ROAD TO RETURN
Institutional investors and low carbon solutions
The Investor Group on Climate Change (IGCC) is a collaboration of Australian and New Zealand institutional investors and advisors, managing over $1.6 trillion in assets under management and focusing on the impact that climate change has on the financial value of investments. IGCC aims to encourage government policies and investment practices that address the risks and opportunities of climate change. [www.igcc.org.au](http://www.igcc.org.au)

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TABLE OF CONTENTS

EXECUTIVE SUMMARY .............................................................................................................1
INVESTOR SIGNPOSTS .............................................................................................................2
METHODOLOGY .......................................................................................................................3
DEFINING ‘GREEN’ INVESTMENTS .........................................................................................4
GREEN INVESTMENT ACTIVITY .............................................................................................7
  Which asset classes are considered favourable to green investments?..................8
  Future green investment opportunities ................................................................. 10
  Setting targets for green investments ................................................................. 12
BARRIERS TO GREEN INVESTMENT ...................................................................................14
CONCLUSION ..........................................................................................................................16
References ...............................................................................................................................17
It is now widely acknowledged, that institutional investors have a critical role to play in achieving the ambitious goals of the Paris Agreement. The challenges of transitioning to a net zero emissions economy will require an unprecedented level of capital investment and represent a massive market signal to the global economy. The IEA estimates that US$75 trillion in low carbon investments and energy efficiency combined will be required to limit global warming to less than 2°C.

The Investor Group on Climate Change (IGCC) has undertaken this study of the local market due to increasing demand from broader stakeholders to better understand the green investment landscape and potential barriers for long term institutional investors to allocating further capital towards the transition to a low carbon world.

The insights presented in this report are intended to provide a snapshot of current investor sentiment, highlighting some of the factors driving investor thinking and behaviour as they seek to respond to climate change risks and pursue emerging low carbon investment opportunities.

The report provides the collective views of Australian and New Zealand investors with funds representing over AU$328bn in assets under management surveyed in June 2017. These investors include superannuation funds, asset managers and sovereign wealth funds. Following the survey, a deeper dive was undertaken with 50 IGCC member participants in August 2017. This enabled a further exploration of the findings and key insights identified.

We intend to reproduce this report on an annual basis to help our collective understanding of the key drivers and barriers for investors seeking green investments and to identify where the key opportunities are emerging in regions and asset classes.

The survey has been undertaken against a backdrop of a rapidly evolving transition to a low carbon world. Global clean energy investment in 2015 was double that of coal and gas at nearly US$350 billion, energy efficiency opportunities in transport, industry, power grids and buildings continue to grow and are currently more than US$300 billion year, while climate-resilient agricultural practices are on the increase.

In addition, there will be substantial investment demands to increase the resilience of our infrastructure to the effects of climate change itself with current estimates at US$280-500bn per year by 2050.

So where are we today? How are institutional investors thinking about the opportunities, and the challenges of scaling up investment? What tools are investors using and how are impacts being measured?
INVESTOR SIGNPOSTS

How institutional investors are thinking about low carbon investment, and where they are investing.

INVESTORS ARE STILL DEFINING GREEN INVESTMENT IN THEIR OWN WAY

Despite the proliferation of low carbon investment frameworks and definitional taxonomies, the majority of investors are using their own internal methodology to define green investment.

AUSTRALIAN AND NEW ZEALAND INVESTORS HAVE A LARGE APPETITIE FOR MORE GREEN INVESTMENT

100% of investors surveyed by IGCC stated that they intend to increase their green investments over the coming years.

BUT INVESTORS ARE NOT PUBLISHING TARGETS FOR GREEN INVESTMENT

Despite strong intent, 100% of investors surveyed by IGCC stated that they do not intend to publish a green investment target at this stage (although there are other factors at play).

LACK OF INVESTABLE DEALS AND POLICY UNCERTAINTY ARE KEY BARRIERS

- 90% of investors identified lack of investable opportunities with appropriate risk return factors as the single largest inhibitor to growing investment.
- 80% said policy or regulatory uncertainty remained a major challenge for investment.
- The two issues may not be entirely unrelated.
This report looks to provide deeper insight into the preferences for current and future investment in climate solutions and perceived barriers for investment by asset owners and fund managers in Australia and New Zealand.

During May-June 2017, the IGCC undertook a quantitative survey of institutional investors regarding current and future appetite for green investments.

The questions were modelled on a survey conducted by the Institutional Investors Group on Climate Change (IIGCC) who undertook a similar survey of European members in March 2017.

A total of 19 participants representing over AU$328 billion responded to the Australian survey, comprising 13 asset owners and 6 fund managers. Additional qualitative information was also sought to enable participants to provide further depth to their responses.

The questions focused on a range of topics including the methodology and definitions used to define green or low carbon investments, current implementation of green investment strategies across both markets and asset classes, targets, measurement and monitoring of impacts and barriers to green investment.

Following the survey, a deeper dive was undertaken with 50 IGCC Member participants in August 2017. This enabled a further exploration of the findings and key insights identified.

Finally, this report also draws on information from the Low Carbon Investment Registry. This was launched in 2014 by the Global Investor Coalition on Climate Change. This was the first public global online database capturing low carbon investments made by institutional investors.
DEFINING ‘GREEN’ INVESTMENTS

Investors use a variety of methodologies to assess and measure green investments with most preferring to build their own.

Despite the proliferation in recent years of frameworks and methodologies aimed at defining ‘green’ or low carbon investment, no one definitional methodology has emerged as a clear winner for investors. When it comes to setting strategy and pursuing low carbon investment, investors are developing their own approach to defining green investments. They are however, still referencing a number of existing standards.

Over half of all participants in the Australian survey indicated that they were using their own methodology, followed by the Low Carbon Investment (LCI) Registry (24%) and the Climate Bonds Initiative (CBI) at 11%. Experience suggests these findings are consistent with European investors.

Several methodologies have emerged in recent years to help define climate related investments, as shown below. Whilst the majority have their own unique approach, some of the methodologies are also quite similar. For example, the CBI and the LCI have significant overlap. The difference is in how they are used. For example, an investor would use the CBI to determine if a product or investment qualifies as a green bond, whilst the LCI is purely to capture the flow of institutional capital into climate related investments.

“We do not get too concerned about green taxonomy other than we want to see standards continue to develop. We are most interested in a common sense approach to identifying both ‘green’ and ‘brown’ investments”.

EXAMPLES OF METHODOLOGIES AND FRAMEWORKS FOR DEFINING GREEN

• Climate Bonds Initiative Taxonomy and Standards
• IFC Definitions and Metrics for Climate-Related Activities
• Green Investment Bank definition of ‘green impact’
• Green Bond Principles & Projects Taxonomy
• FTSE Russell Green Revenues
• Low Carbon Investment Registry taxonomy
A recent OECD report noted the many criteria which investors used to define green depended on investor values. It may also be that methodologies have only recently emerged and uptake may grow over time. It could also reflect that approaches for defining green investment are more effective within a sector or for a product rather than applied at the portfolio level. For example, Australian green building standards such as NABERS Energy Rating and Green Star. Reporting frameworks have also emerged, such as GRESB, for real estate and infrastructure.

Investors may also be choosing to de-risk their portfolios rather than investing in green. For example strategies that exclude or tilt away from high carbon intensive assets or investments rather than investments focused on climate related opportunities. This may have precluded the use of several methodologies and driven the need to generate internal approaches for defining green.

The need to standardise the definition of green investments may become increasingly important due to the recommendations recently released by the global Taskforce on Climate-related Financial Disclosures (TCFD). This encourages companies and investors to disclose both the risks and opportunities of transitioning to a low carbon economy and ensure it is captured as part of the forward-looking business strategy. Standardisation would also help with the development of relevant products to increase the flow of capital to climate related investments.

Figure 1 – Methodologies used for defining and assessing green investments

- Other (Internal methodology) 53%
- Low Carbon Investment Registry 24%
- Climate Bonds Initiative 11%
- Green Bond Principles 6%
- Green Investment Bank 6%
THE LOW CARBON INVESTMENT REGISTRY

The Low Carbon Investment (LCI) Registry definition of green investments largely relied on the taxonomy developed by the Climate Bonds Initiative (CBI). The guiding principle being what investments will still be considered low carbon in 2050.

The definition of a low carbon investment includes the following categories: energy, building, industry, waste pollution and carbon sequestration, transport, information and communications technology and forestry and agriculture. A ‘multiple’ category was added to allow the reporting of other investments types (in addition to bonds) in public and private equity, fixed income and carbon markets. Adaptation was not included but there is a recognition of the need to include this in the future.

The Low Carbon Investment (LCI) Registry was the first public, online database showing examples of global low carbon investments made by institutional investors. The Global Investor Coalition on Climate Change groups created the LCI Registry which was launched September 2014.

For further information see: http://globalinvestorcoalition.org/low-carbon-investment-registry/
GREEN INVESTMENT ACTIVITY

“We have a variety of green investments but these have not come about as the result of a green investment strategy, rather market dynamics for green investments and our integration of ESG factors have led us to favour green investments (in most asset classes) over alternatives”.

Over half of respondents have already allocated funds to green investments across multiple markets and asset classes. They also intend to increase green investments over the coming years.

The majority of participants were already implementing green investment strategies (Figure 2). There was a slight preference to International over Australia as a destination, as shown in Figure 3. Developed Markets were identified as more favourable than Emerging Markets for existing green investments. Those who were not currently active in Emerging Markets were also not proactively looking to these markets for future climate-related investments (see Figure 3).

Future green investment appetite for Emerging Markets will be a trend to watch. Current indications estimate that up to US$23 trillion exists in Emerging Markets for investment in climate solutions between now and 2030. Given the size of the opportunity, there is potential for a shift in sentiment if institutional investors are able to allocate capital to green opportunities in these markets. This would require the development of appropriate products and an increase in governance standards for long term investors. Despite this, investors still had a clear preference for Developed Markets looking forward.

Figure 2 – proportion of investors currently implementing green investment strategies

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>54%</td>
<td>46%</td>
</tr>
</tbody>
</table>
Which asset classes are considered favourable to green investments?

Real Estate and Fixed Income dominated the investment landscape for participants, although allocations to green investments were made across a broader range of asset classes.

Real estate is a popular green asset class in Australia, particularly in the commercial building space. This may be a reflection of Australia as a well-established green building market, with more than 21 million square metres of Green Star certified green building space and over 16 million square metres with an average NABERS rating of 4.3.\(^7\)\(^8\)

Participant feedback suggested this may also be due to other factors. The ease of assessing energy efficiency and green investments in real estate has a long history in Australia through NABERS and Green Star as core frameworks. Mandatory disclosure regulations at property lease and sale may have also increased awareness of green credentials in this asset class.\(^9\) This highlights the way in which regulatory or policy signals and supporting frameworks can unlock low carbon or green investment.

The strong growth in green bonds may explain the large allocation to fixed income in climate-related investments (Figure 4).\(^10\) An OECD report identified the same trend from European investors of an increase of investments in green bonds. The green bond market has grown from a concept in 2007 to almost US$100bn in annual issuance and over US$200bn total outstanding.\(^11\) Like real estate, this may also be a reflection of the emerging frameworks, such as the Climate Bonds Standard, for ease of assessing and certifying capital that is being allocated to climate change solutions in this asset class.

Surveyed investors also had existing allocations to green investments through listed equity, private equity, infrastructure and other asset classes including forestry and agriculture (Figure 4).
Cbus Property as green investment:
171 Collins Street, Melbourne

171 Collins Street Melbourne combines a 30,000 sqm premium grade office building integrated with a 100-year old building fronting Collins Street. This Cbus Property development was completed in 2013 and the first commercial building in Victoria to achieve a 6 Star NABERS Energy Rating, and only the second in Australia. The difference between a 5 Star and a 6 Star rating equates to running the asset with under 50% of its intended carbon emission, so a 6 Star rating is an outstanding result for the building. The 6 Star rating was achieved without the assistance of zero emission renewable energy or green power purchase.

Some of the building features that contribute to the high Green Star and NABERS Energy ratings include:

- Floor to ceiling double glazing
- Ceramic frit to reduce heat gain and glare
- Dedicated waste storage area for separation, collection and recycling
- Advanced rainwater and grey water reuse system
- Highly flexible under floor air conditioning
- Integrated lighting and security
- Destination controlled lifts

Investa Commercial Property Fund Closes AU$100 Million Green Bond Issuance

In April 2017, Investa Commercial Property Fund (ICPF) announced a 10 year, $100 million Australian dollar, Green Bond issuance, with a semi-annual, fixed coupon of 4.25% and a maturity of April 21, 2027.

The bonds are rated ‘A-‘ by Standard & Poor’s with proceeds to be used to retire existing debt facilities and will be fully allocated against a portfolio of low carbon buildings in ICPF’s portfolio.

The issuance, which was oversubscribed, has been approved as a ‘Certified Climate Bond’ by the Climate Bonds Initiative.
Future green investment opportunities

Desire to invest more broadly across multiple asset classes was evident, with the strongest preference for listed equities. There was a strong preference to actively consider future green investments in listed equities (Figure 4). Feedback from investors suggests this may reflect a shift from the focus on risk management and divestment to include the allocation of capital to opportunities. New products are being developed that go beyond carbon footprinting and assess the contribution of a company to the low carbon economy. For example, FTSE Russell has released a data model which can track companies that generate green revenues to support investors measure the transition to a low carbon economy. MSCI has also developed similar capabilities as part of its MSCI Global Environmental Index.

As data quality continues to improve this trend should be accelerated, especially following the release of the recommendations by the Taskforce on Climate-related Financial Disclosures (TCFD). This requires companies to disclose the risks and opportunities posed by climate change on the forward-looking strategy and could provide investors with increased transparency for green investments.

The dominance of real estate and fixed income may reduce as participants strengthen their intention to actively consider green investments more broadly. This could reflect an increase in the availability of investment products across other asset classes. It is unlikely, however, the quantum of investments in green will reduce. For example, global green building investment is doubling every three years.

Allocation to infrastructure and private equity were also asset classes where participants saw future areas for green investment (Figure 4). Given the current global investment in clean energy close to AU$350 billion in 2015, this could provide considerable future opportunities for institutional investors. This is supported by reports of an increase in sentiment from Infrastructure Partnerships Australia around investing in Australian renewable infrastructure.

While the type of investments in infrastructure wasn’t explored in detail in IGCC’s survey, with the exception of sustainable transport, anecdotal feedback suggests that green investments beyond renewables are increasingly being considered including the potential for increased energy efficiency of existing assets. Participants also indicated they were actively seeking climate-related investments in other assets including forestry and agriculture, with the exception of Yieldco.

![Figure 4– Asset classes in which investors are currently active or considering green investments](image-url)

- Listed Equity
- Private Equity
- Infrastructure (Sustainable transport)
- Infrastructure
- Fixed Income
- Real estate
- Other (Inc. Forestry & Agriculture)
- Yieldco

Legend: Active, Considering investment, Not intending to invest
Local Government Super - achieving climate impact and returns for members

Local Government Super (LGS) invests around AU$369 million in private equity. Of this, around 10% is invested in the Macquarie Clean Technology Fund – a well-diversified private equity fund of funds managed by 12 underlying specialist managers. It focuses on technologies that seek to improve energy efficiency and reduce negative environmental impacts.

Attunga runs a similar amount on behalf of LGS. Its Power and Enviro Fund invests in the power market and related derivative products, focusing on the Australian national electricity market. The mandate can also invest in CO2 emissions, weather, gas, water and other energy and environment related markets.

Investments in these funds must meet LGS’s target returns and go through the standard due diligence process: there is no question of ‘trading off’ financial and environmental returns. LGS believes these investments help to offset the risk of punitive future emissions legislation and benefit from the financial returns available from emerging low-carbon sectors and technologies.

Colonial First State Global Asset Management - HH Ferries

The world’s largest battery-operated ferries will reduce greenhouse gas emissions by 50%. From 2017, commuters will be able to travel by battery-operated ferry, following investment in HH Ferries Group by First State Investment’s unlisted infrastructure team. The historic ‘Floating Bridge’ ferry route – an area traversed by Vikings as early as the 11th century – provides a connection between Helsingør (Denmark) and Helsingborg (Sweden) in just 20 minutes. And winding the clock back to last century, the conversion to battery-operated ferries will see the crossing once again become carbon neutral, displacing the equivalent of 18,000 tons of carbon dioxide.

Conversion to battery power reduces risks and exposure to price volatility of other fuel sources. HH Ferries is the first in the world to convert vessels of this size to 100% battery power to service such a high frequency route. The technology that powers the ferries can recharge the 640 batteries on each vessel (equivalent to 10,700 car batteries) with voltage transmission of up to 11kV. The battery-operated ferry Tycho Brahe is now going through its final test procedures, with the Aurora to follow at the end of the European summer. The investment is economically viable and pays back over the medium term. Due to the innovative nature of the project, HH Ferries received a grant of EUR 13.2 million from the European Innovation & Networks Agency.
Setting targets for green investments

Investors do not appear to be adopting specific targets for green investment. Yet.

Despite the increase in appetite for green investments, there was clearly no intention by investors to set or publish specific targets. This finding was again supported by an OECD survey that stated whilst funds had reported green investments they had not set any targets.\(^\text{17}\)

Feedback from investors provided some further insight as to why this might be the case. Investors appear to be currently focused on ensuring the investment or strategy is assessed on its individual merits and meeting the required risk return profile rather than setting specific green targets. It could also reflect the current preference to measure carbon risk across a portfolio or asset class rather than measuring specific opportunities for green investment. This would appear to support feedback that investors are predominantly focused more on mainstreaming and embedding a holistic approach to climate change management (both risks and opportunities) rather than carving out low carbon investment specifically.

Some investors have developed responsible investment funds that enable a member of a superannuation fund to choose green investment as an option. This may include a low carbon bias, a divestment or screening approach or a positive low carbon tilt for example.

European investors would appear to have somewhat more of an appetite to set targets, something which may be driven by factors such as regulation. Article 173 of the French Energy Transition Law came into force on 1 January 2016. It strengthened mandatory carbon disclosure requirements for listed companies and introduced carbon reporting for institutional investors, defined as asset owners and investment managers.

Investors therefore have an obligation to disclose both climate related risks and green investments that contribute to the transition to a low carbon economy. Investors are required to set targets to measure progress and will need to explain if they are not achieved.\(^\text{18}\)

“We are rather fluid on targets - we just actively search for opportunities in green investments with similar risk/return profiles as other investment”.

“Difficult to have a set target when there is policy uncertainty. We do target some asset classes for green investment”.

“Difficult to have a set target when there is policy uncertainty. We do target some asset classes for green investment”.

“Difficult to have a set target when there is policy uncertainty. We do target some asset classes for green investment”.
UniSuper - providing investment options to members

UniSuper’s Global Environmental Opportunities option affords members the opportunity to invest in international companies that provide products and/or services that seek to deliver solutions to environmental challenges globally, and contribute to a more environmentally sustainable economy. This includes products and services focused on:

- alternative energy—renewable energy and alternative fuels
- clean technology—reducing energy consumption through effective power management, energy conservation and energy efficiency
- water infrastructure and technologies—addressing water scarcity, quality and infrastructure
- green building—building and operating environmentally sustainable buildings and/or offering environmentally sound products and services used in building design and construction

This option invests in a portfolio of global shares benchmarked against the MSCI Global Environmental Index. For companies to be included on this index, they must derive at least 50% of their business revenue from environmentally beneficial products and services.
Policy uncertainty and inability to achieve risk adjusted returns were clear barriers to green investment. The two may not be entirely unrelated.

The majority of investors surveyed considered both policy uncertainty and lack of deals with appropriate risk return objectives the key barriers to green investment. From experience, European investors also consider the inability to achieve risk adjusted returns the most significant barrier to green investment, whilst policy uncertainty has not been considered an issue. Liquidity was also raised as a significant issue for investors as was lack of trustee support and methodologies for defining green investments.

The Australian Prudential Regulatory Authority (APRA) has clearly indicated that climate change is a both a material risk and fiduciary obligation for institutional investors. Despite this, the Federal climate change and energy policy landscape provides little certainty. There is currently little clarity around how the government intends to transition to a low carbon economy and meet its obligations under the Paris Agreement.

Despite the recent surge in renewable energy investment, investment is still not coming through institutional investors. Superannuation funds are long term investors and need to understand the future policy landscape to appropriately price investments or assets held for long durations.

Many of the technologies required for transition to a low carbon economy are also still evolving. Therefore, investment opportunities may not be at a stage or scale that enable long term investors like superannuation funds to obtain the appropriate return for the risk of investing in new technologies. This includes commercial conditions which may bring an added dimension of issues. Even a vanilla type solar project has detailed due diligence for all aspects, as well as the regulatory risk, market risk, counterparty risk and the commercial contracting components requiring detailed assessment.
Participants also indicated that lack of trustee support was sometimes a barrier to green investment. Whilst it was ranked quite low, it still highlights that one in every four green investment opportunities could be precluded because of trustees.

**Figure 5: Perceived barriers to green investment**

- It doesn't fit with our current investment strategy
- Lack of opportunities with appropriate risk return objectives
- Lack of clear definitions about what constitutes a green investment
- Liquidity Constraints
- Lack of tools to measure and report on ‘green impact’
- Lack of consultant advice
- Lack of Trustee support
- Lack of internal resources to identify new opportunities
- Policy or regulatory uncertainty
In summary, institutional investors have strong appetite to increase their capital allocations to green and low carbon investment opportunities. This was supported by the IGCC survey, which found that 100% of respondent are intending to increase their allocation to green investments, with 55% already allocating some capital.

Mainstreaming or the overarching drive to embed climate change risk management across the portfolio is determining how investors are responding. Investors are using their standard asset allocation for allocating capital to green investments. Real estate and fixed income are currently the most commonly used asset classes, while we may soon witness a large increase in infrastructure and listed equities.

While investors are referencing a number of methodologies or frameworks to assess and measure ‘green’ investments, for the most part they are building their own definitions. This may reflect a broader trend to de-risk portfolios.

Local asset owners are not currently setting or publishing specific targets for allocating capital to green investments, beyond a broader objective to reduce or diversify their total carbon risk exposure in response to broader market or policy signals arising from the Paris Agreement. Although the release and widespread adoption of the final recommendations of the TCFD may drive a change in investor reporting behaviour.

Barriers to green investment are both the obvious and not so obvious. Lack of opportunity to appropriate risk return profile and policy uncertainty came through clearly and these two factors may be interrelated. Although liquidity was also identified as an area of concern.

Despite the recent surge in renewable energy investment, institutional investors are still not actively engaged in large scale clean energy investment. The tail effect of substantive policy uncertainty continues to be felt for long term holders of energy assets like institutional investors.

Overall, there was widespread acknowledgement of the need to continue to pursue low carbon investment opportunities to support the objectives set out in the Paris Agreement of limiting global warming to less than 2°C.

This roadmap provides an important point in time assessment of where current investor sentiment is currently placed. IGCC will continue to support growing appetite among institutional investors for low carbon investments, and to work with our members to develop investable solutions to facilitate the transition to a low carbon economy.
REFERENCES


9. The Commercial Building Disclosure (CBD) Program requires energy efficiency information to be provided in most cases when commercial office space of 1000 square metres or more is offered for sale or lease. The requirement was originally established through the Building Energy Efficiency Disclosure Act 2010. [www.cbd.gov.au](http://www.cbd.gov.au)

10. OECD, Ibid.


17. OECD, Ibid

