INVESTING IN AUSTRALIA'S **INFRASTRUCTURE SECTOR**

> It is absolutely critical that the infrastructure assets of today contribute to the overall emissions reduction task that we are facing. Through our investments, the CEFC is targeting comprehensive and sustained improvements to the carbon footprint of our infrastructure assets.

CEFC CEO
Ian Learmonth

Infrastructure assets are central to our economic and social well-being. They are usually large, expensive and built for the long term. This scale means they are well placed to benefit from investments in clean energy, to lift energy efficiency, increase productivity and lower emissions.

Australia's infrastructure sector accounts for almost half our national greenhouse gas emissions, driven largely by fossil fuel consumption in energy generation. Emissions produced by passenger and freight transport, and industrial processes, are also substantial.

This presents enormous opportunity for infrastructure-related investment, to change the energy supply of infrastructure assets to accelerate a switch to lower emissions energy through on-site solar PV as well as battery storage.

There is also substantial potential to lower the emissions intensity of infrastructure assets through the implementation of a range of clean energy technologies to lift energy efficiency and lower consumption with better energy.

As institutional investors increasingly consider environmental, social and governance factors in their investment decisions, infrastructure owners face new challenges in the way they manage the energy profile of their assets. The CEFC has identified a broad range of clean energy opportunities across the infrastructure sector which can address the needs of investors as well as asset managers.

INFRASTRUCTURE SNAPSHOT

ECONOMIC CONTRIBUTION
10%+ GDP

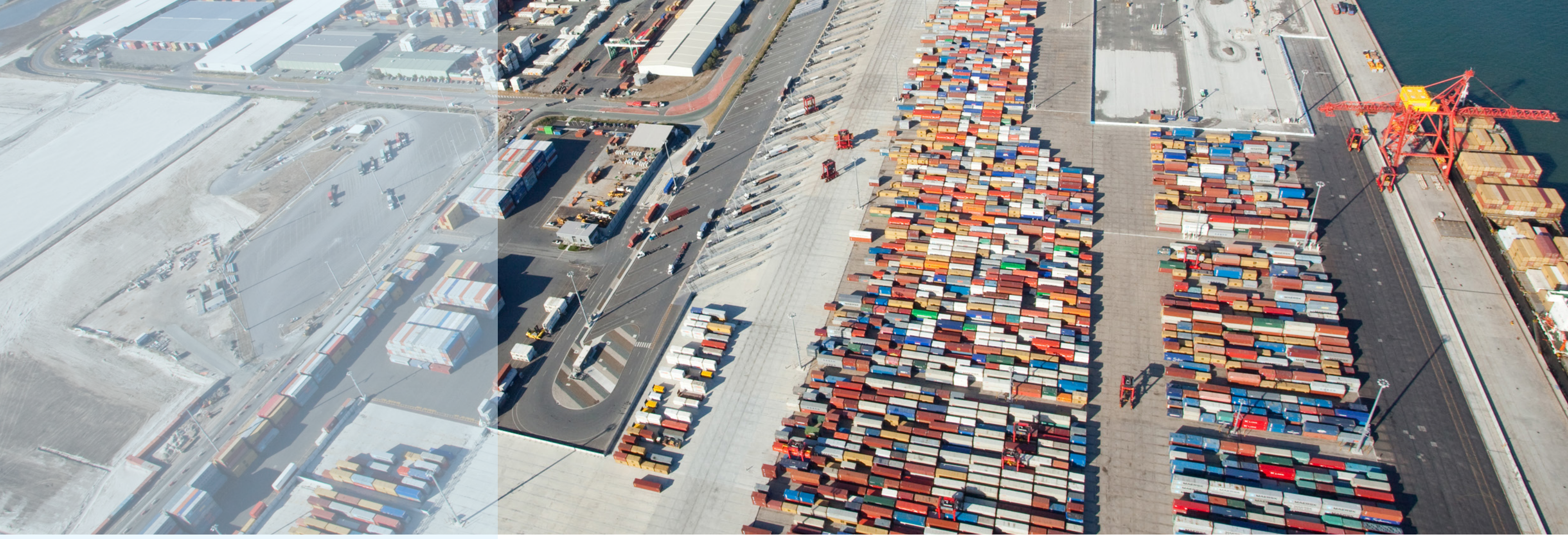
INFRASTRUCTURE CONSTRUCTION
50% TRANSPORT
23% TELCO
18% ENERGY

5,475
CARGO SHIPS
VISITING AUSTRALIAN PORTS

98M
DOMESTIC + INTERNATIONAL
AIR PASSENGERS

ROAD + RAIL FREIGHT
627.4B
TONNE KILOMETRES

Source: Australian Infrastructure Statistics – Yearbook 2017



THE INFRASTRUCTURE **INVESTOR PERSPECTIVE**

Infrastructure investors seek strong, consistent performance over the long term, with stable cash yields and protection from inflation. Diversified portfolio assets have large physical footprints and touch many areas of the economy. Recent market developments point to the importance of embedding responsible investment considerations over the asset lifecycle to enhance long-term investment outcomes:

- The Australian Prudential Regulation Authority has supported improved disclosure standards to give investors and markets more information on climate exposure and risk management.
- The Investor Group on Climate Change has reported a significant shift in how business and the financial community view climate change, observing that "carbon has moved from being seen as solely an environmental issue to being understood as an economic risk ... with financial implications for business and for investors".
- The global Generation Foundation, which advises on sustainability issues, has concluded that integrating ESG issues into investment research and processes will enable investors to make better investment decisions and improve investment performance consistent with their fiduciary duties.

> To begin with a generalisation, while climate risks have been broadly recognised, they have often been seen as a future problem or a non-financial problem. The key point I want to make today, and that APRA wants to be explicit about, is that this is no longer the case. Some climate risks are distinctly 'financial' in nature. Many of these risks are foreseeable, material and actionable now. Climate risks also have potential system-wide implications that APRA and other regulators here and abroad are paying much closer attention to.
>
> *Geoff Summerhayes, Australian Prudential Regulation Authority*

CEFC FINANCE **IN ACTION**

DEXUS
HEALTHCARE

CEFC COMMITMENT
Up to $100m equity finance

The Dexus Healthcare Wholesale Property Fund owns Australia's first portfolio of hospital and healthcare assets with an environmentally sustainable development focus. Healthcare facilities are high energy users, given their extended hours, extensive hot water, air conditioning and specialist equipment requirements. The Fund is targeting energy efficiency initiatives as well as low emissions transport options, such as electric vehicles, ride sharing and integration with local transport infrastructure, to achieve net zero carbon outcomes.

THINXTRA
INTERNET OF THINGS

CEFC COMMITMENT
Up to $10m equity finance

Australian company Thinxtra is deploying the world-leading Sigfox technology as part of a global network connecting billions of devices to the internet while consuming as little energy as possible, as simply as possible. A large amount of energy is expended in physically monitoring the location, security, condition and performance of assets. By providing a low-cost solution for tracking and monitoring these assets, owners can significantly reduce emissions as well as energy consumption through more efficient asset management.

IFM
AUSTRALIAN INFRASTRUCTURE FUND

MARKET LEADING INFRASTRUCTURE INVESTOR

27 SUPER FUNDS

6M AUSTRALIAN WORKERS

CEFC FINANCE
$150M

SUSTAINABLE CONSTRUCTION AND DESIGN

DEMAND MANAGEMENT

ELECTRIC VEHICLES

BATTERY STORAGE

ON-SITE SOLAR PV

FLAGSHIP ASSETS
5

AUSGRID

BRISBANE AIRPORT

MELBOURNE AIRPORT

PORT BOTANY

PORT OF BRISBANE

~CARBON SAVINGS

69,000
tCO_2-e
PER YEAR

= **14,775 CARS**

OR

7,450 HOMES

ASSUMES MODEST 5% IMPROVEMENT ACROSS ASSETS IN PORTFOLIO

CEFC FINANCE IN ACTION
AUSTRALIAN INFRASTRUCTURE FUND

Australia's largest infrastructure fund, the $12 billion IFM Australian Infrastructure Fund, is working with the CEFC to reduce carbon emissions at some of the nation's leading infrastructure assets across ports, airports and electricity infrastructure.

In the CEFC's first equity commitment to Australia's diversified infrastructure sector, the CEFC is investing $150 million in the fund to target emissions reduction and energy efficiency initiatives across the portfolio including five flagship assets: Ausgrid, Brisbane Airport, Melbourne Airport, Sydney's Port Botany and the Port of Brisbane.

IFM has a strong track record of working with asset management teams to deliver ESG outcomes for the benefit of key community assets and investors. The CEFC estimates that just a five per cent improvement across the assets in the portfolio could abate almost 69,000 tonnes of CO_2-e annually. This is equivalent to removing 14,775 cars from the road each year, or providing electricity to about 7,450 homes a year.

IFM counts 27 Australian superannuation funds among its 284 institutional investors. It invests on behalf of six million Australian workers, among 15 million pension fund members globally.

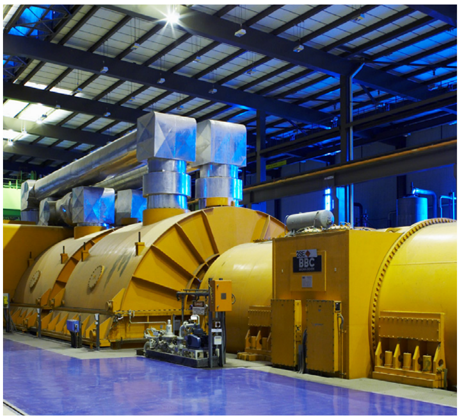
> IFM is a leader in sustainable investment. With the support of the CEFC, we will accelerate our program of measuring, reporting, and decreasing emissions from Australian infrastructure assets. The fact that this is the first commitment by the CEFC to an infrastructure fund reflects our alignment in a cleaner future.

Kyle Mangini, IFM Investors Global Head of Infrastructure

LOWERING INFRASTRUCTURE EMISSIONS
WITH IFM AUSTRALIA

Assess the upfront costs and paybacks of clean energy investments to accelerate the adoption of energy efficiency and lower emissions technologies to increase asset value

Implement carbon benchmarking, including pathways and KPIs for the implementation of emissions reduction initiatives across the portfolio



Adopt an effective and simple framework for assessing the impacts of climate change in line with the international Task Force on Climate-Related Financial Disclosures

Increase transparency around the emissions performance of the fund through annual reporting on emissions intensity including the five flagship assets

MOOREBANK LOGISTICS PARK

LANDMARK PROJECT TO REDUCE ROAD FREIGHT EMISSIONS

CUT TO INTERSTATE FREIGHT TRUCK JOURNEYS:

DAILY
93,000KM
YEARLY
34,000,000KM

GENERATE
65
GWH/YEAR

FROM ON-SITE RENEWABLE ENERGY

NET CO_2-e REDUCTIONS

2+ MILLION TONNES

OVER 40-YEAR PERIOD

CEFC FINANCE IN ACTION
MOOREBANK LOGISTICS PARK

Leading freight and logistics company Qube Holdings Limited is developing the nationally-significant Moorebank Logistics Park in south-western Sydney to take emissions-intensive trucks off Australian roads by increasing the use of rail networks to distribute containerised freight to and from Port Botany.

The project, which has secured up to $150 million in CEFC debt finance, will also incorporate large-scale renewable energy sources. It is expected to reduce freight truck emissions by more than 110,000 tCO_2-e a year, by switching containerised freight transport from road to rail.

Through this investment, the CEFC is working with Qube to help influence project engineering, construction and design decisions. The project will also benefit from built-in clean energy technologies throughout its useful life, while demonstrating what is possible for the next generation in low emissions transport and freight facilities.

The Moorebank Logistics Park is being developed across 243 hectares in south-western Sydney, taking advantage of its location near the Southern Sydney Freight Line, M5 and M7 motorways and in an area of rapid population and economic growth.

> Being able to deliver a faster and more reliable supply chain that creates savings for our customers – as well as remove thousands of truck trips from our roads at the same time as delivering very significant environmental benefits – is a great trifecta.

Qube Holdings Managing Director Maurice James

CLEAN ENERGY TRANSFORMATION
MOOREBANK 2030 GOALS

Reduce the distance travelled by container trucks on Sydney's road network by 150,000 kilometres every day, saving 73,000 tCO_2-e of emissions annually

Generate 65,000 MWh/year from renewable energy sources installed on site, capable of powering over 10,000 homes

Reduce the distance travelled by long distance interstate freight trucks by 93,000 kilometres every day, saving 41,000 tCO_2-e emissions annually

Deliver net annual carbon emissions savings equivalent to removing 11,000 vehicles from the road for a full year, or burning 25,000 tonnes of coal

PROVEN TECHNOLOGIES
TO LOWER EMISSIONS

- Improve energy efficiency to lower consumption and energy emissions
- Mode switching from road to rail; finance for electric vehicles; plant and equipment
- Productivity gains with improved congestion management; real time data use
- Invest in biofuels and bioenergy and related processes and infrastructure
- Future proof assets to deliver resilient and sustainable infrastructure

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

The International Task Force on Climate-Related Financial Disclosures (TCFD) is a global initiative designed to help organisations and investors understand the potential impact of climate change on their operations, and on the broader economy.

The TCFD encourages voluntary and consistent climate-related financial risk disclosures to enable companies to provide important emissions-related information to investors, lenders, insurers and other stakeholders. The reporting covers performance against the three levels of greenhouse gas (GHG) emissions: Scope 1, 2 and 3.

The TCFD has reported that climate-related risks affect most economic sectors and industries. While changes associated with a transition to a lower-carbon economy present significant risk, they also create significant opportunities for organisations focused on climate change mitigation and adaptation solutions.

CEFC infrastructure-related investments focus on encouraging transparency in reporting on emissions. This includes identifying appropriate benchmarks and adding value through deeper operational insights, to encourage the adoption of investment policies which optimise performance and enable the uptake of clean energy technologies.

CARBON EMISSIONS

SCOPE 1
All direct GHG emissions

SCOPE 2
Indirect GHG emissions from the consumption of purchased electricity, heat or steam

SCOPE 3
Indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions, e.g. the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities

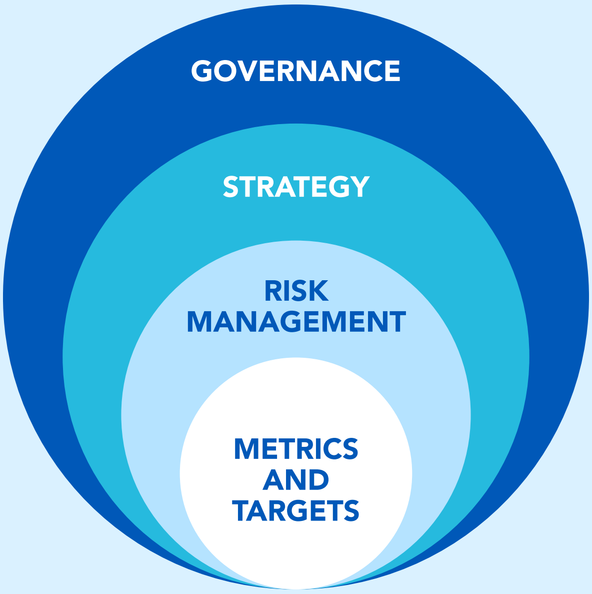
CORE ELEMENTS OF RECOMMENDED CLIMATE-RELATED FINANCIAL DISCLOSURES

GOVERNANCE
The organisation's goverance around climate-related risks and opportunities

STRATEGY
The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning

RISK MANAGEMENT
The process used by the organisation to identify, assess, and manage climate-related risks

METRICS AND TARGETS
The metrics and targets used to assess and manage relevant climate-related risks and opportunitiies



> For many investors, climate change poses significant financial challenges and opportunities, now and in the future. The expected transition to a lower-carbon economy is estimated to require around $1 trillion of investments a year for the foreseeable future, generating new investment opportunities.

International Task Force on Climate-Related Financial Disclosures

FLEXIBLE FINANCE FOR **CLEAN ENERGY INVESTMENT**

CEFC **DIRECT**

Our direct investments can include both debt products and equity investments, or a combination of both

DEBT MARKETS

We help unlock new sources of finance for investment across the clean energy sector

INVESTMENT **FUNDS**

We invest in major projects, together with other investment funds, in order to catalyse additional investment in clean energy

INNOVATION FUND

We invest in innovative technologies and businesses that benefit from growth or early stage capital

ASSET **FINANCE**

Our co-finance programs facilitate investment in smaller-scale clean energy projects

WHY INVEST IN **CLEAN ENERGY**

- Lower operating costs over the lifecycle of the asset
- Lower energy consumption, waste and carbon emissions through improved processes and asset design
- Create value and boost productivity through innovative technology and design
- Insulate your operations from volatile and rising energy prices
- Achieve cost effective upgrades to energy efficient vehicles, equipment, buildings, facilities and related infrastructure
- Enhance community engagement by demonstrating real action on emissions reduction
- Deliver meaningful progress on ESG and climate risk strategies, meeting investor preferences for sustainable assets

ROLE OF THE CEFC

As a specialist financier, the CEFC works with the infrastructure sector to help drive investment decisions that lower emissions while meeting the evolving needs of investors.

The CEFC supports best practice and market leading design, construction and operations, financing measures to enable an increased focus on renewable energy and energy efficiency technologies at the individual asset level. This includes the development of investment policies which support net zero emissions outcomes.

We also encourage increased transparency around emissions performance, via asset-level energy and emissions performance reporting and benchmarking against internationally-accepted Science Based Targets.

The CEFC invests in infrastructure projects as part of our Sustainable Cities Investment Program, which aims to invest $1 billion into clean energy initiatives in Australian cities over 10 years.

INVESTMENT OPPORTUNITIES

ECONOMIC ASSETS

- Airports
- Seaports
- Roads
- Energy generation
- Transmission and distribution
- Water treatment
- Communications

TRANSPORT ASSETS

- Freight and passenger transport
- Electric vehicles
- EV charging networks
- Aviation
- Rail
- Maritime

SOCIAL/ PUBLIC ASSETS

- Health
- Education
- Defence housing
- Sporting, cultural
- Courts and correctional facilities
- Emergency services

ABOUT THE **CEFC**

The CEFC is a specialist clean energy financier, investing with commercial rigour to increase the flow of finance into renewable energy, energy efficiency and low emissions technologies. We invest in projects with the strongest potential for decarbonisation, including low carbon electricity, such as solar, wind, battery storage and bioenergy; ambitious energy efficiency, such as property, infrastructure, manufacturing and agribusiness; and electrification and fuel switching, such as vehicles and biofuels.

cefc.com.au

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