</p> <p>These Scope 3 sold electricity emissions reductions are calculated using the NGA Factors which do not have the granularity to report what gases are included.</p>
	Waste	306-1	Waste generation and significant waste-related impacts	Waste is not a material issue for our current operations within this reporting period but is an anticipated issue as our renewable asset development projects begin in the next year and will be included in future reporting.	The materiality process did not assign a timeframe when discussing whether topics were deemed to be material or not. Given that ZEN Energy's office waste is negligible, ZEN Energy believes that waste was not a material issue for its operations within this reporting period. ZEN acknowledges that it will be a material issue as our renewable asset development projects begin and will be included in future reporting.
306-2		Management of significant waste-related impacts			
306-3		Waste generated			
306-4		Waste diverted from disposal			

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Area	Material topic	Disclosure	Disclosure title	Location or explanation (2021 original response)	Disclosure (2021 updated response)
		306-5	Waste directed to disposal	Governance - Best practice systems for management and oversight	
		403-1	Occupational health and safety management system		
		403-2	Hazard identification, risk assessment, and incident investigation		
Social	Health and Safety	403-3	Occupational health services	One incident reported that resulted in an injury or resulted in first aid or medical treatment in the reporting period. The incident that occurred during the reporting period impacted a third-party contractor, and the management of this incident took place through the contracted organisation. We investigated the case and concluded that this was a once-off case with no evidence of systemic issues pertaining to the contractor's WHS policies/procedures. We have also communicated with our contractor network regarding the incident as a reminder on workplace health and safety. A 3-month follow-up per our policy will be carried out to ensure corrective action was successful and no further incidents occur.	
		403-9	Work-related injuries		
	Employee engagement and development	404-1	Average hours of training per year per employee		
		404-3	Percentage of employees receiving regular performance and career development reviews		
	Modern slavery and supply chain standards	308-1, 414-1	New suppliers that were screened using environmental / social criteria	As the asset development side of the business grows, we will be collecting and reporting the outcomes of our Supply Chain Code of Conduct assessments	
		308-2, 414-2	Negative environmental / social impacts in the supply chain and actions taken		

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Area	Material topic	Disclosure	Disclosure title	Location or explanation (2021 original response)	Disclosure (2021 updated response)
	Diversity	405-1	Diversity of governance bodies and employees	We will collect and report this data in conjunction with the development and implementation of ZEN's diversity and inclusion policy by the end of 2023.	
		405-2	Ratio of basic salary and remuneration of women to men		
	Pay	2-21	Annual total compensation ratio	We will collect and report this data in conjunction with improvements to ZEN's performance and remuneration framework by the end of 2023.	
Governance	Privacy and data security	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	We have zero substantiated and reported complaints concerning breaches of customer privacy and losses of customer data.	
	Working ethically	205-2	Communication and training about anti-corruption policies and procedures	We are committed to anti-corruption. Communications following the development of our Code of Conduct, Whistleblower Policy and Anti-Bribery and Corruption Policy were done and we are developing our Professional Development Framework which will include the list of compliance training required as part of corporate induction.	
		205-3	Confirmed incidents of corruption and actions taken	We had no confirmed or suspected cases of corruption during the reporting period.	

Corporate policies

Policies	Description
Quality, Environment and WHS Policies	Outlines ZEN's commitment to conduct our business in a manner that respects all the applicable laws, regulations, standards, and other requirements and is committed to maintaining systems compliant with the internationally recognised standards ISO9001, ISO14001 and ISO45001.
Corrective Actions and Business Improvements	Reporting system for business improvements, non-conformances and non-compliances and subsequent corrective and preventive actions that may be required.
Incident Investigation and Reporting	ZEN's approach to incident reporting and investigation in ensuring the health, safety and welfare of all persons within the workplace.
Workplace Health and Safety	ZEN's commitment to a workplace free of occupational injury and illness, a robust health and safety risk management system based on continuous improvement and a workplace and culture supportive of the priority we place on health and safety.
ICT Security Statement	Protects the Confidentiality, Integrity and Availability of the data and systems we use to service our customers and stakeholders. ZEN Energy has implemented and maintains an Information Security Management System (ISMS) aligned with industry best practices.
Information Security Policy	This policy establishes and communicates the expectations for cyber security within ZEN Energy and supports the business's ongoing secure operation to protect our staff, customers, and external partners.
Code of Conduct	Outlines the standards expected of ZEN Energy Personnel and how they should conduct themselves through all business activities.
Anti-Bribery and Corruption Policy	This policy outlines how ZEN Energy conducts its business ethically, with integrity, and in compliance with all applicable laws.
Whistleblower Policy	ZEN has improved the ability for employees, suppliers and other stakeholders to report any concerns about wrongdoing or misconduct, engaging an independent third-party provider with dedicated avenues for confidential reporting.
Modern Slavery Policy	ZEN Energy works proactively to reduce modern slavery within our supply chain and business operations, and we expect all organisations we engage with directly or indirectly to behave in the same manner.
Supplier Code of Conduct	All directors, employees and contractors of, and suppliers to, ZEN Energy are expected to observe the highest possible standards of behaviour, ethics and integrity as a condition of their employment and relationship to ZEN Energy.

Glossary

Alternating Current - (AC)

The flow of electricity that changes direction periodically.

Ampere - (A)

An Ampere or "Amp" is a unit of electrical current/rate at which electricity is flowing.

Australian Energy Market Operator – (AEMO)

The AEMO's primary responsibility is to balance the demand and supply of electricity by despatching the generation necessary to meet demand.

Back-up power

Besides being a sustainable practice, this prevents you from not having electricity in a blackout or grid interruption.

Battery

Batteries are energy storage devices. Coupling batteries with renewable energy generation allows that energy to be stored during low demand and released at times of peak demand.

Battery Electric Vehicle (BEV)

Known as EVs (Electric Vehicles), they utilise the energy stored in their rechargeable battery packs.

Blackout

There is no light or power because of an electricity outage.

Capacity

Capacity is the maximum output of electricity that a generator can produce.

Capacity Market Programs – (CAP)

Capacity markets are used in some wholesale electricity markets to pay resources for being available to meet peak electricity demand.

Carbon Dioxide – (CO₂)

Carbon Dioxide is a gas released by human activities.

Carbon Footprint

The amount of greenhouse gas emissions released into the atmosphere generated from our activities, such as food creation and consumption and transport.

Carbon Monoxide – (CO)

Carbon Monoxide is a gas naturally present in the atmosphere.

Direct Current - (DC)

An electric current is uni-directional, therefore flowing continuously in the same direction.

Electricity

A form of energy resulting from the existence of charged particles (such as electrons or protons), either statically as an accumulation of charge or dynamically as a current.

Electricity Measurement

VOLTS VOLTAGE - **V**

AMPS AMPERE - **A**

WATTS - **W**

MEGA WATTS - **MW**

KILOWATT - **kW**

KILOWATT HOUR - **kWh**

Energy Efficiency

Energy efficiency means minimising energy waste to perform the same function reducing costs and greenhouse gases.

Environmental, Social, and Governance - (ESG)

Ethical standards to measure the companies' impact on topics such as Climate Change (Environmental), Human rights (Social) and Business Ethics (Governance).

Feed-in Tariff – (FiT)

Feed-in tariffs for renewable energy pay for excess electricity generated by small-scale solar photovoltaic (PV) or wind power systems.

Fossil Fuel

Non-renewable fuels including coal, oil, and natural gas.

Frequency

The balance of supply and demand controls the frequency. If the electricity demand is higher than the supply, there'll be less frequency. However, if the supply is higher than the demand, the frequency is higher.

Generator

A tool that converts mechanical energy into electrical energy.

Gigawatt-Hour - (GWh)

One billion (1,000,000,000) watts of electricity.

Global Climate Change

Climate change is a long-term shift in global or regional climate patterns.

Greenhouse Gases

Any gas that absorbs infra-red radiation in the atmosphere.

Grid

A grid-connected transmission and distribution system allowing power to reach buildings.

Hertz - (Hz)

The number of Hertz equals the number of cycles per second.

Inverter

An electronic device or circuitry changes Direct Current (DC) to Alternating Current (AC).

Joule - (J)

A unit of energy.

Kilowatt - (kW)

A unit of measure which equates to One thousand (1,000) watts.

Kilowatt-Hour - (kWh)

The amount of energy used per hour.

Large Scale Certificate - (LGC)

Certificates were created and validated as a government incentive to install solar energy systems above 100kW.

Megawatt – (MW)

A megawatt is one million (1,000,000) watts of electricity.

Megawatt-Hour - (MWh)

A megawatt hour equals (1,000) kilowatts of electricity generated per hour.

Megajoule - (MJ)

A Megajoule totals 1 million (1,000,000) Joules (J).

Meter

A device for measuring levels and volumes of electricity use.

National Electricity Market - (NEM)

The National Electricity Market is a wholesale market trading electricity between electricity producers and retailers.

National Greenhouse and Energy Reporting – (NGER)

A national framework responsible for reporting and disseminating company information about greenhouse gas emissions, energy production and energy consumption.

Offsets

Offset units used to compensate for emissions produced to reduce a carbon footprint.

Outage

An interruption of electric service that is temporary, also known as Blackout.

Peak Demand

Peak demand refers to the times of day when electricity consumption is at its highest.

Peak Load

The highest electrical demand within a particular period of time.

Peak Shaving

Peak Shaving consists of flattening the load profile and reducing the amount of energy purchased from companies during peak hours of energy demand to save costs.

Photovoltaic Cell – (PV)

A semiconductor that converts light directly into electricity.

Power Plant

An industrial facility that generates electricity from primary energy.

Power Purchase Agreement – (PPA)

Refers to a long-term electricity supply agreement between two parties.

Renewable (energy)

Energy generated from natural sources such as sun, wind and water and is continuously replenished.

Retail Market

A market in which electricity and other energy services are sold directly to the end-user.

Science Based Targets initiative - (SBTi)

Provide a clearly-defined pathway for companies and financial institutions to reduce greenhouse gas (GHG) emissions.

Scope 1 emissions

Are the emissions released into the atmosphere directly from an activity. Also referred to as direct emissions, examples include electricity generation and gas production.

Scope 2 emissions

Electricity consumed to power our offices and operating sites.

Scope 3 emissions

Encompasses indirect emissions, other than Scope 2, relating to value chain that we do not own or control, including wholesale purchases of electricity from the NEM.

Small-Scale Generation Certificates - (STC)

Small-Scale Generation Certificates are government incentives that help reduce the upfront cost of installing your energy solution and apply to systems below 100kW.

Solar Feed-in Tariff

The amount an electricity retailer pays for any electricity a solar energy solution generates that is fed back into the grid.

Solar Panel

They are constructed from a series of photovoltaic cells and generate energy from the sun. See Photovoltaic Cell – (PV).

Sustainability

Avoidance of the depletion of natural resources to maintain an ecological balance.

Tariff

A tariff is a price charged for the energy consumed.

Terawatt hour – (TWh)

A terawatt-hour is equal to outputting one trillion watts for one hour.

Thermal Energy

The energy that comes from the temperature of the heated substance.

Transmission Lines

The poles and wires carry electricity to everyone's homes, schools and workplaces.

Ultrahigh Voltage Transmission – (UVT)

Electricity transportation over bulk-power lines at voltages greater than 800 kilovolts.

Utility (industry)

A utility company sells electricity and connects it to homes.

Variance

Permission is granted for a limited time (under stated conditions) for a company to operate outside the limits prescribed in a regulation.

Volt - (V)

One Volt is defined as energy consumption of one Joule per electric charge of one Coulomb.

Watt - (W)

A Watt is a unit of power, and power is the rate at which energy is produced or consumed.

Watt-Hour - (Wh)

One watt of power is expended for one hour, representing one thousand (1,000) of a kilowatt-hour.

Wholesale Power Market

Generators and retailers trade electricity in Australia under the National Energy Market.

We acknowledge the Traditional Custodians of the land, waters and knowledge for the places where we gather to collaborate and strengthen communities. In our work, we recognise the importance of Country – not just as a place, but how it also maintains community, family, kin, lore and language. We pay our respects to Elders past, present and future.



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