



Our progress towards a more sustainable future

Sustainable Development Report 2022





About this report

This is Todd Corporation's third Sustainable Development Report. This report provides an overview of The Todd Corporation Limited's sustainable development approach and performance for the year ended 31 December 2022.

The Todd Corporation Limited is referred to as Todd or the Company throughout this report. References to the "Board" or the "Board of Directors" is a reference to the Board of Directors of The Todd Corporation Limited. Todd's Board of Directors approved this report. All data is in New Zealand dollars unless otherwise stated.



Interactive document with
clickable content

Scope

This report covers Todd's key operating businesses. The reporting entities are the businesses of Todd Energy New Zealand, Todd Energy Canada (TEC), Nova Energy and Todd's corporate office in Wellington.

For the purpose of this report, all of Todd's in-scope downstream entities are grouped under Nova Energy. This includes Todd Generation, Nova Energy's generation development arm.

Unless otherwise stated, references to Todd Energy are to Todd Energy New Zealand's upstream businesses and do not include TEC. For more information, see [Todd investments](#).

Reporting frameworks

This report refers to the core level of the Global Reporting Initiative (GRI) framework and the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations.

Other important information

This report may contain forward looking statements and metrics which are not, and should not be considered to be, guarantees, predictions or forecasts of future outcomes or performance. The statements are subject to known and unknown risks, uncertainties, and other factors, many of which are beyond Todd's control.

This report contains information regarding Todd and its activities, and such information is given in general summary/overview form and does not purport to be complete in all respects. Further, while we have prepared the information in this report based on our current knowledge, understanding and in good faith, the information has not been subject to external audit or assurance. The reporting on Todd's progress against its Sustainability Linked Loan (SLL) 2022 performance targets have been externally verified.



Contents

4 Overview

Letters from the
Group CEO and Chair

About us

Todd investments

Key performance highlights

12 Sustainable development

Sustainable development at Todd

Task Force on Climate-Related
Financial Disclosures (TCFD)

Five-year targets

19 Material topics

Energy, emissions and climate change

Community contribution

Biodiversity and environmental
management

Water, effluent and waste

Employee health, safety and wellbeing

54 Reporting frameworks

Appendix 1

TCFD Physical risk summary

Appendix 2

TCFD Qualitative transitional risk assessment

Appendix 3

GRI Index

Glossary



Nova Energy's Kapuni Solar
Plant in South Taranaki.



Overview

Letters from the Group CEO and Chair

| About us

| Todd investments

| Key performance highlights



Todd Energy employees in the New Plymouth office.



Todd Energy staff onsite at the McKee Mangahewa Production Station.

Letter from the Group CEO

Todd is committed to Aotearoa New Zealand. We're an integral part of New Zealand's energy system, keeping the lights on for both households and industry.

Todd is pleased to deliver our third Sustainable Development Report outlining activity and progress across 2022, as part of our commitment to sharing our sustainability journey with stakeholders.

Todd's approach to sustainable development reporting and related voluntary disclosures has evolved steadily since producing our first Sustainable Development Report in 2020. Our reporting approach, and wider sustainability programme, is focused on continuous improvement as management standards and reporting frameworks become better defined across industries.

New Zealand's transition to a low emissions future is Todd's transition too

New Zealand is transitioning away from fossil fuels and towards a more sustainable, renewable future. Because of our size and scale, we are a key player in the transition, ensuring a secure and affordable energy supply as the country electrifies.

We will support the transition to a low emissions future by continuing to play our part in meeting New Zealand's natural gas needs, while supporting the energy industry in exploring alternative fuels and through significant investment in major grid-scale solar projects.

As significant energy businesses, Todd Energy and Nova Energy are focused on helping meet New Zealand's energy needs now and in the future. While aiming to meet this demand and ensure New Zealand has a secure, reliable and affordable energy supply, Todd is committed to setting an intermediate gross greenhouse gas emissions reduction target in 2023, contributing to community growth and wellbeing, enhancing biodiversity assets, and mitigating environmental impacts.

Wind and solar are key to New Zealand's transition to renewables. In 2022 Todd significantly progressed its solar strategy – both progressing consenting for the Rangitāiki solar power plant and settling the purchase of ~900 ha of land for potential future solar development in the South Island. Our aim is that our investments in grid-scale solar will see Nova Energy become New Zealand's leading supplier of solar-generated electricity.

Nova Energy also has a majority stake in Sunergise International, a leading solar developer in the Pacific. In December, Sunergise International and the team at Nova Energy celebrated the opening

of a new solar farm across three sites in Tonga, helping set the island nation on a path to meet the Tongan Government's target of 70% renewable electricity by 2025.

Natural gas will underpin a secure and smooth transition to a more sustainable future and grid-scale solar will play a significant role in our energy supply future. While we're fully committed to reducing our carbon footprint, we'll likely remain high on the list of emitters in New Zealand while natural gas continues to be used as an important low emissions transition fuel.

Todd's sustainable development highlights in 2022

In 2022, Todd Energy completed a [carbon capture, utilisation and storage](#) (CCUS) feasibility study. The Company supports ongoing research into the viability of CCUS in a New Zealand context.

Todd Energy and Nova Energy's engagement and partnerships with tangata whenua, community groups and local businesses are purpose-driven and led to a range of positive outcomes in 2022 across several material topics. Todd Energy expanded its Cultural Development and Education Programme and developed a new Sustainability in our Communities Framework to help ensure it is allocating its time, energy, and resources where it matters most.



In 2022, employee safety and wellbeing were a cornerstone of our ongoing Covid-19 response and day-to-day operations. The total recordable injury frequency rate was 1.8 in 2022, which continues to place Todd in a strong position in the sectors in which we operate. Culture, inclusion, and greater work flexibility were a focus of the year, and we continue to evolve as an organisation and seize opportunities to engage our employees and drive prosperity.

Todd entered its first sustainability-linked loan (SLL) in 2022 which will help support the Company's progress to meeting its 2025 targets. Todd's performance against the SLL's 2022 sustainability performance targets, as described in this report, was verified by an external party, noting that whilst Todd was granted all necessary resource consents for the Rangitāiki solar development, one consent has been appealed and the outcome of that process will not be known until later in 2023.

Next steps on Todd's sustainable development journey

Todd's sustainable development programme continues to evolve to ensure we are well placed to support operations and future strategy to meet the expectations of stakeholders.

At the close of 2022, the Board approved the 2021 Sustainable Development Report which saw three firsts – the announcement of a long-term emissions target, the inclusion of four TCFD disclosure themes, and a public release of the report.

Publishing our 2021 report was in line with stakeholder expectations and a first step towards sharing Todd's sustainable development journey with a multi-stakeholder audience.

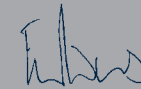
Environment, social and governance principles are embedded across our business, and Todd has pledged to become a net zero company by 2045 on its Scope 1 and 2 emissions. The next step on our emissions reduction pathway will be the establishment of an intermediate gross emissions target for Scope 1, 2 and 3, and providing clarity as to the steps we will take to achieve both our intermediate and net zero (Scope 1 and 2) targets. An assessment of Todd's material topics is also planned for 2023.

Todd recognises that the GRI standards and TCFD can support Todd in achieving positive sustainable development outcomes and facilitating progress toward achieving the United Nations Sustainable Development Goals with which Todd's Operating Principles align. Todd's core values are derived from the long-term stewardship of the Company by the family owners, and it is these values which continue to guide the business today.

Achievement of sustainable development outcomes has never been more relevant and necessary than it is today. Todd's activity and progress across 2022 reflect our ongoing commitment to supporting New Zealand's transition to a more sustainable future and ensuring stakeholder value is created and sustained over the long term.



Evan Davies
Group CEO



We remain committed to working with Government to continue our important role in ensuring we can meet New Zealand's energy needs as the country transitions, while actively exploring and developing opportunities for renewables to ensure our business is sustainable into the future.

Letter from the Chair

On behalf of the Board, I would like to acknowledge the progress being made across the Todd Group to reach our 2025 sustainable development targets and engage stakeholders on our sustainability journey.

Todd's 2021 report was the first to be published externally and since that reporting period, significant steps have been taken to advance our sustainable development programme. Our 2022 Sustainable Development Report showcases our recent progress and ongoing work to embed sustainable development practices across Todd's key businesses.

Governance, purpose, and performance

The Todd Board has committed to the evolution of our sustainable development programme by incorporating these practices at a governance level. In 2022, Todd's Health, Safety and Environment Board Committee was expanded to include culture, employee wellbeing and psychological safety, and sustainable development was integrated into the Audit and Risk Committee – both key milestones for the year.

The Committees meet at least three times a year and will drive strategy and fulfil oversight responsibilities of sustainable development in a coordinated and focused manner across the Company. The Board is committed to stewarding long-term value for Todd and using sustainability as a lens to think about strategy, risk and future opportunities.

Todd has recently appointed a full-time sustainable development manager and an advisor to work with divisional sustainable development representatives to further operationalise the programme. The dedicated team will help ensure transparency on Todd's environmental, social, and economic impacts and that the programme is focused on the areas that are most material to stakeholders. With external advisory support, the team will progress several key workstreams in 2023, including completing an assessment of Todd's material topics and defining our intermediate emissions target.

Securing New Zealand's energy future

Today, Todd's core business is providing energy for New Zealand, which makes us a key player in New Zealand's transition to a low emissions economy. Our aim is to help ensure a secure and affordable energy supply as the country electrifies.

New Zealand needs natural gas as an important transition tool. The Government's Gas Transition Plan will help articulate the role of natural gas and the ongoing investment required to ensure it is available when needed. This means Todd's emissions will vary year on year in response to New Zealand's natural gas needs, but we are fully committed to reducing our emissions over time.

To continue to play our part in meeting New Zealand's energy needs, Todd is investing in major grid-scale solar, and we look forward to seeing these projects progress over the next 12 to 18 months. The Company is also engaging constructively with government agencies and Ministers to share sector knowledge and input into complementary workstreams and strategies to support New Zealand's transition to a low emissions economy.

Sustainability is a priority for the Board, and we are pleased to see the progress made across 2022 in advancing our sustainability journey.

We are committed to the stakeholders who are integral to our business and our ongoing focus is to ensure our sustainable development programme evolves in line with stakeholder expectations.



Nick Olson
Chair – Todd Corporation
Board of Directors



About us

Todd Corporation is a family-owned business headquartered in Wellington, New Zealand with over 100 years of operational expertise across multiple sectors. What began as a fellmongery and wool scour venture back in 1884 is today a vertically integrated company with investments in energy, minerals, property and healthcare.

Todd Energy produces around one third of New Zealand's natural gas from its onshore natural gas fields at Kapuni, McKee and Mangahewa, and through its 26% interest in the offshore Pohokura natural gas field. Natural gas provides around 20% of New Zealand's primary energy supply, providing households with instant heat, energy, and continuous hot water. Natural gas is also used commercially to heat and power businesses and as a feedstock for methanol and urea production.

Today Todd operates under three main business units – **Todd Energy, Nova Energy, and Todd Capital.**

Generator-retailer Nova Energy is a 100% owned subsidiary of Todd. It is the seventh largest electricity retailer in New Zealand and one of the largest wholesalers and retailers of natural gas – with ~35,000 retail customers who rely on natural gas. Nova Energy oversees Todd's solar projects both in New Zealand and the Pacific.

Todd Capital is a portfolio of businesses and investments in New Zealand, Australia, the United States and Canada and is the Company's vehicle for diversifying its investment base. Todd Capital invests across a range of sectors, including healthcare, property, technology and minerals.

As of 31 December 2022, Todd had:

1,000

employees across all its subsidiary businesses, with employees in New Zealand, Australia, Canada and the Pacific Islands.

801

employees within the main business entities covered in this report – Todd Energy New Zealand, TEC, Nova Energy, and Todd's corporate office in Wellington. This number also includes Todd Capital's New Zealand employees, out of scope for this report.



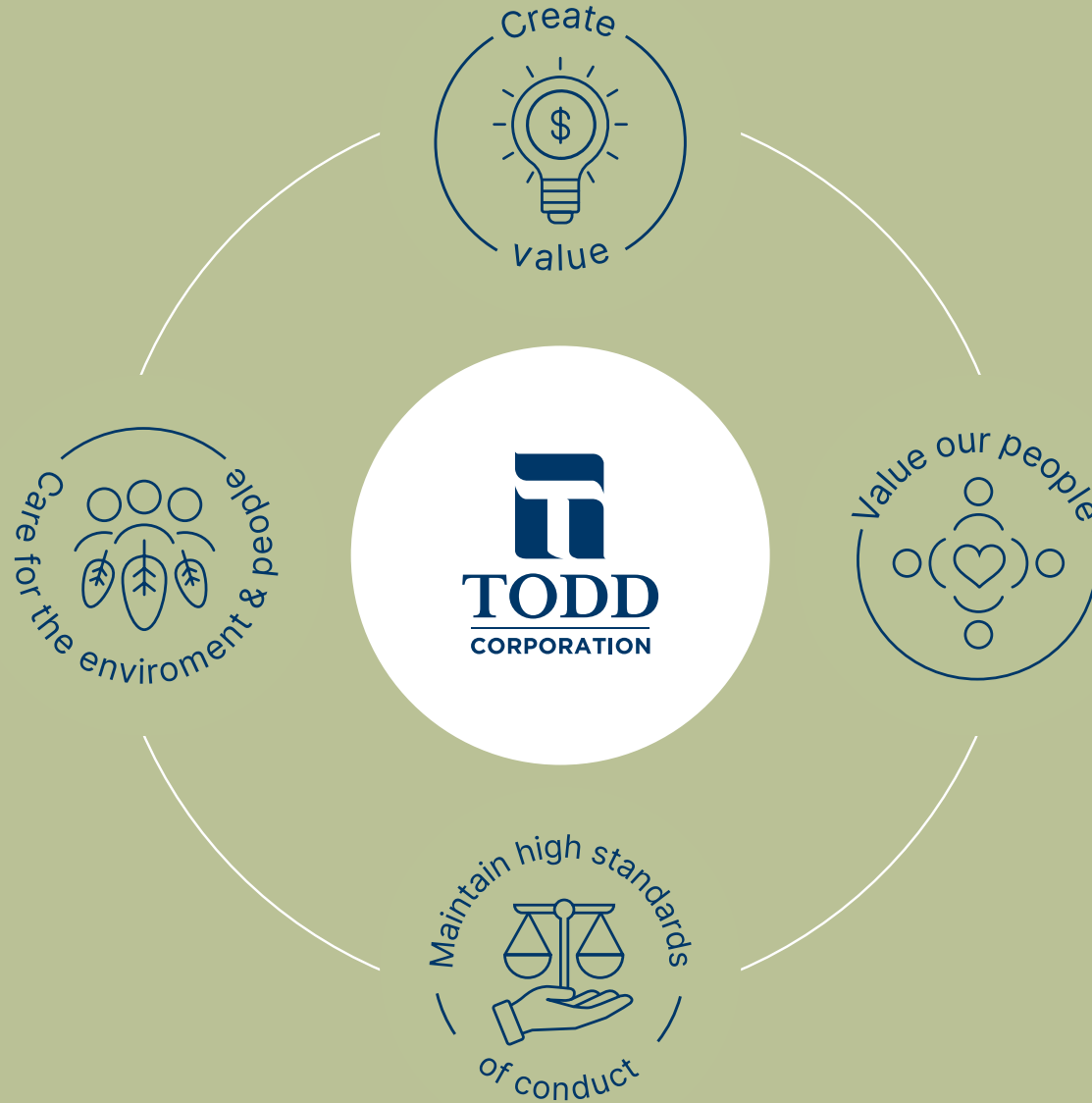
Todd Energy staff onsite at the Kapuni Production Station.



Our Operating Principles

Todd has been operating since 1884 and is one of New Zealand's largest family-owned companies.

We conduct our business activities in line with four Operating Principles.



Todd investments

Todd's interests include both operated businesses and investment holdings. Some Todd entities' detailed activities and operational metrics are excluded from this report, including those of Todd Capital.

Through its investments, Todd works in:



New Zealand natural gas

Development and production in New Zealand



Canada natural gas

Development and production in Canada



Wholesale and retail natural gas

And wholesale Liquid Petroleum Gas (LPG)



Wholesale and retail electricity

And electricity generation, including solar



Property development

Land development and commercial and residential projects



Healthcare products

Manufacturing and distribution



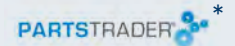
Mineral investments

In Australia and Canada



Other portfolio investments

Including technology



* Out of report scope

2022 key performance highlights



Winner of a Taranaki Regional Council Environmental Award for Environmental Leadership in Business for the 2021 Kapuni Stream erosion remediation project.



1.8

Total Recordable Injury Frequency Rate (TRIFR) based on approximately 2.7 million working hours. ZERO high consequence injuries.



Granted

resource consents (one currently subject to appeal) for the staged construction of the 400 MW Rangitāiki solar power plant.



Furthered

partnerships with indigenous communities through support, collaboration and biodiversity projects.



Joined

the Energy Resources Sector Net Zero Accord.



Todd's 1,000 ha land at Rangitāiki purchased in 2022. The site has the potential to host up to a 400 MW solar power plant.



Sustainable development

Sustainable development at Todd

Task Force on Climate-Related Financial Disclosures (TCFD)

Five-year targets



Todd's Kapuni assets in South Taranaki.



Sustainable development at Todd

The 2022 Sustainable Development Report is Todd's third report, and second published report, outlining the work across Todd to achieve sustainable development outcomes.

In 2023, Todd intends to revise its reporting approach in response to evolving disclosure requirements. GRI has refreshed its standards, has developed a GRI 11: Oil and Gas Sector 2021 standard, and has evolved its approach to determining materiality. New Zealand has also established a mandatory climate-related disclosure framework for relevant Climate Reporting Entities (CREs) in New Zealand. Whilst Todd is not a CRE under Aotearoa New Zealand Climate Standards, these standards provide an appropriate lens through which Todd can consider climate change related risks and opportunities.

While Todd is not required to follow the disclosure framework, it recognises the importance of this reporting to our key stakeholders.

To support this work, Todd now has a dedicated Group sustainable development team in place to work alongside existing divisional sustainable development personnel. In 2023 Todd's Group sustainable development team is developing a broader sustainable development work programme, the outcomes of which will be shared in subsequent reports.

The immediate objectives are to carry out a materiality assessment – including a review of Todd's material topics, establish an intermediate emissions target, and expand the Company's climate-related risks and opportunities disclosures to include scenario analysis.

Developing different scenarios will enable us to stress test our business model and corporate strategy, and help Todd contribute to a successful transition to a low emissions economy.





Materiality assessment

Todd included 10 material sustainable development topics in its inaugural 2020 report, which were carried through to our [2021 publication](#).

Since these topics were established, the concept of materiality has evolved and, in response, Todd will revise its material topics in 2023. We want to ensure our work programme is focused on the topics that are most impactful to stakeholders.

In anticipation of our materiality assessment, for this 2022 report we have reported on the material topics that represent our 2022 sustainable development focus. As a result, we have combined Energy and emissions with Climate change; and Water with Effluent and waste. Market presence and conduct; Honouring customers; and Tax practices are not covered in this report. A revised list of topics will be endorsed by Todd's Audit and Risk Committee (ARC) in 2023, with the Todd Board making the final decision on what will form the basis of Todd's material topics in our 2023 report.

For this 2022 report we have focused on five material topics:

1	2	3	4	5
Energy, emissions and climate change	Community contribution	Biodiversity and environmental management	Water, effluent and waste	Employee health, safety and wellbeing

A Todd Energy employee onsite at the Kapuni Production Station.





Todd's McKee Mangahewa Operating Facilities in North Taranaki.



The pathway to setting and achieving Todd's targets

Whilst Todd is taking the opportunity to revise its reporting and sustainable development programme, our day-to-day focus on sustainability across our operations continues.

In 2022, Todd committed to becoming a net zero company on its Scope 1 and 2 emissions by 2045 and, as highlighted in our [targets](#), has completed its second year of activities geared towards meeting our 2025 sustainable development targets.

The next steps on our journey are to define our pathway to achieving our net zero target, to set an intermediate target which will support our net zero commitment, and to provide greater transparency on our likely emissions profile over time.

At Todd, we understand that we cannot develop a net zero journey and transition plan in isolation. As a major New Zealand energy supplier, we have an important role to play in ensuring we can meet New Zealand's energy demands.

This means we need to consider gross Scope 1, 2 and 3 emissions and that our targets take into consideration both a science-based approach¹ and the Government's Gas Transition Plan. The Gas Transition Plan, which is due to be completed by the end of 2023, will outline the transitional role that natural gas is expected to play as New Zealand decarbonises. This will provide guidance as to the ongoing investment needed across Todd's natural gas fields to support the transition. As Todd and New Zealand's decarbonisation stories will be linked, Todd is engaging constructively with government agencies and Ministers to share sector knowledge and input into complementary workstreams and strategies to support the transition to net zero.

The intention is for Todd's intermediate emissions target to be approved by the ARC later in 2023 and shared in the 2023 Sustainable Development Report. The completion of Todd's materiality assessment will also provide an opportunity to refocus Todd's sustainable development goals, and the expectation is that we will be in a position to consider the development of further sustainable development targets towards the end of 2023 and into 2024.

¹ Note: as a producer of natural gas and condensate Todd cannot set a target under the Science Based Targets initiative (SBTi) as the SBTi is still developing guidance for companies with upstream oil and gas assets.

Task Force on Climate-Related Financial Disclosures (TCFD)

Todd introduced its approach to mitigating the risks associated with climate change to the Company in its 2021 report and shared its first TCFD reporting on the following four topics:



Governance

- ▶ Todd's governance around climate-related risks and opportunities

Strategy

- ▶ The actual and potential impacts of climate-related risks and opportunities on Todd's businesses and strategy

Risk management

- ▶ How Todd identifies, assesses, and manages climate-related risks

Metrics and targets

- ▶ The metrics and targets used to assess and manage relevant climate-related risks and opportunities

As climate-related financial disclosures are relatively new, Todd expects that as this area of reporting becomes more mature and standardised, expectations will change. Todd's approach to managing climate-related risks is therefore evolving and expanding.

In 2022, Todd focused its TCFD workstream on **Governance** in response to a corporate restructure. In 2023, Todd intends to focus on **Transitional Risk** which will involve developing three climate scenarios to stress test our business model and strategy.



All of Todd Energy New Zealand's operations are in the Taranaki region of the North Island.

Governance

Todd adopts robust corporate governance and management structures with consistent policies that apply across all parts of the business. This ensures Todd's business activities are aligned with Todd's Vision, Mission, Values, and the Group's Operating Principles.

Todd's Board and Executive regularly meet to discuss sustainable development and climate-related risk. The Todd Board governs Todd's approach to sustainable development, with the ARC now having formal oversight of the programme. The ARC, which meets four times a year, oversees the Group's sustainable development strategies and policies, including providing oversight on its governance framework, endorsing emissions targets and the Sustainable Development Report, reviewing climate-related risks and opportunities, and monitoring policy development. ESG matters, such as environmental compliance, employee safety, and diversity, equity and inclusion are also covered within the remit of the Board's Health, Safety, Environment and Culture Committee.

The Todd Executive coordinates and stewards the sustainable development programme. Going forward, this will be managed via a Sustainable Development Executive Steering Committee, which will provide a forum for Todd's Executive to provide oversight and guidance on the programme, and to ensure that Todd is delivering on its objectives. A core objective of this steering committee is the management of climate-change risks and opportunities.

The day-to-day management of sustainability matters sits with a wide range of teams and personnel across Todd. The Group CFO and Services of the Todd Corporation has executive responsibility for the sustainable development programme and team. The sustainable development team acts as an intermediary between the ARC and employees, with responsibility to work with divisional teams to ensure ARC endorsed outcomes are achieved. As ESG matters are not separate from other business matters, the focus of the sustainable development team going forward will be the creation and rollout of Todd's sustainable development strategy, systems, processes and advisory services.



The Todd Board of Directors. Back row (left to right): David Flacks, Rebecca Turner, Henry Tait, Tom Whyte. Front row (left to right): Michael Burtscher (Deputy Chair), Nick Olson (Chair), Sir Bill English.

Further evolution of governance is expected across 2023 as the sustainable development team becomes embedded across the Company.

2025 sustainable development targets

2022 is the second year of Todd's five-year target period. These targets, which are in line with the Company's Operating Principles, are integrated into our corporate objectives, and their achievement is tracked and overseen by the Board.

2025 TARGET

To visually represent our progress towards the five-year targets, we have introduced the 2025 TARGET symbol. This symbol is used throughout the material topics section.



Todd's material topics are aligned with 13 of the United Nations Sustainable Development Goals (UNSDG), demonstrating our commitment to creating a better and more sustainable future. At the beginning of each material topic, you will find the individual UNSDG icons, indicating our alignment with the respective goals.

* Target end date 2025.

** Progress against these targets was externally verified as part of Todd's SLL requirements.

Sustainable development topic	Todd Operating Principle	Five-year target*	2022 progress
Energy, emissions and climate change		Complete electrification of compression facilities which is expected to avoid 300,000 tons of CO ₂ e throughout the life of the compressors (estimate is for Todd's Scope 1 emissions and based on 2021 production profile)**	<ul style="list-style-type: none"> Mangahewa D site was in full operation March 2023 Mangahewa C site was in full operation May 2023
		Invest \$2m in flare metering across Todd Energy NZ production facilities	<ul style="list-style-type: none"> Flare metering project advanced in 2022 and is planned to be in operation from 2024
		Develop and implement a fugitive methane emissions programme at Todd Energy NZ	<ul style="list-style-type: none"> Field trials commenced in Q3 2022 and continued into 2023
		Invest \$120m in renewable energy over a five-year period to 2025 either directly or in aggregate with a partner**	<ul style="list-style-type: none"> \$12m invested in 2020; \$6.8m invested in 2021; and \$37m invested in 2022 after the Rangitāiki and South Island land purchases were settled Other activities focused on permitting, consent applications, early-stage design, and commercial and financing work programmes. These activities were significantly advanced by year-end 2022
Develop 100 MW of solar energy capacity either directly or with a partner**	<ul style="list-style-type: none"> Consent applications submitted for the Rangitāiki development for up to 400 MW 		
Indigenous community development		Double annual economic opportunity for local indigenous communities* **	<ul style="list-style-type: none"> In addition to existing ongoing relationships, Todd provided economic support to an additional seven tangata whenua entities for the first time in 2022
		Introduce a training and development programme specific to local indigenous communities working in local industry	<ul style="list-style-type: none"> In 2022 Todd Energy completed its Cultural Investment Strategy: Phase 1; Tangata Whenua o Taranaki Training and Development Plan
Biodiversity and environmental management		200% increase (30 ha) in biodiversity area planted and / or under management by 2025**	<ul style="list-style-type: none"> In 2022 1 ha of planting was completed and verified externally, and contributed toward the 2025 30 ha goal



Material topics

Energy, emissions and climate change

Community contribution

Biodiversity and environmental management

Water, effluent and waste

Employee health, safety and wellbeing

A Todd Energy employee at the McKee Mangahewa Production Station in Taranaki.





Material topic 1

Energy, emissions and climate change



1 NO POVERTY 	3 GOOD HEALTH AND WELL-BEING 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND



Nova Energy has made quick progress in establishing a solar position and is committed to helping provide clean electricity to Aotearoa New Zealand.

Five-year targets

Complete electrification of compression facilities which is expected to avoid 300,000 tonnes of CO₂e throughout the life of the compressors (estimate is for Todd's Scope 1 emissions and based on 2021 production profile).

Invest \$2m in flare metering across Todd Energy NZ production facilities.

Develop and implement a **fugitive methane emissions programme** at Todd Energy NZ.

Invest \$120m in renewable energy over a five-year period to 2025 either directly or in aggregate with a partner.

Develop **100 MW of solar energy** capacity either directly or with a partner.

Todd's emissions footprint

As a leading energy provider for Aotearoa New Zealand, Todd's activities have significant emissions. Todd is committed to helping New Zealand meet energy needs now and in the future in a way that supports the energy transition, while continually seeking to improve operational efficiencies.

As reported in our 2021 Report, Todd has set a net zero emissions target and in 2022 Todd Energy joined the Energy Resources Sector Net Zero Accord. This committed Todd Energy to support New Zealand's transition to net zero through continued Scope 1 and 2 emissions reductions and the development of an affordable, reliable, and low emissions energy system.

In 2022, total emissions across Todd Energy, Nova Energy, TEC and Todd's corporate office in Wellington totalled 4,258 kT CO₂e, an increase of 5% from 2021. This was predominantly due to increased production from the Kapuni natural gas field and increased operation of Nova Energy's natural gas peakers.

Scope 3 emissions, which are predominantly associated with the carbon embedded in the natural gas and condensate that Todd produces and sells, were not materially different from 2021. These emissions are linked to natural gas and condensate production and a reduction in New Zealand's natural gas production was offset by an increase in production in Canada.

Todd's Scope 1 emissions increased by 23%, or 205 kT CO₂e, due to:

1. Increased production from the Kapuni natural gas field. Kapuni natural gas has a CO₂ component that needs to be removed from the gas stream prior to sale. Whilst a proportion of this CO₂ is repurposed for other uses the majority is a by-product. The volume of CO₂ scales in proportion to the volume of natural gas produced and so increased production at Kapuni has increased Scope 1 emissions by ~180 kT CO₂e.
2. Nova Energy operated its natural gas fired peakers slightly more in 2022 than in 2021. Nova's generation emissions increased by ~30 kT CO₂e. The peakers are designed to turn on and off quickly to help maintain security of electricity supply when renewable generation cannot meet demand.



Todd Energy's Mangahewa C-site in Taranaki.

2022 highlights

- Todd Energy signed up to the Energy Resources Sector Net Zero Accord
- Nova Energy completed preliminary technical work for its Rangitāiki solar power plant, was granted resource consents (one currently subject to appeal) for the staged construction of a 400 MW plant, and settled a South Island land purchase suitable for solar development
- Todd Energy commenced construction of electric compression facilities at two Mangahewa wellsites

Todd Energy staff onsite at the Kapuni Production Station.



In Todd's view, some ongoing variability in Scope 1 emissions is expected because New Zealand needs natural gas to ensure a secure energy supply during the transition. This is supported by analysis from New Zealand's Climate Change Commission² which modelled a new natural gas field coming to market from 2025 in their net zero demonstration pathway.

Todd Energy and other upstream producers will need to continue to invest in existing natural gas fields as New Zealand transitions. This investment will ensure there is natural gas for peaking generation and for industrial sectors at the beginning of their decarbonisation journey that will be reliant on natural gas until lower emission alternatives are available.

Todd is committed to reducing its emissions over time. A key workstream in 2023 will be to establish intermediate gross emissions targets for Scope 1, 2 and 3. Intermediate targets will underpin Todd's emissions reduction pathway.

² Technical Annex 2: ENZ Modelling; NZ ETS unit limits and price control settings for 2023-2027 (Jul 2022), Climate Change Commission



Todd Energy offered free Bee cards in 2022 to encourage staff to use the local bus service out to Kapuni, as well as to and from work.

Table 1: Summary of Todd's GHG emissions inventory (kT CO₂e)

Todd Region	Scope 1			Scope 2			Scope 3			Total		
	2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
New Zealand	1,082	879	1,014	4	3	3	2,765	2,868	3,478	3,850	3,750	4,495
Canada	14	12	Not reported	NIL	NIL	Not reported	394	293	Not reported	408	305	Not reported
Total	1,096	891	1,014	4	3	3	3,159	3,161	3,478	4,258	4,055	4,495



Scope 1 emissions projects

Todd Energy is continually investigating ways it can more accurately measure and reduce its operational emissions. In addition to the projects included in our five-year targets, there is an ongoing focus on increasing efficiency, upgrading and electrifying equipment where possible, and reducing the emissions of new projects.

Electric compressors

2025 TARGET

Todd Energy is progressing workstreams to electrify compression at various wellsites. Construction of compressors on two Mangahewa wellsites commenced in the second quarter of 2022 and the compressors are now operational. The new compressors, which run off electricity instead of natural gas, avoid ~8 kT of Scope 1 tCO₂e emissions per operational year – equivalent to the removal of almost 3,000 vehicles from our roads each year.



The tie-in valves installed on pipelines at KGTP in 2022.



Fugitive emissions

2025 TARGET

In 2022, two technologies were trialled at Todd Energy sites to routinely screen and measure fugitive emissions. The intention is to accurately identify the source of these emissions then implement a reduction project through Todd Energy's asset integrity workstreams. Todd Energy intends to trial a third technology in 2023.

As these emissions are small and hard to quantify it is important to test various options to ensure accuracy before finalising a preferred option.

The work scope excludes TEC which already conducts fugitive emissions surveys.

Since 2020, Todd has researched ways to identify and eliminate fugitive emissions from its New Zealand production facilities.

Flare metering

2025 TARGET

Across 2022 Todd Energy spent ~\$300,000 upgrading flare metering for its New Zealand operations. The majority of the spend was associated with the engineering design and construction of tie-in valves for installation of a flare meter at the Kapuni Gas Treatment Plant. The ability to install a meter whilst the flare system is operational simplifies the installation process and prevents third-party supply disruption. Upgraded metering at the Kapuni Gas Treatment Plant will also provide enhanced visibility on future emission reduction projects.

Todd Energy also spent an additional ~\$150,000 on upgrading fuel use and sales point metering. This is predominantly associated with installing new gas chromatographs at Pohokura to enable more accurate measurement of the energy and emissions embedded in the natural gas sold by Todd Energy from this field.

TEC is required to provide methane emissions reduction and greenhouse gas reports to the British Columbia Government once a year and has appropriate metering to fulfil these requirements.

See [Table 9](#) of the Appendix for Todd's flaring data.

Low emissions energy projects

Todd's solar investment

2025 TARGET

Todd views grid-scale solar as playing an important role in New Zealand's and Todd's future as the country transitions away from fossil fuels.

Transpower, New Zealand's national grid owner has highlighted that New Zealand will need to build enough generation to support a 67% increase in electricity demand out to 2050³. Todd intends to contribute towards helping New Zealand achieve this by investing in grid-scale solar, generating additional renewable electricity for New Zealanders.

Nova Energy is driving Todd's solar investments. In 2021 Nova began developing its Rangitāiki solar power plant. The Rangitāiki project, located 35 km from Taupō, involves staged conversion of a ~1,000 ha farm into a 400 MW solar power plant.

Once fully developed the solar plant is expected to produce enough electricity to power 100,000 kiwi homes and, due to space between the panels, the underlying land will remain suitable for planting or stock grazing, supporting rural jobs. In 2022, Nova Energy completed the preliminary technical work, commenced the construction contract procurement, concluded the Transpower Works Agreement and applied for the appropriate resource consents. Five of the six resource consents were granted, with one consent granted then appealed by an individual. Due to the appeal, the outcome of the consenting process will not be known until later in 2023.

Nova Energy also completed the purchase of a ~900 ha farm in the South Island adjacent to a Transpower substation. Feasibility and engagement work is underway, with the property having capacity for a solar power plant of up to 300 MW.

In 2022, Nova Energy produced 5,014 MWh of solar energy in New Zealand, an 80% increase from 2021. This increase was due to 2022 being the first complete calendar year that Nova Energy's 2.1 MW Kapuni Solar Plant was operational (commissioned in June 2021).

Carbon Capture, Utilisation and Storage

During 2022 Todd carried out a technical evaluation to assess the feasibility of CCUS. Todd has assisted government workstreams to understand the technical viability and potential paths to implementation in New Zealand. The outcome of this work will feed into the Government's Gas Transition Plan.

Todd agrees with other industry experts⁴ that CCUS has an important role to play in decarbonising the global economy, and we are supportive of further work to enable implementation of the technology.

Other projects

Todd continues to expand low emissions energy options for its customers. Grid-scale solar is a key focus for the Company and, in parallel, Nova Energy is looking at ways to work with customers to reduce emissions. In 2022 Nova Energy:

- Spent \$37 million on renewable investments, predominantly associated with land purchases related to grid-scale solar projects
- Worked with other gas network companies to progress a hydrogen blending trial in a gas distribution network. This work has been led by Firstgas and the trial is expected to proceed in the second half of 2023



Nova Energy's 32 kW pilot solar plant at Rangitāiki, January 2022.

³ Whakamana i Te Mauri Hiko – Empowering our Energy Future (Mar 2020), Transpower

⁴ Net Zero by 2050 A Roadmap for the Global Energy Sector (Oct 2021), International Energy Agency



The Sunergise International Tongatapu Solar Plant in Tonga.

Solar in the Pacific

Sunergise International, which is majority owned by Todd, celebrated 10 years of operation in 2022. The operational highlight was the completion of a new 6 MW solar plant in December 2022 in Tonga, which is located across three separate sites on Tongatapu Island.

The solar plant was built with the support of a power purchase agreement with Tonga Power Limited and will assist the government of Tonga to pursue its National Energy Roadmap. The National Energy Roadmap aims to have 70% of Tongatapu's electricity generation sourced from renewables by the end of 2025.



The opening of the Tongatapu Solar Plant attended by Tongan King Tupou VI, November 2022.

The Tongatapu Solar Plant is the largest in the South Pacific and will produce enough energy to displace 18% of Tongatapu's current diesel-power generation. Its construction created jobs for local civil, mechanical and electrical contractors.



Material topic 2

Community Contribution



St Joseph's Primary School students pot seedlings as part of the Trees for Survival project, sponsored by Todd Energy.

Five-year targets

Double annual economic opportunity for local indigenous communities.

Introduce a training and development programme specific to local indigenous communities working in local industry.



Todd is an engaged and invested participant in the communities it operates alongside and respects the cultural diversity, values, and self-determination of our stakeholders. Todd relies on its local communities to operate effectively and strives to positively contribute to those communities by providing engagement and development opportunities.

Through its business activities, Todd seeks to develop meaningful relationships with local indigenous communities and aims to support them in areas that matter most to them, such as employment, biodiversity, education and development.

Todd Energy launched a community survey in 2022 to better understand how the Taranaki community wants to be engaged with. Feedback was received from neighbours, tangata whenua and other stakeholders, and changes were made to community engagement methods, including changing to electronic notifications (email, text) rather than hard copy mailed letters.

2022 highlights

- TEC began engagement with one additional First Nations community
- Todd Energy launched its Sustainability in our Communities Framework which guides sponsorship and community investment decisions and replaces the Energy in the Community Framework
- Nova Energy appointed a Cultural Advisor and Cultural Advisory Committee for its Rangitāiki solar development



Spring time at the Kapuni Solar Plant in South Taranaki.



Todd Energy's Sustainability in our Communities Framework

In 2022 Todd Energy launched its new Sustainability in our Communities Framework, which replaces the Energy in the Community Framework outlined in Todd's 2021 Sustainable Development Report. The new framework details six pillars which will be the focus of Todd Energy's future partnership and sponsorship decisions.

South Taranaki's Matapu School students, employees and neighbours, Taranaki Bull's players, and Todd Energy employees planted natives as part of a multi-year partnership to regenerate a wetland on a farm neighbouring the school.

The six pillars are:

1

Community mental health and wellbeing

In 2022 this included support for:

- ▶ **WISE Healthy Homes Initiative** to improve the health rating of homes of children with chronic respiratory issues. In 2022 Todd Energy co-funded the remediation of 30 unhealthy homes.
- ▶ **Taranaki Retreat's life coaching and suicide prevention programmes** and providing a solar array for the Retreat building.



2

Child and youth wellbeing

In 2022 this included:

- ▶ **Continuing Todd Energy's longstanding relationship with South Taranaki's Matapu School**, including supporting biodiversity and engineering education projects.
- ▶ **Further developing Todd Energy's relationship with Waitara's Manukorihi Intermediate School** through support for its Ngā Mātāwaka Hapai mentoring programme and conducting a joint planting day.
- ▶ **Continued sponsorship of the New Plymouth District Council's school water safety programme** and the naming rights sponsorship of New Plymouth's Todd Energy Aquatic Centre.



Matapu School calf day which Todd Energy employees supported by running a fundraising BBQ.

3

Environment and biodiversity

In 2022 this included support for:

- ▶ **Trees for Survival's expansion into Taranaki**, helping the initiative expand to include five schools in north Taranaki.
- ▶ **East Taranaki Environmental Collective's work** in the Everett Park Scenic Reserve.
- ▶ **Ngāti Mutunga's work** in the Taramoukou Conservation Area.

See [Material topic 3 – Biodiversity and environmental management](#) for more information.



4

Education and training

In 2022 this included:

- ▶ **Expansion of the Todd Energy Cultural Development and Education Programme.** In 2022 funding was provided to support tertiary education for rangatahi, first aid training, tikanga and te reo wānanga, educational grants and strategy building.
- ▶ **NZQA-accredited catering and first aid training** for local tangata whenua.
- ▶ **Developing a free groundwater hydrology education platform** together with the Taranaki Regional Council for use in schools, the community, and throughout the country.



5

The Energy industry



Todd supports industry initiatives that:

- ▶ **Positively raise the profile of the energy industry** in New Zealand, reduce emissions and increase energy education.
- ▶ **Reduce energy hardship for New Zealanders** such as Todd Energy's support for WISE Taranaki, and Nova Energy's continued participation in various initiatives lead by the Electricity Retailers Association New Zealand (ERANZ) that are designed to support vulnerable consumers. This includes the EnergyMate programme and Low Fixed Charge (LFC) Transition Power Credits Scheme.



A Nova Energy employee checking the solar panels at the Kapuni Solar Plant in South Taranaki.

6

Tangata whenua o Taranaki

- ▶ **In 2022 Todd Energy completed Phase 1 of its Cultural Investment Strategy** and continued its long-term support for tangata whenua.



Cultural Investment Strategy

2@25 TARGET

Todd Energy completed its Cultural Investment Strategy: Phase 1; Tangata Whenua o Taranaki Training and Development Plan in 2022. This plan outlines Todd Energy's actions specifically designed to stand alongside tangata whenua, helping to support them in achieving their goals and aspirations and, in turn, helping to create an inclusive and equitable Taranaki community.

Analysis of data collected for this Phase 1 Plan confirmed Taranaki Māori are disproportionately and negatively impacted when it comes to key factors including poverty, unemployment, education and other societal wellbeing inequities. Phase 2 will include fulfilling actions identified in the Plan, which will occur in 2023 and 2024.

Supporting Tangata Whenua o Taranaki initiatives and development

2@25 TARGET

2022 support included:

- The Ōwae Marae wharekai development**
 Waitara's Ōwae Marae, the principal marae for Te Atiawa Iwi, has served many years as a significant national and regional meeting place. In 2022 the marae's wharekai (its kitchen and dining facility) received a major update, which Todd Energy supported.

- Otaraua Hapū plant nursery**

2022 saw Todd Energy's continued support of the Otaraua Hapū nursery development. The planning stages were near completion in late 2022 and construction is anticipated to begin in 2023.

- Ngāti Mutunga and the Taramoukou Conservation Area**

Todd Energy committed a further three years of support to Ngāti Mutunga for the Taramoukou Conservation Area biodiversity project. This builds on past support for the development of tracks and trap lines in the area.

- Biodiversity projects**

Local tangata whenua were engaged to plan and implement four biodiversity projects on Todd owned land in north Taranaki. [See Material topic 3 – Biodiversity and environmental management.](#)

Cultural awareness training

In 2022 Todd Energy continued with its in-house Cultural Awareness Initiative, launched in 2021. This included providing in-house Te Reo Māori courses to employees, in-house tikanga training to senior managers and community employees, and the launch of an online cultural induction for all new employees and contractors. The induction was created in partnership with local tangata whenua to ensure local te aō Māori principles and beliefs were accurately represented.



The new Ōwae Marae wharekai, near completion in early 2023.



In October 2022, Todd Energy signed a three-year partnership extension with Te Rūnanga o Ngāti Mutunga. The partnership will enable the continuation of the existing Taramoukou Conservation Area biodiversity project and the launch of new freshwater projects.

Nova Energy and Todd Energy Canada engagement with indigenous communities

Nova Energy engagement with tangata whenua o Rangitāiki

In 2022, Nova Energy's indigenous engagement objective was establishing itself in a new community – the Taupō region. The engagement was focused on establishing relationships, developing an understanding and alignment of values and seeking feedback on the Rangitāiki solar project for the resource consenting process. Nova Energy engaged with five iwi and associated hapū during project development, informing members on current design and seeking input on environmental and employment opportunities. Nova Energy held regular hui and site visits with iwi and hapū to develop trust and understanding regarding each other and the Rangitāiki solar project.

Nova Energy engaged a member of Ngāti Hineure Hapū as a cultural advisor to the project and formed a Cultural Advisory Committee, comprising members of Ngāti Tūwharetoa and Ngāti Tutemohuta, to promote the relationship and commitment to ongoing engagement and cooperation.

Key objectives and outcomes include:

- Inclusion of employment and training programmes in the construction contractor selection process to maximise indigenous employment opportunities.
- Sourcing of plants via an indigenous owned nursery.
- Introduction to indigenous owned service providers and engagement of those service providers for the biodiversity planting and maintenance activities.
- Consultation on the development of resource consent plans with iwi and hapū (ecological management and fish management).

Todd Energy Canada's Birch site in Northeast British Columbia.



Todd Energy Canada community engagement in Birch, British Columbia

TEC's Birch field is located in the Blueberry River First Nations (BRFN) and West Moberly First Nations (WMFN) traditional territories. The BRFN and WMFN are TEC's key indigenous communities.

In 2022 the British Columbia Government and BRFN negotiated changes to the regulatory framework. This was the result of the BRFN winning a provincial Supreme Court case about the ability to exercise treaty rights due to the cumulative effects of industrial development in the Nation's traditional territory. This dispute caused uncertainty around the regulatory framework in which TEC operates and conducts its engagement with the BRFN. An agreement was announced in early 2023.

In 2022 TEC interacted regularly with the BRFN and WMFN communities through formal and informal meetings, sponsorship and support initiatives.

TEC has a framework for supporting local First Nations communities which has four focus areas:

- Advancement of education
- Development of youth
- Health and wellness
- Exercising heritage and tradition

In 2022 Todd Canada supported four key First Nation initiatives:

- The four-day BRFN Cultural Camp
- The WMFN community and cultural celebration
- The Halfway River First Nations rodeo and cultural event, which is highly attended by the BRFN and WMFN communities.
- The BRFN and WMFN Christmas community events

Where possible, TEC engages first nations vendors and contractors. In 2022 it worked with the BRFN to provide guidance on vendor compliance required, such as HSE history and insurance needed to successfully bid for contracts to provide services to TEC for its operations and field development.

2022 community engagement



Todd Energy

- 4 Kapuni Community Advisory Group events
- 1 Kapuni Open Community Meetings
- 2 Tikorangi Community Consultation Forums
- 2 Tikorangi Open Community Meetings
- 4 Quarterly Community Newsletters
- 3 Tangata Whenua Forums
- Regular (weekly as required) meetings with various tangata whenua groups



Todd Energy Canada

- Visits to households close to the Birch field as part of the Emergency Response processes.
- 2 Blueberry River First Nations Chief and Council meetings
- 2 West Moberly First Nations Chief and Council meetings



Nova Energy

- 1 Junction Road Power Plant neighbours site tour
- 5 meetings with tangata whenua and local community members for Rangitāiki solar project as well as required informal catch-ups
- A number of site tours with iwi



Material topic 3

Biodiversity and environmental management



Members of Otaraua Hapū hand weeding near the Mangahewa Awa, May 2022.

Five-year target

**200% increase
(30 ha) in biodiversity**
area planted and / or
under management
by 2025.

Biodiversity best practice at Todd

Todd commits to achieving a net gain of biodiversity in the areas where it operates by 2025.

One hectare of biodiversity was planted and verified towards Todd's five-year target in 2022, and 9 ha of verified planting is planned for 2023. 10 ha respectively is planned for 2024 and 2025. These planting areas will be externally verified to meet the commitment, and additional biodiversity projects may be completed beyond these plans.

Todd Energy and Nova Energy plan and implement biodiversity projects using best practice methods to ensure maximum environment and/or community

benefits. This includes conducting projects in partnership with local tangata whenua wherever possible. Todd Energy places immense value on these partnerships and has an aspirational goal to conduct all biodiversity projects in partnership with tangata whenua, allowing maximum biodiversity benefits based on te ao Māori, mātauranga Māori, and in-depth local knowledge.

This approach provides economic and social development opportunities to local tangata whenua which is a key focus of Todd Energy's Sustainability in our Communities Framework. Where possible, biodiversity and environmental projects are also designed to incorporate community education opportunities.

The four case studies in this section outline projects conducted in partnership with tangata whenua and in many cases, landowners, councils, experts, schools and other community members.



The solar demonstration plant constructed at Rangitāiki in January 2022.



2022 highlights

- Planted approximately 11,000 native plants on Todd held land
- Partnered with local tangata whenua to implement five biodiversity projects in North Taranaki and Rangitāiki, and committed long-term support for two community and tangata whenua led North Taranaki biodiversity projects
- Todd Energy was awarded the 2022 TRC Environmental Award for Environmental Leadership in Business for its 2021-2022 Kapuni Stream erosion remediation project

Biodiversity projects and the New Zealand consenting process

The biodiversity projects Todd Energy and Nova Energy conduct in New Zealand fall into three categories in relation to consent conditions and offsetting or mitigating the direct effects of activities.

The categories are:

Biodiversity projects that are required as a consent condition:

These projects are the minimum required to offset or mitigate any potential direct effects from consented or proposed activities. Projects may include visual amenity boundary planting, planting to replace plants removed during a project or biodiversity enhancement required to offset effects from a stream culvert. Project plans and their implementation require certification from the regulator.

Biodiversity projects that go above and beyond offsetting the direct effects of a consented activity:

This includes projects that have consent conditions but go above and beyond what is required to offset or mitigate the direct effects of the consented activity. These consent conditions are often volunteered by Todd during the consent application phase and may be based on feedback/requests from the community or tangata whenua during consent related engagement.

Voluntary projects: These projects are not required under consent processes or conditions and go above and beyond the offsetting of any direct impacts of Nova Energy or Todd Energy operations. They are often linked to Todd's wider biodiversity enhancement strategies and tangata whenua partnerships.

The biodiversity and planting projects which will contribute towards Todd's five-year 30 ha planting target will be predominantly voluntary and above and beyond what is required to offset a consented/proposed activity. Some minor projects that are required under consent conditions to offset the direct impact of a consented activity, such as roadside planting, may also be included but are anticipated to be a minor proportion.



A Matapu School and Todd Energy planting day on a wetland neighbouring Matapu School in South Taranaki.



Case study 1



Native planting at Rangitāiki, September 2022

Biodiversity protection at Rangitāiki

Nova Energy conducted significant biodiversity protection and enhancement at the ~1,000 ha Rangitāiki farm purchased in 2022 for the purpose of solar development. This solar project is currently in the consenting phase with the outcome of the consenting process expected to be known later in 2023.

All 2022 work was voluntary (i.e., not part of consent conditions) and included:

- Fencing and stock exclusion of over 7.7 ha of farmland, including a 1.9 ha block containing a locally significant Priority Biodiversity Area
- Weed control and planting of 3,050 native plants around the working farm's two effluent ponds, roadside, and part of the newly fenced 1.9 ha block

The Rangitāiki land is adjacent to the Matea Road Wetland and the Otangimoana Stewardship Area traverses the land. Both are graded as a Priority Biodiversity Site by Bay of Plenty Regional Council. Future biodiversity projects will focus on creating a biodiversity corridor between these high value biodiversity sites.



Case study 2



New biodiversity planting at the Mangahewa C wellsite.

Biodiversity enhancement at Mangahewa C wellsite

2025 TARGET

The Mangahewa C wellsite biodiversity project began in 2022 with the fencing, weeding, stock exclusion and planting of 1 ha of steep, erosion prone grazed land and an associated wetland and riparian margin. About 2,600 pioneering native species have been planted.

In the longer-term, a variety of biodiversity enhancement opportunities will be considered, potentially covering 5 to 8 ha. In the future this project may be related to consent conditions associated with a Mangahewa C wellsite expansion, however, all activities in 2022 were voluntary.



Case study 3



Biodiversity planting at the Mangahewa Awa near MMPS.

Protecting the Mangahewa Stream

This project commenced in 2018 with the planting of an extended riparian margin of the Mangahewa Stream near the MMPS carpark. This project is voluntary; however, some aspects of the work were designed to ensure legacy ground contamination in a small spot near the stream caused by a previous operator in the 1980s does not erode into the stream and cause further environmental damage.

2022 saw the implementation of Phase 1 of a two-year integrated biodiversity project designed and implemented by Otarua Hapū on Todd Energy's behalf. Work included planting of 260 natives, extensive weed control, stream clearing, erosion control, the development of a pest control network, water testing, and planning for the enhancement of fish passages.



Case study 4



Matapu School students enroute to checking the newly established tradiscantia beetle population at McDonald's Glen.

Protecting McDonald's Glen KNE

McDonald's Glen is located on a Todd Energy owned farm near the Kapuni J wellsite. At 2.4 ha, the Glen – designated by the TRC as a Key Native Ecosystem (KNE) – is the largest tract of native bush locally. The Kapuni Stream runs through the Glen and transects the KGTP site 2.7 km downstream.

Encompassing neighbouring land, Todd Energy's McDonald's Glen biodiversity project is about 4 ha. 2022 activities included planting of over 600 natives to infill the Glen's understory and boundaries and weed control. This work was conducted in conjunction with the TRC and was completed in accordance with the Farm's TRC Riparian Plan.

Community biodiversity partnerships in 2022

In 2022 Todd Energy commenced and continued multi-year support for two significant community-led biodiversity projects located near its McKee Mangahewa operations.

Taramoukou Conservation Area

The 1637 ha Taramoukou Conservation Area, located 1.5 km from MMPS, is a significant tract of high biodiversity bush in North Taranaki. Ngāti Mutunga iwi manage this bush through a conservation project called Te Kōhanga Āhuru which aims to increase large scale kiwi habitat in North Taranaki.

Todd Energy co-funded Taramoukou track and trap line development in 2021 and in 2022 signed a three-year partnership with Te Rūnanga o Ngāti Mutunga to support further biodiversity and environmental projects. In 2022 MMPS employees commenced monthly trap line clearing, which has reduced Te Kōhanga Āhuru employees' workload and will continue in the foreseeable future.

The Everett Park Scenic Reserve

At 85 ha, the Everett Park Scenic Reserve is a significant local podocarp forest remnant located near Todd Energy's McKee Mangahewa operations. Todd Energy's involvement with biodiversity projects in the reserve started in 2018, and in 2022 it committed to three years of funding to support the East Taranaki Environmental Collective to establish a pest control network in the reserve.



An East Taranaki Environment Collective employee checking traps in the newly established Everett Park Scenic Reserve trap network, which was developed with multi-year support from Todd Energy.



Material topic 4

Water, effluent and waste



The Kapuni Awa flows through Todd Energy's Kapuni operations.



2022 highlights

- Todd Energy's New Plymouth Office (NPO) achieved 'Gold' status in the New Plymouth District Council's Resource Wise Programme, with 82% of waste diverted from landfill.
- Todd Energy and Nova Energy implemented biodiversity projects that focused on enhancement and protection of freshwater ecosystems through riparian margin, wetland and hillside fencing, stock exclusion and planting. See [Material topic 3 – Biodiversity and environmental management](#).
- TEC and its Joint Venture partner recycled a total of 3.8 ML of well stimulation water by recovering it after stimulation activity and reusing it in a subsequent campaign.

Todd's operations and offices use and discharge water and generate waste and effluent in various ways. Throughout the Company in 2022, efforts were made to understand and reduce Todd's environmental footprint in these areas.

Waste

In 2022, Todd's businesses generated both non-hazardous and hazardous waste, with all waste either reused, recycled or disposed of at accredited disposal facilities. No significant waste related environmental impacts were reported. However, TEC recorded one spill of 700 L of hydrochloride acid (HCL) at a Birch Field wellsite. The spill was contained onsite, immediately cleaned and not absorbed into the frozen ground.

A key focus of 2022 was building robust Todd Energy waste baselines to ensure quality data is available to measure the effectiveness of waste reduction projects. Nova Energy focused on mapping its waste streams and working with waste service providers to obtain better quality data. Generating a Nova Energy waste baseline is the focus of 2023. Todd Energy's baselines were generated through the following means:

- Site waste inventories, in which all aspects of a site's waste streams were mapped, including the end destination
- Site waste audits, which include piece-by-piece analysis of waste generated at a site in a single day
- Detailed analysis of waste service provider data and gaps in it and working with waste service providers to remedy these

Alongside baseline generation and quality control, waste minimisation and landfill diversion projects were implemented or were ongoing throughout Todd in 2022.

2022 highlights include:

- Achieving 82% diversion of waste at NPO resulting in being awarded a 'Gold' award as part of the New Plymouth District Council's Resource Wise Programme. The NPO joined in 2021 and initially achieved 'Bronze' with a 43% diversion rate. Projects implemented in 2022 included introducing composting in the office, and an intensive internal communication campaign. The 39% uplift in landfill diversion represents an additional ~3 to 4 tonnes of waste diverted from landfill annually

- Recycling ~ 70 MT of scrap metal
- Recycling ~100 MT of clean well stimulation sand as clean fill rather than disposing it to landfill
- Todd Energy commenced three years of support of the New Plymouth-based On the House charity, which saves food from landfill and redistributes it to those most in need.



Table 2: Todd Energy waste summary for 2022
(refer to the Appendix for more detailed information)

Waste disposed	2022	2021	2020
Non-hazardous material to landfill	409 MT	309 MT	Not reported
Hazardous material to appropriate disposal	155 MT	177 MT	164 m ³
Drilling mud and cuttings to landfill	0 MT	0 MT	Not reported
Produced Water	302* ML	273* ML	264 ML
Material diverted from landfill	7,982 MT	12,135 MT	Not reported

* These values are derived from DWI values. 2021 values differ from those in the 2021 Report due to improved accuracy of our data sets and inclusion of drilling mud and cuttings that are bioremediated under material diverted from landfill.

Table 3: Todd Energy Waste diverted from landfill
(refer to the Appendix for more detailed information)

Land fill diversion waste description (MT)	2022	2021
Paper, cardboard, plastics, etc.	36	46
Composted material	4	2
E-Waste	1	1
Scrap metal	70	112
Unused well stimulation sand	100	0
Drilling mud and cuttings	7,758	11,970
Recycled waste oil	13	4
Total	7,982	12,135

Some 2021 values differ from 2021 Report due to improved accuracy of our data sets and inclusion of drilling mud and cuttings that are bioremediated.

Water and effluent

Water is tāonga – a precious resource that everyone should have access to, enjoy and look after. Todd's business operations rely on an ongoing supply of fresh, quality water, and we recognise we have a responsibility to conserve it where possible and minimise our impact on the health of our freshwater ecosystems.

Todd uses water from consented or permitted stream, bore and dam takes, as well as from various reticulated/potable supplies. All water take consents/permits impose limits on the amount of water taken and the rates at which it is taken. No water was taken from areas under water stress.

Todd discharges water through a variety of permitted or consented pathways, including contaminated water discharges to subsurface aquifers through deep well injection, discharge of sewage into sewage networks or site-based septic systems, discharge of processed and cleaned stormwater into water and land via cleaning and interceptor systems, and by sending contaminated water to be processed by accredited contractors. All discharges are consented or permitted and have set limits that may include discharge quantity and quality limits.

In 2022 no major water or effluent related impacts were reported.

Freshwater stewardship

Todd Energy and Nova Energy are on a journey of improved freshwater stewardship, which includes developing water use reduction initiatives, increasing local water quality and educating employees and contractors on the critical importance of water conservation and protection. In 2022 a key focus was building robust water use baselines for all Todd Energy and Nova Energy sites.

To improve their future freshwater stewardship, Todd Energy and Nova Energy will be working more closely with tangata whenua, seeking guidance in matters of tikanga and mātauranga Māori in water-related projects.



Todd Energy employees, freshwater experts and Otaraua Hapū members inspect a fish passage at the Mangahewa Awa near MMPS.



The Kapuni Awa at McDonald's Glen.

Todd's key water activities in 2022 included:

- The implementation of Todd Energy and Nova Energy biodiversity projects that support the enhancement and protection of freshwater ecosystems. These projects are described in more detail in [Material topic 3 – Biodiversity and environmental management](#)
- TEC, together with its joint venture partner, recycled a total of 3.8 ML of well stimulation water, recovered during flow back at the Birch field well stimulation operations. Rather than being disposed of by Deep Well Injection this water was used by TEC's joint venture partner for well stimulation at one of its nearby operations, reducing the need to take more water for this operation
- Todd Energy collaborated with key tangata whenua on a number of awa enhancement projects during 2022, such as the Mangahewa Awa enhancement, Kapuni Awa restoration, and MHW C and D biodiversity/awa enhancement concepts. Todd Energy's understanding of tangata whenua perspectives will continue to develop through these processes, and through the creation of Kaitiaki Forums and Collaboration Agreements, which will inform future versions of the Water Management Strategy.



A highlight for Todd Energy in 2022 was winning a TRC Environmental Award for Environmental Leadership in Business for the Kapuni Awa erosion restoration project.

Todd's water use increased annually between 2020 to 2022 (see Table 4), predominantly due to Todd Energy's increased KGTP operations and increased water use at Nova Energy's Fonterra Cogeneration Unit. The 2021 and 2020 values reported here vary slightly from those reported in our 2021 Sustainable Development Report.




This reflects the increased accuracy and completeness of the datasets as we work to improve our baseline data, an example of which is the key water take data missing in Nova Energy's 2021 and 2020 datasets which was measured and accounted for in the 2022 year.

Table 4: Todd water withdrawn from all sources in 2022 (ML) (refer to the Appendix for more detailed information)

Site	2022	2021	2020
Todd Energy	796	690	590
Nova Energy	381	246*	302
TEC	13	6	7
Total water	1,190	942	899

* Incomplete data with Nova Energy's Fonterra Cogeneration Unit withdrawal values not available.

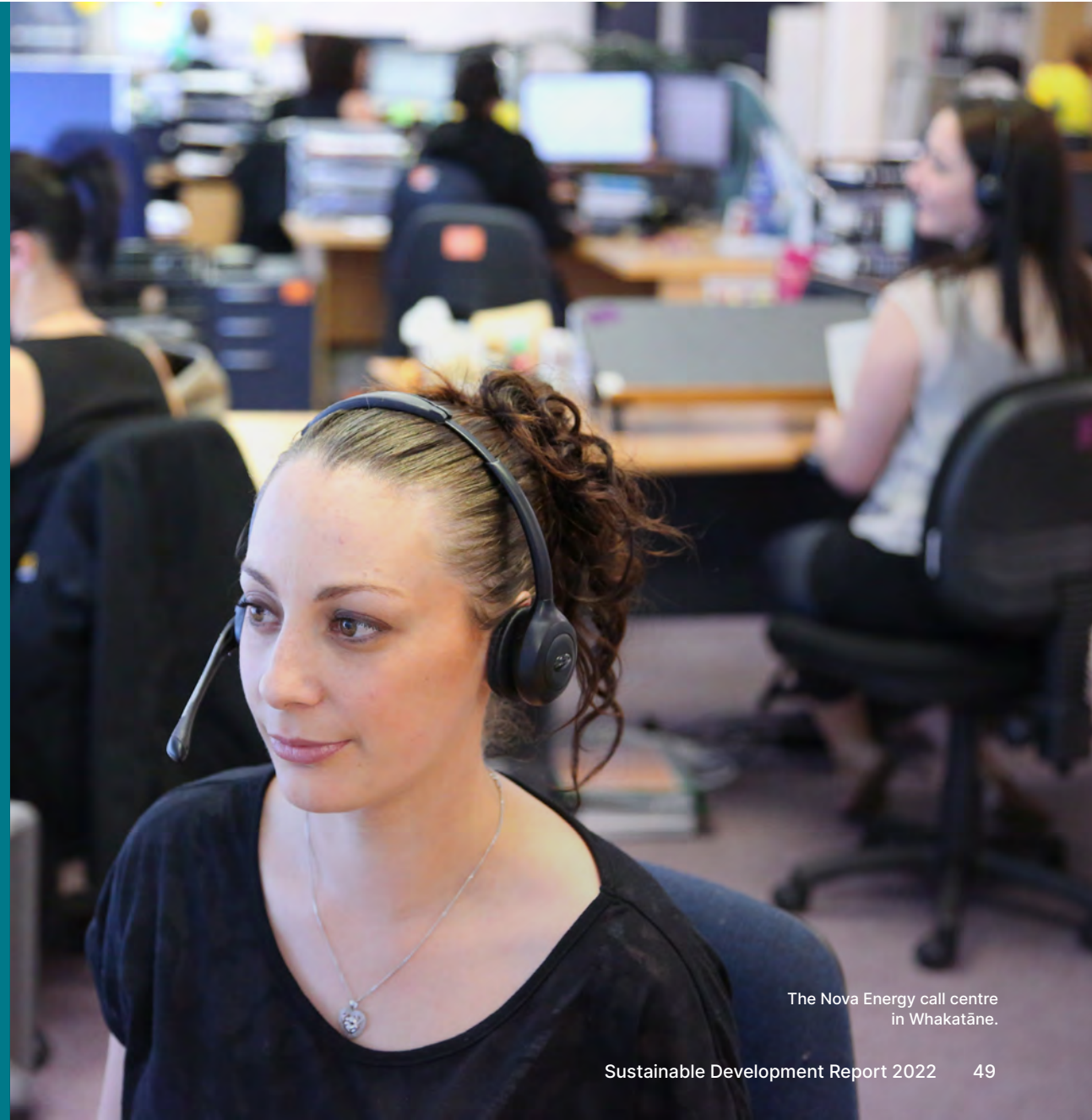
What water is used for and how it is disposed of at Todd

Business	Water sources used in 2022	Uses included	Water discharges in 2022	Sources of discharges
	<ul style="list-style-type: none"> Consented water takes from streams/rivers, dams, and bores Reticulated water supplies 	<ul style="list-style-type: none"> Process cooling water, steam generation, drilling, well simulation, general potable use in offices, production stations and wellsites 	<ul style="list-style-type: none"> Subsurface discharges by Deep Well Injection (DWI) Stormwater discharges to land and water Contaminated water removal by an accredited operator Discharges into septic systems, municipal sewage networks and site-based wastewater treatment plants 	<ul style="list-style-type: none"> Water produced from the subsurface, other contaminated water Site stormwater treated in interceptor and polishing systems on site Miscellaneous contaminated water Site and office sewage
	<ul style="list-style-type: none"> Consented stream water take and reticulated supplies 	<ul style="list-style-type: none"> Gas turbine power generation processes, fire water, washdown water general potable use at sites and offices 	<ul style="list-style-type: none"> Stormwater discharges to land and water Contaminated water removal by an accredited operator Discharges into septic systems, municipal sewage networks and site-based wastewater treatment plants 	<ul style="list-style-type: none"> Site stormwater treated in interceptor and polishing systems on site Miscellaneous contaminated water Sewage generated at sites
	<ul style="list-style-type: none"> Groundwater takes from consented water wells owned by Todd Energy Canada and a Birch Field neighbour Potable and distilled water trucked in from Fort St John Reticulated water supply 	<ul style="list-style-type: none"> Water used on wellsite and production station including cleaning and fire water and other processes. Water is recycled and reused where possible to reduce groundwater take Potable water used at Birch well sites and plant sites Used for amine plant TEC offices 	<ul style="list-style-type: none"> DWI Stormwater discharges to land and water Discharge to septic systems and municipal sewage supply 	<ul style="list-style-type: none"> Contaminated well simulation or stormwater and other water Tested – if contaminated disposed of by Deep Well Injection, if uncontaminated discharged to land Site and office sewage



Material topic 5

Employee health, safety and wellbeing



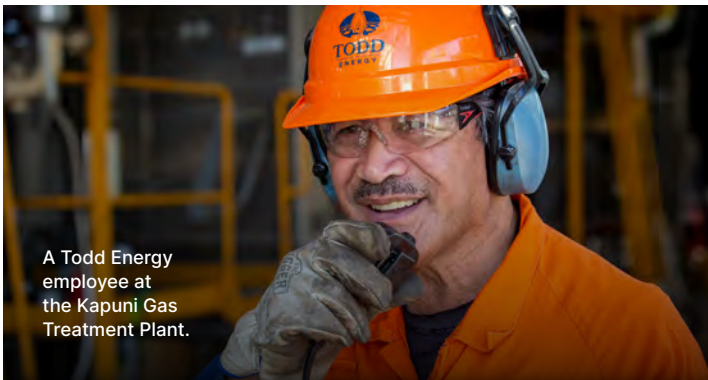
The Nova Energy call centre in Whakatāne.

Physical safety

Todd's Health, Safety and Environment (HSE) principles are based on the belief that all incidents are preventable. Todd strives to ensure that its people, programmes and operational philosophy remain focused on a zero-injury workplace. All our people and contractors working in Company facilities are encouraged to stop any job they do not believe is safe. It is Todd's policy that all potential hazards and incidents are immediately reported so corrective actions can be made as quickly as possible and effective processes are in place to track corrective actions through to closure.

Table 6: Todd's HSE performance

Metric	2022	2021	2020
Total Recordable Injury Frequency Rate (TRIFR)	1.8	0.4	1.4
Total hours worked (million hours)	2.7	2.4	2.2
Tier 1 and Tier 2 Process Safety Incidents (PSI)	1	2	1
Number of Lost Time Injuries (LTI)	3	0	1
Recordable Vehicle Incidents	0	0	0



A Todd Energy employee at the Kapuni Gas Treatment Plant.

2022 highlights

- Todd experienced no fatalities and no high consequence injuries
- There were no reported discrimination incidents or human rights violations across Todd
- Culture was added to Todd's Health, Safety and Environment Board Committee

Todd aims to nurture an attractive and safe work environment that supports the physical and mental wellbeing of staff and employees and provides opportunities for professional and personal growth.

In Todd's 2021 report, an opportunity was identified to take additional steps to eliminate and minimise mental health safety risks in the workplace. In 2022, Culture was added to Todd's Health, Safety and Environment Board Committee. The inclusion of Culture was to ensure a greater focus on employee wellbeing, psychological safety and engagement survey solutions to enhance the employee experience and drive engagement across the organisation.

2022 HSE Incidents

In 2022, there were three Lost Time Injuries (LTIs) at Todd Energy. All were foot related injuries to Todd contractors who all made a full recovery. Given the common occurrence of foot injuries in 2022, follow-up included increased focus on minimising the potential for these types of injuries to occur. Key incident review findings and corrective actions focused on 'line of fire' and 'exclusion zones', which continue to be widely communicated so that learnings can be shared across the organisation.

Todd identifies its Process Safety Incidents (PSI) according to the three categories, Tier 1, Tier 2 and Tier 3 Process Safety Deviation – with Tier 1 being more serious in nature. These categories have thresholds based on the quantity of a loss of primary containment of a flammable or toxic gas or liquid.

In 2022, Todd had one Tier 2 PSI when a drain valve in a production unit was accidentally left open, triggering a safety system alarm. The incident was immediately rectified, and follow-up completed to minimise the potential for this type of event reoccurring.

In December 2022, Todd Energy identified a potential safety issue in its liquid CO₂ plant. Normal operating surveillance detected a risk relating to the release of ammonia from a pressure safety valve. Because of this risk, the plant was temporarily shut down until an assessment of the required remedial work could be completed.

In early 2023, identification of the root cause of the issue allowed engineering solutions to be implemented so that the plant could be safely restarted at reduced rates. Further engineering solutions were implemented in mid-2023, allowing the CO₂ plant to safely resume full rate operations by June 2023.

Todd's Health, Safety, and Environmental Management System (HSEMS)

Todd's HSEMS is based on international standards and established systems from industrial sectors similar to those that Todd's businesses operate in.

The HSEMS provides a framework for:

- Effective management of personal and critical hazard safety
- Setting HSE objectives and priorities
- Establishing clear roles and responsibilities to achieve those objectives
- Providing assurance that Todd complies with its legal obligations
- Continuous reduction of risk and improvement in performance

Continuous HSEMS improvement is achieved through setting of annual HSE objectives, improvement plans, internal and external auditing of HSE systems and risks. Todd's risk management principles are based on ISO 31000 standard and set through company risk management standards and guidelines.

HSEMS improvements during 2022 include:

- Improved emergency response systems and training for Nova generation assets
- Reviewed and rationalised safety critical elements (SCE) risk controls across Nova's generation assets
- Through a series of workshops, a complete review and assessment of critical risks at Kapuni Production Station was undertaken
- Developed pre-incident plans for immediate emergency response scenarios at Kapuni Production Station
- Completed Delta HAZOP for processing plant at the McKee Mangahewa Production Station
- Developed process safety KPI dashboard for Todd Energy Well operations

Todd's risk and risk management practices are subject to a combination of annual independent audits and internal management reviews. Audit findings result in actions which are tracked and monitored by senior management until closed.



A Todd Energy staff member on site at the Kapuni Production Station.

Process safety training at Todd Energy

By year-end 2022 Todd Energy had successfully delivered a two-part process safety training course to 90% of engineering and operations employees. The training was developed in-house and included 14 full-day, in-person sessions which covered process safety incidents from a local, national and global perspective.

Covid-19 pandemic response

Todd's Pandemic Response Plan was in place for part of 2022. Todd supported contracted staff and employees and maintained safe operations as Covid-19 case numbers peaked across New Zealand in March 2022 and remained high throughout the winter months.

Application of the Company's Pandemic Response Plan officially ceased in the third quarter of 2022 after the New Zealand government removed the Covid-19 Protection Framework. For the remainder of 2022, Covid-19 management sat at a divisional level at Todd.

Todd's ongoing use of its Covid-19 Pandemic Response Plan and its various work management processes remain available and can be re-implemented at any time in the future should the need arise.



The Nova Energy Whakatāne office celebrating Diwali, October 2022.

Employee wellbeing

Across Todd's divisions, there are a variety of annual wellness initiatives to foster active lifestyles, nutrition, financial wellbeing, stress management and mental resilience. These initiatives extend to promotional programmes and offsite activities utilising external subject matter experts and providing access to a range of external wellbeing resources.

Example employee programmes offered in 2022 include:

- Employee Assistance Programme (EAP) for employees and their immediate family
- Paid flu vaccines, health checks and discounted premiums on health insurance
- Discounts on Integria healthcare products
- Wellness activities and services
- A cultural calendar of celebratory events and awareness days
- Social events and activities



As part of Nova Energy's Fit for Life employee wellbeing programme, teams took part in wellbeing challenges, such as the one depicted above where employees earned points for achieving hydration, activation, stretching and unwinding goals.



Diversity, equity and inclusion

In 2022 a new flexible working policy was launched at Todd, enabling New Zealand-based teams who are able to have flexible working arrangements to decide what arrangements work best for them. The policy included training for managers about how to implement the process and successfully manage flexible teams.

To further support new parents, Todd provided additional enhancements to its Parental Leave Scheme, which are above and beyond the government entitlement. The changes saw an increase to the Todd top-ups on the government paid parental leave payments. Partner leave enhanced payments were also increased from one week to two weeks, allowing partners of primary carers to take two weeks of leave on full pay.

In 2022 Todd Energy continued with its in-house Cultural Awareness Initiative, which was launched in 2021 and Todd offered online beginner level Te Reo Māori courses to corporate employees. The Company continues to act on requests to help employees improve their Māori cultural competency and provides resources to help facilitate the use of Te Reo in the workplace. The theme for Corporate Wellness Month was Te Whare Tapa Whā – the four cornerstones of Māori health.

In 2022 discussions were initiated regarding the development of a Todd Diversity, Equity and Inclusion Standard. Todd aims to approve this Standard and an implementation plan by Q2 2023.



In August 2022 All Blacks manager Gilbert Enoka visited Todd Energy's McKee Mangahewa and Kapuni sites to share his personal experience and knowledge of building high performance teams and the role everyone has to play in achieving and maintaining a great workplace culture.



A Group Finance and Services team offsite in August 2022 included a collaborative session with author/illustrator Matthew Johnstone (centre) – a passionate mental health and wellbeing advocate.



Reporting frameworks

Appendix 1

Appendix 2

Appendix 3

Glossary



A Todd Energy employee at the Mangahewa D site in Taranaki.

Appendix 1

TCFD Physical Risk Summary

Climate hazard (utilising Trucost Physical Risk Analytics ¹)	
Wildfire	<p>Todd's overall exposure to wildfire is low across all scenarios and time horizons.</p> <p>Todd Energy Canada's Birch production facility has a high exposure to risk from wildfires. This risk exposure currently exists and is not materially exacerbated by climate change.</p> <p>Todd has existing emergency management systems in place for this location.</p>
Cold wave	<p>Todd's overall exposure to cold waves is low across all scenarios and time horizons.</p> <p>Todd Energy Canada personnel are accustomed to operating in severe low temperatures and plant and people are equipped for cold wave events.</p>
Heatwave	<p>All of Todd's operations have a low exposure to heatwave risk across all scenarios and time horizons.</p> <p>No specific mitigation is required at this time.</p>
Water stress	<p>Water stress was identified as a significant physical risk driver for Todd. However, only a small proportion of Todd's sites are located in areas exposed to high water stress and these locations are exclusively office or warehouse sites, most of which are leased and are not considered material to the Group's overall operations.</p> <p>No additional mitigation is required at this time.</p>
Flood	<p>All of Todd's operations have a low exposure to flood risk across all scenarios and time horizons.</p> <p>No additional mitigation is required at this time.</p>
Sea level rise	<p>Todd's overall exposure to sea level rise is low across all scenarios and time horizons.</p> <p>No additional mitigation is required at this time.</p>
Hurricane	<p>All of Todd's operations have a low exposure to hurricane risk across all scenarios and time horizons.</p> <p>No additional mitigation is required at this time.</p>

Note 1:

Trucost Climate Change Physical Risk Analytics provides an asset level assessment of physical risk at the company and portfolio level. The assessment:

- Is based on science-based climate change physical hazard characterisation using public, private and Trucost owned datasets.
- Covers seven key climate change physical hazards: flood, water stress, heatwave, cold wave, hurricanes, sea level rise and wildfire.
- Covers three climate change scenarios and three time periods (short, medium and long term) into the future.

Appendix 2

TCFD Qualitative Transitional Risks Assessment

Risk	1. Natural gas demand destruction	2. Carbon price movements	3. Availability and cost of debt and insurance
Summary	Policy and regulatory changes and/or technological advances may reduce the demand for natural gas.	Further policy and regulatory interventions materially increase or decrease the carbon price applied to natural gas products. Material decreases in the carbon price are considered to carry a similar level of risk to material increases. This is because material decreases may discourage future investment in emissions reduction strategies or render existing investments ineffective.	Reduced availability and/or higher cost of debt and insurance in the future due to potential changes in lender and insurer policies on fossil fuels in response to emissions reduction.
Type	Policy and Legal Market	Policy and Legal	Policy and Legal Reputational
Type and triggers	Demand destruction could be triggered by: Policy and legal changes, such as changes to the price of carbon (refer to risk 2), changes to the rules around how carbon pricing is applied or government incentives for lower emissions energy sources. Technological advancements such as biofuels and battery technology which lead to fuel switching.	Both New Zealand and Canada (the countries where Todd operations have the greatest emissions) have regimes that price carbon emissions. Each government can influence the rules and pricing that applies to emissions to meet policy objectives and international commitments. Uncertain rates of carbon price policy change can possibly decrease confidence in demand predictions.	Lenders and insurers face pressure from shareholders to reduce their debt or underwriting exposure to businesses producing greenhouse gases. Government policy in many countries also requires disclosure of these exposures. Lender, insurer and government policy requirements are influenced by societal views and attitudes towards the fossil fuels sector, including natural gas extraction.

Risk	1. Natural gas demand destruction	2. Carbon price movements	3. Availability and cost of debt and insurance
<p>Market impacts</p>	<p>New or accelerated shutdown of major industrial consumers. Increased demand for electricity and renewable fuels. Reduced supply of natural gas as legacy gas infrastructure is rendered uneconomic and reduced investment in gas field development.</p> <p>A transition of gas demand from lower value baseload fuel to niche higher value industrial use fuel. This could be an opportunity for Todd.</p>	<p>Further demand destruction for natural gas (refer risk 1). Reduced confidence to invest in carbon emissions reduction or mitigation activities.</p>	<p>A reduction in the availability of debt to the gas sector. Impacts in the insurance sector are not yet clear but may include an inability to insure certain assets or higher premiums.</p>
<p>Impacts on Todd</p>	<p>A general reduction in demand for natural gas. Todd's co-generation and gas pipeline assets may become uneconomic to operate and be decommissioned. Increase in demand for peakers (unless peaking requirements are addressed by alternative means, such as pumped storage, batteries, etc).</p> <p>Quantification of impacts will be assessed in 2023 once our specific and sector modelling protocols and inputs are more fully matured.</p>	<p>Todd has a heightened exposure to carbon pricing due to the comparably higher CO₂ content of gas derived from the Kapuni field and an inability to recover this higher carbon liability from customers.</p> <p>Reduced demand for natural gas products with similar impacts to risk 1.</p> <p>Quantification of impacts will be assessed in 2023 once Todd specific and sector modelling protocols and inputs are more fully matured.</p>	<p>Some of Todd's lenders and insurers are seeking to reduce their exposure to fossil fuels. Some have adopted specific targets.</p> <p>Some insurers are seeking to understand Todd's approach to emissions reduction and have indicated an expectation that Todd will commit to reductions.</p> <p>Sustainability-linked loans and renewable energy projects are likely to facilitate wider access to debt based on emissions reduction targets.</p> <p>Potential impact is lower debt availability for the sector over time. This may mean lower debt to equity ratios and lower leverage impacting Todd's ability to execute growth strategies.</p> <p>An inability to obtain the desired level of insurance due to reduced capacity for fossil fuel companies is another potential impact.</p>
<p>Financial impact</p>	<p>Quantification of impacts will be assessed in 2023 once our specific and sector modelling protocols and inputs are more fully matured.</p>	<p>Work will commence in 2023 on quantification of impacts once specific and sector modelling protocols and inputs are more fully matured.</p>	<p>Lower debt availability as debt funding favours sustainable development projects. This may mean lower debt to equity ratios and lower leverage impact Todd's ability to execute field development programmes in NZ and Canada.</p> <p>Higher insurance premiums or an inability to obtain the desired level of insurance coverage for certain assets.</p>

Risk	1. Natural gas demand destruction	2. Carbon price movements	3. Availability and cost of debt and insurance
Mitigations	<p>All three of Todd's top transitional risks are related to the emissions generated by our operations.</p> <p>Various workstreams are underway to:</p> <ul style="list-style-type: none"> investigate renewable fuels to extend the residual life of co-generation and pipeline assets. diversify the Group's revenue sources, including a significant investment in solar energy. assess the feasibility of carbon capture, utilisation, and storage strategies. 	<p>Same as risk 1.</p>	<p>Todd's sustainable development reporting began in 2020 and continues to be broadened to ensure it meets stakeholder expectations.</p> <p>Todd continues to develop its sustainable development programme, as well as pursuing sustainability-linked loans and specific financing of renewable energy projects.</p> <p>Todd has established and communicated its long-term emissions reduction target.</p>
Opportunities	<p>Increased investment in solar energy.</p>	<p>Renewed emphasis on CO₂ sequestration.</p> <p>Increased investment in opportunities that support the transition to a low-emissions economy.</p>	<p>Establish intermediate emissions reduction targets for scope 1, 2 and 3 aligned to science-based approach and pursue alternative financing structures, such as green loans and sustainable linked loans.</p>

Appendix 3

Global Reporting Initiative Index

This report refers to the GRI 2021. Disclosures and numbering may differ slightly from Todd's 2021 report which referred to the GRI 2016.

The content index can be used to find specific GRI disclosures that together build an understanding of Todd's environmental and social impacts and contributions, and related governance.

GRI #	Disclosure title	Reference
-	Foundation	About this report ; Scope ; Reporting frameworks
GRI 2: General Disclosures 2022		
Disclosure 2-1	Organisational details	The Todd Corporation Limited NZ Limited Company (unlisted) The Todd Building, Level 15, 95 Customhouse Quay, Wellington, 6011 New Zealand, Australia, Canada, Pacific Islands, USA
Disclosure 2-2	Entities included in the organisation's sustainability reporting	Scope

GRI #	Disclosure title	Reference
Disclosure 2-3	Reporting period, frequency and contact point	2022 calendar year Annually Data is as at 31 December 2022 with publication in Q3 of the subsequent year E-mail: sustainability@toddcorporation.com
Disclosure 2-4	Restatements of information	Water, effluent and waste
Disclosure 2-5	External assurance	Other important information

GRI #	Disclosure title	Reference
Disclosure 2-6	Activities, value chain and other business relationships	<p>Todd operates under three main business units – Todd Energy (including TEC), Nova Energy and Todd Capital.</p> <ul style="list-style-type: none"> Todd Energy produces natural gas from its onshore natural gas fields at Kapuni, McKee and Mangahewa, and through its 26% interest in the offshore Pohokura natural gas field. Natural gas is sold into the New Zealand market (electricity generation, petrochemicals, industry, commercial and residential markets) via Nova Energy. It also produces condensate which is exported to refineries in the Asia Pacific region. TEC produces natural gas through its 50% interest in the Birch development and serves the Canadian natural gas market. Nova Energy is a generator-retailer that generates electricity and supplies natural gas, electricity, broadband and mobile to New Zealanders. Nova Energy, through its subsidiary Sunergise International, is one of the leading solar developers in the Pacific Islands. Todd Capital invests across a range of sectors, which include healthcare, property, technology and minerals. Todd Capital is out of scope of this report.
Disclosure 2-7 & 2-8	Information on employees and other workers	Employee data tables
Disclosure 2-9	Governance structure and composition	About us , Our people , Governance
Disclosure 2-10	Nomination and selection of the highest governance body	Board Constitution and charters outline the nomination and selection process for the Board and each of its committees. One person from each of the four Todd Family branches is a Director on the Board. The remaining three Directors are independent.

GRI #	Disclosure title	Reference
Disclosure 2-11	Chair of the highest governance body	The Chair of Todd Corporation's Board of Directors is non-executive.
Disclosure 2-12 to 2-14	Role of the highest governance body in sustainable development and delegation of responsibility	Governance , Materiality assessment
Disclosure 2-15	Conflicts of interest	The Board interest register for Directors is managed by the Group Company Secretary, as required by the New Zealand Companies Act.
Disclosure 2-16	Communication of critical concerns	Critical concerns are communicated to the Board via monthly HSE reporting and via the bi-annual group regulatory compliance process. In 2022, Todd was not subject to any legal actions related to corrupt or undesirable business practices.
Disclosure 2-17	Collective knowledge of the highest governance body	Across the Board, competencies exist that are relevant to organisational impacts including governance, finance/ accounting, risk management, health and safety, regulatory, operations, sustainable development, growth, strategy, capital markets, the energy sector, customers, government relations, investors and philanthropy. The Board regularly conducts meetings, reviews the ongoing strategy, meetings, and undertakes training sessions that advance the Board's collective knowledge.
Disclosure 2-22	Statement on sustainable development strategy	Letters from the Group CEO and Chair

GRI #	Disclosure title	Reference
Disclosure 2-23 & 2-24	Policy commitments	Todd's Business Conduct Policy is aligned with Todd's Operating Principles to ensure the Company acts with integrity and respect and makes a positive contribution to the communities in which it operates. The Business Conduct Policy is supported by a Policy Management Standard including an Anti-bribery and Corruption Standard and Code of Conduct Standard. Todd's Operating Principles are aligned with a number of the United Nations Sustainable Development Goals. Todd does not apply the United Nations' Global Compact and, instead, applies its Operating Principles and Policy Management Standard. Todd does not currently have a bespoke Human Rights Standard.
Disclosure 2-25	Processes to remediate negative impacts	<p>Todd is aware that operational activities can cause a range of impacts for stakeholders and aims to respond and rectify complaints promptly.</p> <p>Todd outlined its Complaints and Disputes approach in its 2021 SD report. In 2022, there were no significant complaints and disputes. The following grievances were addressed:</p> <ul style="list-style-type: none"> • Todd Energy received 16 complaints from members of the community, 94% have been addressed and resolved and 6% are ongoing. None required mediation. Complaint themes included vehicles (50%), noise (44%), and other (6%). • Nova Energy received 11 complaints from members of the public, which are ongoing with remediation actions undertaken in 2022 and continuing in 2023. 100% of complaints were noise concerns at Junction Road and McKee Power Plants. <p>Todd Energy also started recording positive feedback and recorded 44 individual accounts of positive feedback from partners and members of the community.</p>

GRI #	Disclosure title	Reference
Disclosure 2-26	Mechanisms for seeking advice and raising concerns	Todd has a whistle blower standard and procedure for raising concerns about serious wrongdoing regarding Todd, its subsidiaries, directors, executives and employees.
Disclosure 2-27	Compliance with laws and regulations	Todd has not identified any significant non-compliance with laws and/or regulations in 2022.
Disclosure 2-28	Membership associations	<p>Todd considers itself to be a significant member of Energy Resources Aotearoa (ERA) and the Electricity Retailers' Association of New Zealand (ERANZ), both voluntary New Zealand based industry advocacy groups.</p> <ul style="list-style-type: none"> • ERA's mission is to create a successful and sustainable energy resources sector that makes New Zealand a better place, through and beyond the transition to lower emissions. • ERANZ's primary objective is to promote and enhance a competitive and sustainable electricity market for the benefit of customers. <p>In addition, Todd is a member of other associations such as the Explorers and Producers Association of Canada, Gas New Zealand, BusinessNZ (including BusinessNZ Energy Council) and the New Zealand Hydrogen Council.</p>

GRI #	Disclosure title	Reference
GRI 3: Material Topics 2022		
Disclosure 3-1 & 3-2	Material topics identification	Materiality assessment
Disclosure 3-3	Material topics management	Todd's approach was described in the 2021 Sustainable Development Report. Material topics will be revised prior to Todd's 2023 Sustainable Development Report, see Sustainable development at Todd ; Energy, Emissions and climate change ; Community contribution ; Biodiversity and environmental management ; Water, effluent and waste ; Employee health, safety and wellbeing
GRI 11: Oil and Gas Sector 2022: Additional sector recommendations		
Disclosure 11-1-1	GHG emissions material topics management	Actions on managing flaring and venting outlined in Energy, emissions and climate change ; Five-year targets ; Appendix
Disclosure 11-1-5	GHG Scope 1 emissions	Scope 1 emissions from CH ₄ minimal (~1%) Breakdown of Scope 1: Generation 54%, Process 38%, Fuel gas 6%, Other 2%
Disclosure 11-2-1 to 11-2-4	Climate change material topics management	Letter from the Group CEO ; Sustainable development at Todd ; TCFD ; Energy, emissions and climate change In addition to Disclosure 2-28, Todd is engaging constructively with government agencies and Ministers to share sector knowledge and input into complementary workstreams and strategies to support the transition to net zero (e.g., the Gas Transition Plan).
Disclosure 11.4.1	Biodiversity	Biodiversity and environmental management . No projects to date have required the application of mitigation hierarchy.

GRI #	Disclosure title	Reference
Disclosure 11.5.4 to 11.5.6	Waste	Water, effluent and waste ; Appendix
Disclosure 11.7.4	Closure and rehabilitation	None of Todd's sites have closure or rehabilitation plans in place or were closed or are in the process of being closed. Todd Energy is undertaking a McKee well abandonment programme with three abandoned in 2022. Wellsites will remain intact for possible future use. TEC recently abandoned a well that was not completed (drilled in 2012 by the previous operator) and reclamation of this site is underway.
Disclosure 11.14.1	Economic impacts	Community contribution
Disclosure 11.15.1, 11.15.4, 11.16.1, 11.16.2, 11.17.1, 11.17.3	Local communities and Rights of Indigenous Peoples	Community contribution No formal identification of vulnerable groups has taken place.

GRI #	Disclosure title	Reference
GRI 302: Energy 2016		
Disclosure 302-1 & 302-2	Energy consumption associated with the organisation	Energy, emissions and climate change Note, for Table 9 a proportion of the natural gas produced is used by Nova Energy for the purposes of generation.
Disclosure 302-4 & 302-5	Reduction of energy requirements	Improvements at the Kapuni site reduced fuel gas use by 23 TJ/year. Ride sharing at Todd Energy was estimated to reduce fuel consumption by 97 GJ (based on fuel consumption).
GRI 303: Water and effluents 2018		
Disclosure 303-1 to 303-5	Interactions with water as a shared resource including withdrawals and discharges	Water, waste and effluent ; Appendix Possible water related risks and impacts are addressed through consent/permit conditions developed by regulators. A variety of procedures, rules, guidelines and tools are also used by Todd. Rates and water quality standards are metered and measured, and samples are regularly analysed by Todd or the regulators. Where applicable, possible effluent impacts of activities are managed through consent/permit conditions, which are set by regulators.
GRI 304: Biodiversity 2016		
GRI 304-1 to 304-4	Biodiversity activities, methods, impacts and partnerships	Biodiversity and environmental management Possible biodiversity and environmental impacts of activities are managed through consent/permit conditions, which are set by regulators.

GRI #	Disclosure title	Reference
GRI 305: Emissions 2016		
Disclosure 305-1 to 305-3 and 305-5	GHG emissions and reductions	Energy, emissions and climate change Todd reduced the amount of vented and fuel gas emissions at Kapuni by increasing the processing efficiency of the natural gas through control system changes. This change resulted in reduced vented emissions by 10 kT CO ₂ e/year (7 kT CO ₂ e reduced since the project was completed in April), and fuel gas emissions by 1 kT CO ₂ e/year (0.9 kT CO ₂ e since April).
GRI 306 Waste 2020		
GRI 306-1 to 306-5	Waste and effluent generated, and disposal/reuse/recycle mechanism	Water, waste and effluent ; Appendix Where applicable, possible waste impacts of activities are managed through consent/permit conditions, which are set by regulators.
GRI 307 Environmental compliance		
GRI 307-1	Non-compliance with environmental laws and regulations	Todd has not identified any significant environmental non-compliance events in 2022.

GRI #	Disclosure title	Reference
GRI 401 Employment 2016		
GRI 401-1 & 401-3	Employment and employees statistic	Table 7 – Employee Data Table
GRI 403 Occupational Health and Safety 2018		
GRI 403-1 to 403-10	Occupational Health and Safety	<p>Employee health, safety and wellbeing</p> <p>HSE is a core value which the company commits to through its Health, Safety and Environmental Management System (HSEMS), which include occupational health and safety and cover all workers on Todd sites.</p> <p>Todd utilises a comprehensive suite of processes to identify hazards through the lifecycle of a plant, project, operation or process. Hazard identification processes reflect the type of operation and risk profile. Operations apply good business practices which include contemporary risk management methods.</p>
GRI 406: Non-discrimination		
GRI 406-1	Incidents of discrimination and corrective actions taken	<p>Employee health, safety and wellbeing</p> <p>Todd's safety culture encourages all personnel to engage in frequent safety education and awareness training and participation in safety is encouraged through positive reinforcement by supervisors and managers.</p> <p>Todd provides annual health checks, flu vaccinations, and an employee assistance programme is open to all employees and as required for contractors.</p>

GRI #	Disclosure title	Reference
GRI 411: Rights of indigenous peoples		
GRI 411-1	Incidents of violations involving rights of indigenous peoples	No identified incidents of violations involving the rights of indigenous peoples.
GRI 413: Local Communities		
GRI 413.1, 413.2	Local Community interaction and contribution	<p>Community contribution</p> <p>No involuntary resettlement was contributed to. No sites were decommissioned in 2022 but four wells were abandoned or had an ongoing abandonment campaign.</p> <p>Local spend:</p> <ul style="list-style-type: none"> • 82% of Todd Energy's total spend was with contractors with permanent local operational bases in Taranaki. • 37% of TEC's was local (Fort St John, British Columbia) and 61% in neighbouring Alberta where TEC is headquartered.

Table 7: Employee Data Tables

Employee data relates to the 801 direct employees of Todd Energy New Zealand, Todd Energy Canada, Nova Energy, Todd's corporate office in Wellington, and Todd Capital's New Zealand employees.

Todd employs a number of contractors with the majority being skilled contractors with industry qualifications and competencies. Todd Energy is responsible for the vast majority of contractors with 120 contractors employed in an office-based capacity (and recorded as FTE) with a further 900 individual contractors who work on Todd Energy sites in some capacity. Site contractors are not recorded as FTE as work is typically of a short-term nature with numbers confirmed via electronic time sheeting. Todd would typically have no more than 200 contractors onsite at any one time, but the figure of 900 relates primarily to the variety of specialist contractors required in some capacity at different times during the year.

Employees by employment contract		
Permanent	Male	518
	Female	248
Other	Male	22
	Female	13
Total		801

Employees by employment contract		
Full-time	Male	524
	Female	204
Part-time	Male	17
	Female	56
Total		801

New Employee hires by age group		
Under 30	Male	43
	Female	14
30-50	Male	59
	Female	39
Over 50	Male	9
	Female	9
Total		173

Turnover by age group		
Under 30	Male	20
	Female	21
30-50	Male	41
	Female	31
Over 50	Male	16
	Female	15
Total		144

Material topic 1 - Energy, emissions and climate change

Table 8: Key Production/Generation Metrics

Key production/generation metrics	2022
Natural gas (PJ)	55
Condensate (Kbbl)	1,523
LPG (Kt)	51
Electricity sold (GWh)	821

Table 9: Flared Gas Volumes at Todd Energy

Field	Flared Gas (TJ)		
	2022	2021	2020
Kapuni	82**	6	2
Mangahewa & McKee	108	157	107
Pohokura*	4	5	0
Birch Development*	25	10	n/a
Other	0	1	0
Total	219	179	109

* This number reflects Todd's share

** Kapuni's 2022 data includes flaring at KGTP. This data was not included in previous years

Material topic 4 – Water, effluent and waste

Table 10: Todd 2022 non-hazardous and hazardous waste

Waste disposed at accredited facilities	Todd Energy (MT)		Nova Energy (MT)	TEC (MT)
	2022	2021	2022	2022
Non-hazardous material to landfill	347	309	Data not complete	0
Non-hazardous used proppant to landfill	62	n/a	0	n/a
Hazardous material to accredited disposal	155	177	0	0
Drilling mud and cuttings to industrial landfill	n/a	n/a	0	2,919
Total	564	486	Data not complete	2,919

Table 11: Waste diverted from landfill

Waste diverted from landfill	Todd Energy (MT)		Nova Energy (MT)	TEC (MT)
	2022	2021	2022	2022
Paper, cardboard, glass, cans and plastics	35	46	Not tracked	Not tracked
Misc. recycling/reuse (hard hats, fire extinguishers, batteries)	1	Not tracked	Not tracked	Not tracked
Composted material	4	2	0	0
E-Waste	1	1	0	0
Scrap metal	70	112	0	0
Unused well stimulation sand reused as clean fill	100	0	0	0
Drilling waste (cuttings, drilling mud, cement returns)	7,758	11,970	0	0
Recycled waste oil	13	4	6	2
Total	7,982	12,135	6	2

* Not tracked indicates that the waste stream was expected to be generated in a given year, but it was not tracked by waste service providers, or the data is not available. Not tracked waste streams are a focus area for improvement in Todd's waste baselines.

Table 12: Consented and permitted subsurface and surface water takes in 2022

Site	Source	2022 (ML)	2021 (ML)	2020 (ML)
Nova Energy – McKee Power Plant	Mangaone Stream	119	73	198
TEC – Birch Field	Groundwater wells- subsurface aquifers	12	6	7
Todd Energy – McKee-Mangahewa Production Station	Mangahewa Stream	20	21	22
Todd Energy – Mangahewa C Wellsite	Ground water bore- subsurface aquifer	2	2	<1
Todd Energy – Mangahewa D Wellsite	Ground water bore- subsurface aquifer	3	<1	<2
Todd Energy – Mangahewa G Wellsite	Wyatt Dam from an unnamed tributary of the Mangahewa Stream	5	7	4
Todd Energy – Kapuni Gas Treatment Plant	Kapuni Stream	731	614	537
Total		892	724	771

Table 13: Reticulated and potable water takes in 2022

Company and site	Volume withdrawn (ML)	Source
Nova Energy – Junction Road Power Plant	6	New Plymouth reticulated supply
Nova Energy – Fonterra Cogeneration Unit	256	Otumahi reticulated supply
TEC – Birch Field	<1	Fort St John reticulated supply
Todd Energy – Kapuni J Wellsite	17	Waimate West reticulated supply
Todd Energy – Kapuni Production Station	7	Waimate West reticulated supply
Todd Energy – Kapuni- 06/11/17 Wellsite	4	Waimate West reticulated supply
Todd Energy – Kapuni Gas Treatment Plant	3	Waimate West reticulated supply
Todd Energy – New Plymouth Office	3	New Plymouth reticulated supply
Todd Energy combined low reticulated water use sites (<0.5MI each in 2022)	1	Mixed- New Plymouth and Waimate West reticulated supplies

Table 14: Water discharged in 2022

Company and site	Volume discharged (ML)	Receiving water body/catchment/system
Nova Energy – McKee Power Plant	32	Mangaone Stream
Nova Energy – Junction Road Power Plant	2	Mangorei Stream
TEC – Birch Field	10	Subsurface aquifers
TEC – Birch Field stormwater	2	Discharged to land near compressor station
Todd Energy – McKee Mangahewa Fields combined DWI	180	High salinity aquifers
Todd Energy – Kapuni Field combined DWI	122	High salinity aquifers
Todd Energy – All McKee-Mangahewa sites estimated stormwater runoff	329	Various catchments
Todd Energy – All Kapuni sites estimated stormwater runoff	174	Various catchments

NB: Stormwater runoff estimations not conducted for Nova Energy operations. Minor reticulated water use at Todd Energy Canada and Nova Energy offices (which are shared with other entities) were not collated.

Glossary

ARC	Audit and Risk Committee
BRFN	Blueberry River First Nation
CCUS	Carbon Capture, Utilisation and Storage
DWI	Deep Well Injection
EAP	Employee Assistance Programme
ERA	Energy Resources Aotearoa
GRI	Global Reporting Index
GHG	Greenhouse Gas
HSE	Health, Safety and Environment
KGTP	Kapuni Gas Treatment Plant
KNE	Key Native Ecosystem
LPG	Liquefied Petroleum Gas
MHW	Mangahewa
MMPS	McKee Mangahewa Production Station
PSI	Process Safety Incident
SLL	Sustainability Linked Loan
TCFD	Task Force on Climate-related Financial Disclosures
TCL	Todd Corporation Limited
TEC	Todd Energy Canada
TRC	Taranaki Regional Council
TRIFR	The Total Recordable Injury Frequency Rate

UNSDG	United Nations Sustainable Development Goals
WMFN	West Moberly First Nation

Units

CH₄	Methane
CO₂	Carbon Dioxide
CO₂e	Carbon Dioxide Equivalent
GJ	Gigajoule
GWh	Gigawatt hours
ha	Hectares
Kbbl	Thousand barrels
KT	Kilotonne
KT CO₂e	Kilotonne of CO ₂ e
ML	Megalitre
MT	Metric tonne
MW	Megawatt
MWh	Megawatt Hour
PJ	Petajoule
TJ	Terajoule

Biodiversity	Biodiversity is the variability among living organisms, and the ecological complexes of which they are a part, including diversity within species, between species, and of ecosystems (Section 2 of the Resource Management Act 1991).
---------------------	--

Carbon Capture, Utilisation and Storage	Or CCUS refers to the capture of CO ₂ which is either then reused or stored indefinitely underground. The technology includes both capturing CO ₂ from large emission sources (e.g., industrial processes) and also directly from the atmosphere.
--	---

Scope 1	Emissions from sources that a company owns or controls directly.
----------------	--

Scope 2	Emissions that a company causes indirectly which are associated with the generation of energy it purchases or acquires.
----------------	---

Scope 3	Emissions that are not produced by a company itself, but by those that it is indirectly responsible for, up and down its value chain.
----------------	---

Te Reo Māori – Māori language
Please note, the Te Reo phrases provided are often not literal translations of the English terms given alongside them. Rather, they are equivalent ways of expressing the same ideas.

Awa	River, stream, creek
Hapū	Sub-tribe
Iwi	Tribes, people, nation, society
Kaitiaki	Guardian, steward
Mahi	Work, activity
Māori	Indigenous person of Aotearoa New Zealand
Mātauranga Māori	Māori knowledge
Pou	Post, pillar
Rangatahi	Young people, the younger generation
Tangata whenua	People of the land in Aotearoa New Zealand, people born of the whenua. Māori are tangata whenua
Tāonga	Treasure, anything highly prized
Te Aō Māori	The Māori world
Tikanga	Custom, protocol
Wai	Water
Wānanga	Knowledge
Whenua	Land, ground, earth, placenta, afterbirth
Wharekai	Kitchen



95 Customhouse Quay
PO Box 3141
Wellington 6140
New Zealand
Phone:+64 4 472 2970

toddcorporation.com

