



# GREEN BOND ANNUAL REPORT

# 2020



**SUPPORTING QUEENSLAND'S TRANSITION  
TO A LOW-CARBON, CLIMATE RESILIENT AND  
ENVIRONMENTALLY SUSTAINABLE ECONOMY**

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## About this report

This report provides information about the allocation of proceeds from Queensland Treasury Corporation's (QTC's) green bond issuances as at April 2020.

All proceeds have been allocated against eligible projects and assets focused on low carbon, climate resilient and environmentally sustainable outcomes in Queensland.

QTC's Green Bond Framework enables:

- programmatic issuance of Climate Bond Initiative (CBI) certified green bonds, and
- issuance of green bonds in accordance with the International Capital Market Association (ICMA) Green Bond Principles.

Our framework and reporting are aligned with the internationally recognised ICMA Green Bond Principles (2018) and the Climate Bonds Standard v2.1 and v3.0 for certification and reporting (2019).

At the time of this report QTC has only CBI certified green bonds on issue.

## Share your feedback

As the green, social and sustainable investment markets continue to evolve, so too will our approach as we respond to changing investor and market expectations. We strive for continuous improvement and welcome your feedback on our approach at any time. Please email [investorrelations@qtc.com.au](mailto:investorrelations@qtc.com.au)

# Contents

Message from the Chief Executive	2
Message from the Head of Funding and Liquidity	3
QTC's Green Bond Program	4
Allocation of proceeds	7
Independent third-party assurance	15
About QTC	15
Important notice	16

# Message from the Chief Executive



Throughout the year, we have continued to see growth in the green bond market, and the sustainable finance market more broadly. Investors are increasingly integrating environmental, social and governance factors (ESG) into their investment approach and issuers are looking to finance the transition to a sustainable economy.

QTC is committed to its green bond program and its continued support of the development of the green bond market in Australia, particularly as we support the Queensland Government in rebuilding the economy following the COVID-19 pandemic.

## The evolving ESG market

While governments are widely regarded for their social outcomes and governance, the environment is becoming a key area of focus for investors.

We believe this is a good opportunity for QTC to share how the Queensland Government is addressing climate change through a number of commitments and actions, including targeting 50 per cent renewable energy by 2030 and zero net emissions by 2050, as outlined in the Queensland Climate Transition Strategy.

We are seeing a rapidly evolving landscape in the types of issuance of green, social and sustainable debt and continue to monitor developments in this space.

## The importance of green bonds

QTC's Green Bonds allow both domestic and offshore investors to combine their financial interests with exposure to projects and assets with an environmental benefit to Queensland.

We look forward to continuing to collaborate with investors to help support a global transition towards sustainable finance.

**Philip Noble**

CHIEF EXECUTIVE

# Message from the Head of Funding and Liquidity



QTC's Green Bond program enables investors to support Queensland's transition to a low carbon, climate resilient and environmentally sustainable economy.

Following our green bond debut in 2017, we increased our green bonds on issue in February 2019 with a AUD1.25 billion 10 year green bond deal. This green bond line has since grown to AUD1.73 billion, taking our green bonds on issue to AUD2.48 billion as at 17 April 2020 and making QTC a large, active issuer in Australian dollar green bonds.

## Enhanced liquidity

QTC has achieved programmatic certification from the Climate Bonds Initiative (CBI). This supports scaling up its program and enhances liquidity for investors, as we can now tap our existing lines and be more flexible in meeting investor demand.

## Future issuance plans

QTC is a large bond issuer and while green bonds are a relatively small part of our total outstandings, they are an important part of our diversified funding strategy and continue to complement our benchmark bond program.

As global markets look at ways to transition to sustainable finance, we believe it's important to support projects and assets that deliver an environmental benefit to Queensland—through the development of the green bond market.

We expect to remain a regular issuer—subject to market conditions—and are actively looking to grow and diversify our pool of eligible projects and assets.

## Jose Fajardo

HEAD OF FUNDING AND LIQUIDITY

# QTC's Green Bond Program

## QTC Green Bonds

QTC's Green Bond program enables investors to support Queensland's transition to a low carbon, climate resilient and environmentally sustainable economy.

QTC has achieved programmatic certification from CBI, meaning that for CBI certified green bonds QTC needs just one annual verification to maintain certification. This process eliminates pre-issuance verification for each individual transaction. It also allows QTC to easily tap its existing lines—providing greater flexibility to meet investor demand.

QTC Green Bonds:

- are guaranteed by the Queensland Government
- carry the same credit rating as QTC and the Queensland Government of AA+/stable/A-1+ by S&P Global; Aa1/stable/P-1 by Moody's and AA/stable/F1+ by Fitch, and
- are exempt from Australian interest withholding tax.

QTC Green Bonds on issue as at April 2020:

- 22 March 2024\*, 3.00%-AUD750 million
- 6 March 2029\*, 2.50%-AUD1,730 million

Both bond lines on issue have CBI certification.

QTC's eligible project and asset pool, as verified by DNV GL, totals approximately AUD6.3 billion as at 31 December 2019.

## How the proceeds can be used

QTC's Green Bond Framework enables:

- issuance of CBI certified green bonds, and
- Issuance of green bonds in accordance with the ICMA Green Bond Principles.

This flexible approach enables QTC to fund a broad range of projects and assets that contribute to mitigation of, and adaptation to, climate change.

The net proceeds of both categories of green bonds may be allocated (directly or notionally) to existing, new and ongoing eligible projects and assets that have an environmental benefit associated with the State of Queensland. Eligible project guidelines are set out in the QTC Green Bond Framework, which is available to qualified investors on the institutional investors section of QTC's website.

An amount equal to the net proceeds of each green bond issue is recorded and tracked through an earmarking process that accounts for the funding allocated.

\*144A eligibility



QTC Green Bonds fund qualifying green projects and assets that support Queensland's transition to a low carbon, climate resilient and environmentally sustainable economy.

## Governance

QTC's Green Bond Committee is accountable for evaluating projects and assets, maintaining a register of eligible projects and assets and the allocation of green bond proceeds, and for ensuring ongoing compliance with all aspects of the QTC Green Bond Framework. The committee meets regularly and is comprised of members from different divisions across QTC.

## Independent assurance and reporting

QTC is committed to a high standard of transparency.

Our framework and reporting are aligned with the internationally recognised ICMA Green Bond Principles (2018) and the Climate Bonds Standard v2.1 and v3.0 for certification and reporting (2019).

Our well-established processes and reporting guidelines include independent third-party assurance of our framework, project pool and bonds on issue by DNV GL.

In addition to the Green Bond Annual Report, QTC discloses the following:

- annual verification statement from DNV GL
- Green Bond Framework review statement from DNV GL, and
- confirmation of certification from CBI for CBI-certified green bonds.

Copies of these documents are available on the institutional investors section of QTC's website.

We have maintained a consistent reporting framework since our first green bond issuance and remain adaptive to investor feedback as we continue to monitor market developments in the reporting space.

You can find out more about Queensland Government initiatives and actions to support the state's Climate Change Response including key targets, programs and sustainability measures for government operations at [www.qld.gov.au/environment/climate/climate-change/response](http://www.qld.gov.au/environment/climate/climate-change/response)

QTC Green Bonds are included in a number of globally recognised benchmarks including Bloomberg Barclays MSCI Green Bond Index (GBGL), the ICE Bank of America Green Bond Index (GREN), the Solactive Green Bond Index (SOLGREEN) and the S&P Green Bond Index.



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Green bonds are of strategic importance  
in QTC's diversified funding mix.  
They highlight and support projects  
and assets with an environmental  
benefit to the State and complement  
QTC's core benchmark bond lines.

# Allocation of proceeds

All proceeds from QTC's Green Bonds issued as at April 2020 have been fully allocated against a selection of eligible projects and assets as detailed below.

Categories of eligible projects/assets	Sub category	Project/asset name	Allocation of green bond proceeds (AUD M)	Recorded usage/generation 1 Jan—31 Dec 2019
Low carbon transport	Light rail – electrified trams and supporting infrastructure	Gold Coast Light Rail Stage 1	283.7	Passenger trips: 10,766,110 Passenger kms: 58,000,000
		Gold Coast Light Rail Stage 2	104.8	
	Electrified rail, supporting infrastructure and rolling stock	Citytrain network	987.0	Passenger trips: 55,206,617
		■ Redcliffe Peninsula Line	207.3	
		■ Citytrain rolling stock	225.0	Passenger kms: 1,182,000,000
		■ New generation rolling stock (electric)	262.9	
Tilt Trains rolling stock	19.0	Passenger trips: 215,879 Passenger kms: 79,268,242		
	Cycleways – multiple	Cycleways	81.6	N/A <sup>1</sup>
Renewable energy	Solar	Sunshine Coast Solar Farm	30.0	Energy generated: 28,784 MWhs
Water infrastructure	Desalination plant	Gold Coast Desalination Plant	304.3	Installed capacity of 133 million litres per day
<b>Total</b>			<b>AUD2,505.6</b>	

## Notes:

- Net proceeds from the QTC 22 March 2024 Green Bond were AUD748,710,000 from AUD750,000,000 Face Value of bonds issued.
  - Net proceeds from QTC March 2029 Green Bond were AUD1,756,982,800 from AUD1,730,000,000 Face Value of bonds issued.
1. Additional information can be found in the Queensland Government "Queensland State of Cycling Report 2017".



# Benefits



## Low carbon transport

- The transport sector can play a vital role in mitigating some of the effects of climate change.
- The Queensland Government's Transport and Main Roads Department is developing a Transport Net Zero Emissions Roadmap, in alignment with the Queensland Climate Transition Strategy.
- Investing in public transport projects and assets, such as light rail, electrified rail and cycleways, plays an important role in developing a more sustainable transport system by providing alternatives to private car use and reducing vehicle emissions.



## Solar energy

- Solar energy generated by utility scale solar farms and rooftop installations reduces the amount of energy supplied by coal-fired and gas-fired power stations, which reduces carbon dioxide emissions as well as reducing local air pollutants.
- Queensland has more than 4,000 megawatts of small and large-scale solar power and in 2018 reached 1 million rooftops with solar photovoltaics (PV).



## Water infrastructure and desalination

- Queensland experiences extreme weather events, and with a growing population, desalination offers an alternative source of drinking water in times of flood and drought, or if conventional treatment plants need to be offline.
- Investment in the Gold Coast Desalination Plant was fast-tracked in response to the 'Millennium Drought' and it has since demonstrated its benefit in times of flood also.
- Climate resilient water assets are important, as the majority of water provided to more than three million South East Queenslanders is currently dependent on rain.

An aerial photograph of the Gold Coast Desalination Plant. The plant consists of several large, modern industrial buildings with grey and yellow-green facades. In the foreground, there are several large, circular, dark-colored water storage tanks. The plant is situated on a green field, with a road and parking lot nearby. In the background, a sandy beach and the ocean are visible, with a city skyline in the distance under a clear blue sky.

## The Gold Coast Desalination Plant

The Gold Coast Desalination Plant turns sea water into drinking water. As a climate-resilient source of water, the Desalination Plant regularly supplies drinking water to the SEQ Water Grid, and ramps up in times of flood or drought, or when conventional water treatment plants are offline.

Located at Tugun on the southern part of the Gold Coast, the plant uses an advanced technology called reverse osmosis to remove the salt and produce drinking water for the Gold Coast, Logan and Brisbane.

The plant produces up to 133 million litres of pure drinking water a day – equivalent to 50 Olympic-sized swimming pools. It generally operates in standby mode (33 per cent) and, if required, can reach 100 per cent capacity in 72 hours to supply up to 600,000 people with drinking water.

The plant uses energy recovery devices to improve the energy efficiency of producing drinking water. Energy recovery is achieved by reusing the high-pressured salty water, or brine, produced in the first pass of the reverse osmosis process, to continue to force water through the reverse osmosis membranes. This process recovers about 97 per cent of energy that would otherwise be lost.

Unlike the majority of drinking water produced in South East Queensland, desalination does not rely on rainfall and is a critical, climate-resilient water source during drought and flood.

The plant's intake and outlet structures are located out to sea and have become artificial reefs, which are home to a variety of small plants and sea animals.

Further information can be found on the Seqwater website.

# Sunshine Coast Solar Farm

The Sunshine Coast Regional Council is Australia's first local government to offset its entire electricity consumption across all its facilities and operations from renewable energy generated at the 15 megawatt Sunshine Coast Solar Farm.

Since the Sunshine Coast Solar Farm began generating power in July 2017, it offset more than 107 per cent of the Council's electricity use. From July 2017 to 31 December 2019, the Sunshine Coast Solar Farm has generated 69,760 megawatt hours of electricity, more than offsetting the 65,395 megawatt hours of energy used by Council. By taking a proactive approach, Council is successfully combating the impacts of the cost of its operations from rising electricity costs. The solar farm has also packed a powerful environmental punch with a massive 55,800 tonnes of CO<sub>2</sub> emissions avoided since operating.

Council is aiming to be Australia's most sustainable region and in doing so creating awareness around renewable energy. It has moved into the detailed design stage of an education centre at the solar farm site which aims to educate the broader Australian community.

Further information can be found on the Sunshine Coast Council website.



# Gold Coast Light Rail: Stages 1 and 2

The Gold Coast Light Rail (branded G:link) has the intended benefits of easing traffic congestion and reducing emissions by taking cars off the road. The project improves accessibility between Brisbane and the Gold Coast, while providing a low carbon public transport alternative on the Gold Coast, where population growth and tourism are expected to increase.

Stage 1 has been operating since June 2014. It consists of a 13 kilometre, 16 station electric transport corridor connecting high density precincts using 14 electric trams.

Stage 2 has been operating since December 2017. It included a 7.3 kilometre extension of the line and is a three station electric transport corridor that enables the transportation of approximately 3,000 passengers per hour. Using four additional electric trams, Stage 2 connects the light rail from the Gold Coast University Hospital to the electrified rail network at Helensvale, which in turn connects directly to the South East Queensland Citytrain network. As part of the project, 1,400 'Park and Ride' spaces were also provided.

Since revenue operating services began in July 2014, more than 47.6 million passenger trips have been taken on the Gold Coast Light Rail.

Further information on the Gold Coast Light Rail and future stages can be found on the City of Gold Coast website.



# Citytrain network

The Citytrain network is an integrated passenger rail service connecting South East Queensland's population centres and Brisbane's domestic and international airports by electrified rail. It provides low carbon transport options in the South East Queensland region, which contains around 70 per cent of the State's population.

The Citytrain network includes 152 stations, 880 kilometres of tracks, platforms, signalling and other infrastructure crucial to the operation of the network. This existing urban network includes the Redcliffe Peninsula Line.

The average daily patronage is approximately 151,250 passengers and on each weekday, more than 900 services are operated on the Citytrain network.

Further information on the Citytrain network can be found on the Queensland Rail website.

## Redcliffe Peninsula Line

### Part of the Citytrain network

The Redcliffe Peninsula Line is a 12.6 kilometre dual-track passenger line that connects the Moreton Bay region to Brisbane. The region is estimated to be home to over 430,000 people and is the third largest local government population in Queensland and Australia. It is identified as a key growth corridor north of Brisbane and is expected to grow to over 618,000 people by 2036.

This project provides integrated low carbon public transport in a region heavily geared towards transport by car. Revenue operating services began in October 2016. In calendar year 2019, the Redcliffe Peninsula Line facilitated around 2.4 million passenger trips and the equivalent of around 70 million passenger kilometres.

A quarter of Moreton Bay's residents live in the rail corridor. Prior to the establishment of the Redcliffe Peninsula Line, residents were not connected to the South East Queensland Citytrain network. Many commuting residents relied on buses or car transport to get to and from work in Brisbane city.

Further information can be found on the Department of Transport and Main Roads website.



Kippa-Ring station on the Redcliffe Peninsula Line





New Generation  
Rolling Stock

## Citytrain rolling stock

### Part of the Citytrain network

The Citytrain fleet is made up of 207 three car trains and the average daily patronage is approximately 151,250 passengers. Each weekday, more than 900 services are operated on the Citytrain network.

All of the rolling stock on Queensland's Citytrain network is electric and air conditioned. The New Generation Rolling Stock project has renewed more than 50 per cent of the Citytrain fleet with modern and efficient trains.

Further information can be found on the Queensland Rail website.

## New Generation Rolling Stock

### Part of the Citytrain network

This new generation rolling stock advances the South East Queensland electric train fleet to meet the growing demand for low carbon public transport services. The 75 new six car electric trains constitute a significant proportion of the total train fleet. The electric trains also feature energy efficient LED cabin lighting and braking technology that recovers heat energy from braking that would otherwise be lost. The project includes a new purpose built maintenance centre that uses solar panels to supplement power usage and manages storm water with dedicated bio-basins.

The first trains entered the service in 2017 and, as at February 2020, all 75 trains had entered service. The trains operate across the entire South East Queensland passenger rail network and are expected to increase the efficiency and reliability of the low carbon transport network in the area of Queensland with the highest population density.

Further information can be found on the Department of Transport and Main Roads website.

## Tilt trains rolling stock

Queensland Rail operates and owns two electric powered tilt trains for long distance travel between Brisbane, Bundaberg and Rockhampton. The trains consist of six cars each and cover approximately 350,000 kilometres annually. These recently refurbished tilt trains carry approximately 180,000 passengers per year, for journeys usually completed by car or air travel.

The tilt trains operate on the section of the historic North Coast Line between Brisbane and Rockhampton. This section was completed at the turn of the 20th century and electrified in 1989.

Further information can be found on the Queensland Rail website.

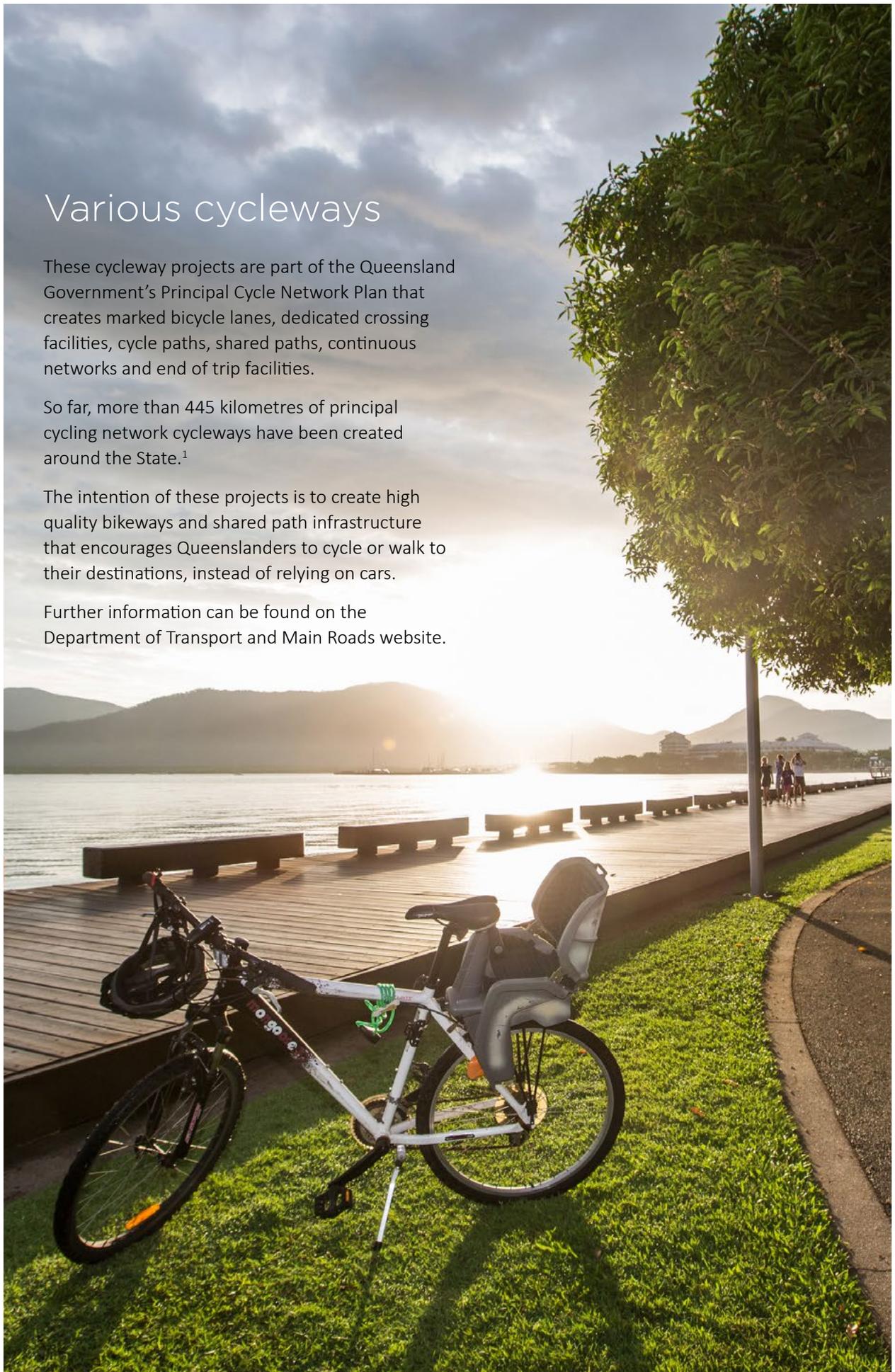
## Various cycleways

These cycleway projects are part of the Queensland Government's Principal Cycle Network Plan that creates marked bicycle lanes, dedicated crossing facilities, cycle paths, shared paths, continuous networks and end of trip facilities.

So far, more than 445 kilometres of principal cycling network cycleways have been created around the State.<sup>1</sup>

The intention of these projects is to create high quality bikeways and shared path infrastructure that encourages Queenslanders to cycle or walk to their destinations, instead of relying on cars.

Further information can be found on the Department of Transport and Main Roads website.



## Independent third-party assurance

QTC is committed to complying with its Green Bond Framework and ensuring the use of proceeds are appropriately allocated. Accordingly, QTC has appointed DNV GL as an independent and accredited assurance provider. DNV GL is an accredited verifier with the Climate Bonds Standard. They combine leading technical and operational expertise, risk methodology and in-depth industry knowledge, to ensure trust and confidence is achieved.

DNV GL provides:

- Annual verification that QTC CBI-Certified Green Bonds meet the CBI Standard and associated sector criteria.
- Verification that QTC's Green Bond Framework is in accordance with the ICMA Green Bond Principles and is consistent with the Climate Bonds Standard.



## About QTC

As the Queensland Government's central financing authority, QTC plays a pivotal role in securing the State's financial success.

QTC's role is to:

- source and manage the debt funding for the State in the most cost-effective manner,
- provide financial risk management advisory services, and
- assist the State's public sector entities to invest surplus cash via cash management facilities and a cash fund.



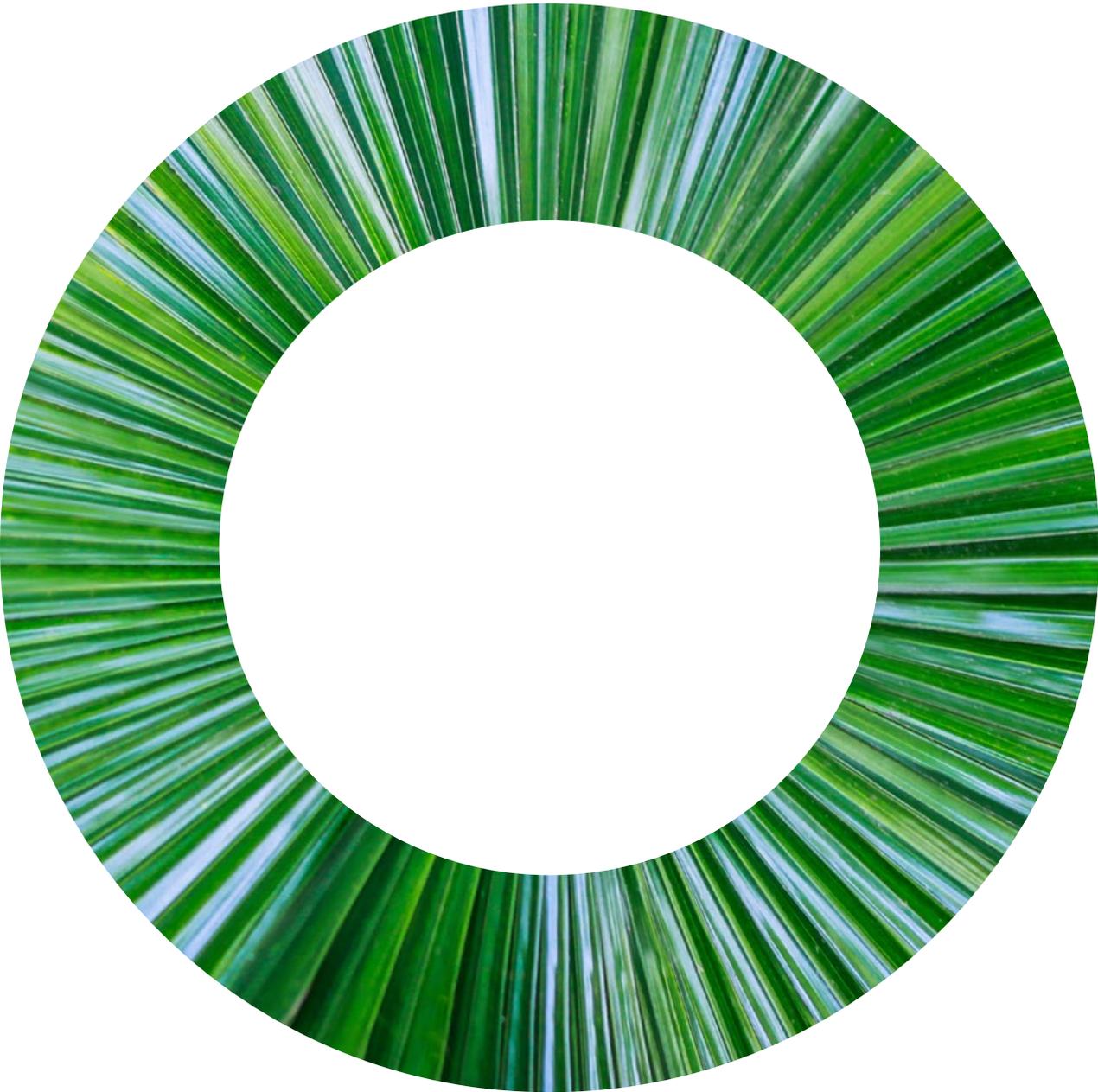
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