Periodic Review of New Zealand Green Investment Finance

Final report

31 March 2023

EY
Building a better working world

NOTICE

Ernst & Young was engaged on the instructions of The Treasury ("Client") to undertake independent periodic review of New Zealand Green Investment Finance Limited ("NZGIF") (the "Services") in relation to the periodic review mandated by the Cabinet that needs to be undertaken every five years ("Purpose"), in accordance with the Contract dated 09 September 2022.

The results of Ernst & Young's work, including the assumptions and qualifications made in preparing the report, are set out in Ernst & Young's report dated 31 March 2023 ("Report"). The Report should be read in its entirety including the transmittal letter below, this notice, the applicable scope of the work and any limitations. A reference to the Report includes any part of the Report. No further work has been undertaken by Ernst & Young since the date of the Report to update it.

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31 March 2023

Emily Howe
Manager Commercial and Institutional Performance
The Treasury
Level 3, 1 The Terrace
Wellington 6011

New Zealand Green Investment Finance Limited's Cabinet Mandated Periodic Review

Dear Emily,

Ernst & Young ("we" or "EY") has been engaged by The Treasury - Te Tai Ōhanga ("you", "the Treasury" or the "Client") to undertake independent periodic review of New Zealand Green Investment Finance Limited ("NZGIF") (the "Services") in relation to the periodic review mandated by the Cabinet that needs to be undertaken every five years ("Purpose").

Our engagement was performed in accordance with our contract for "Cabinet mandated periodic review" dated 9 September 2022 (the "Contract"). Our procedures were limited to those items described in the Contract.

The result of our work is included in our deliverable dated 31 March 2023 (the "Deliverable").

Purpose of our Deliverable and Restrictions on its use

The Purpose of this review is to assess the performance of NZGIF to ascertain the level to which it is performing against a set of criteria agreed with the Treasury and whether its objectives in place are still relevant. Our Deliverable is intended solely for the benefit and use of Treasury and is not intended to be used by anyone other than Treasury.

This Deliverable was prepared on the specific instructions of the Treasury solely for the Purpose and should not be used or relied upon for any other purpose.

We accept no responsibility or liability to any person other than to the Treasury or to such party to whom we have agreed in writing to accept a duty of care in respect of this Deliverable, and accordingly if such other persons choose to rely upon any of the contents of this Deliverable, they do so at their own risk.

Nature and Scope of Work:

Our work has been limited in scope and time, and we stress that more detailed procedures may reveal issues that this engagement has not. Our work has been designed and performed to assist Treasury in understanding the effectiveness of NZGIF (performance) and whether their mission and objectives remain relevant (strategic). Therefore, the review had a two-fold focus:

- Performance – assessing NZGIF's financial and non-financial performance and how effective it has been in fulfilling its purpose and objectives; and
- Strategic – assessing whether NZGIF's purpose and objectives are still relevant, and whether the entity is set up to succeed to meet its objectives in the context of its operating environment.

The procedures we conducted in this engagement do not constitute an audit or other form of assurance in accordance with any generally accepted auditing or other assurance standards, and accordingly we do not express any form of assurance. Responsibility for the accuracy of information provided by Treasury and NZGIF does not rest with EY.

Our work commenced on 9 September 2022 and was completed on 16 December 2022. Therefore, our Deliverable does not take account of events or circumstances arising after 16 December 2022 and we have no responsibility to update the Report for such events or circumstances.

In preparing this Deliverable we have considered and relied upon information from a range of sources believed to be reliable and accurate. We have not been informed that any information supplied to us, or obtained from public sources, was false or that any material information has been withheld from us.

We do not imply and it should not be construed that we have verified any of the information provided to us, or that our enquiries could have identified any matter that a more extensive examination might disclose (refer to Section 1.2 Approach). The findings included in this Deliverable are based on the analysis of stakeholder engagement, review of documents provided by Treasury and NZGIF, peer[1] benchmarking and performance assessments against the criteria established by EY and Treasury.

Limitations of Work:

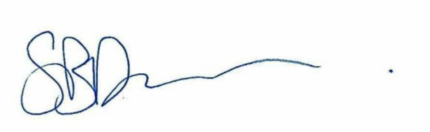
Treasury is fully and solely responsible for applying independent business judgment with respect to the services and work products provided by us, to make implementation decisions, if any, and to determine further courses of action with respect to any matters addressed in the information provided or other work product or deliverable.

The nature and content of the work product we provided has reflected the specific scope and limitations of our engagement and the amount and accuracy of information provided to us. The procedures summarized in this report do not constitute an audit, or other form of assurance in accordance with any generally accepted auditing, or other assurance standards, and accordingly we do not express any form of assurance.

Our work product is intended solely for the benefit of The Treasury, and may not be relied upon by any other party without our prior written consent.

We appreciate the cooperation and assistance provided to us during our work. We also appreciate the opportunity to work with you on this project. Should you have any questions in relation to the above or the attachments, please do not hesitate to contact Pip on [35] or Sophie on [35]

Pip Best
Partner, Climate Change and Sustainability Services



Sophie Dawson
Partner, Strategy and Transactions

[1] Identified by high level research of the Green Bank market

Table of contents

Acronyms

CEFC	Clean Energy Finance Corporation
Crown	New Zealand Government
CTG	Connecticut Green Bank
DD reports	Investment Due diligence reports
ETS	Emissions Trading Scheme
GIB peers	Green investment bank peers (global benchmarks)
GIG	Green Investment Group
NZGIF	New Zealand Green Investment Finance
RPS	Redeemable Preference Shares
SOI	Statement of Intent
SPE	Statement of Performance Expectations
SSP	Statement of Service Performance (part of the Annual Reports)
The Board	NZGIF Board of Directors
The Treasury	The Treasury - Te Tai Ōhanga

1. Executive summary

1.1 Introduction

New Zealand's green investment bank, New Zealand Green Investment Finance ('NZGIF'), was established in 2019 with a purpose to "accelerate investment to reduce greenhouse gas emissions in New Zealand". Its mandate[2] includes four key objectives:

- To make investments that lower domestic emissions.
- To make investments on a commercial basis.
- To crowd-in private capital.
- To undertake a market leadership and demonstration role.

EY has been engaged to support The Treasury - Te Tai Ōhanga ("The Treasury") with an independent periodic review of NZGIF. This review is mandated by Cabinet every five years and focuses on a:

- Performance review to assess NZGIF's effectiveness in fulfilling its purpose and objective.
- Strategic review to assess whether NZGIF's purpose and objectives are relevant and setting the organisation up for success.

This report summarises the key findings from EY's review as developed through analysis of stakeholder engagement, document reviews, peer benchmarking and performance assessments against criteria agreed with the Treasury.

1.2 Approach

The review of NZGIF was conducted through three key phases, as agreed with the Treasury:

- Phase 1: Information gathering: Phase 1 was focused on information gathering for both sections (noted above) of the review, to support EY to develop a detailed approach to Phase 2 "Assessment", that is fit for purpose and is aligned with the findings from Phase 1. The assessment approaches were presented to, and discussed with Treasury.
- Phase 2: Assessment: Phase 2 consisted of conducting the assessment of NZGIF, as designed as part of Phase 1. The Performance review and the Strategic review assessment approaches are outlined in Figure 1 and Figure 2 respectively.

  A key component of the performance review was determining what is considered "leading practice" when assessing performance of an organisation such as NZGIF. What is considered leading practice is defined in section 5.1 of this report, which outlines the approach when considering NZGIF's broad mandate, consisting of a mix of public policy and commercial objectives, and limitations on what they can invest in.

  The measurement criteria for how we assessed NZGIF are outlined in Table 1, which was established in consultation with The Treasury during the review process. Our suggestions and recommendations take into account NZGIF's maturity, which includes both their time since inception and scale.

[2] Cabinet paper DEV-18-SUB-0257: Establishing New Zealand Green Investment Finance Limited (treasury.govt.nz)

Table 1: NZGIF Objectives - Measurement criteria

Definition	Measurement Criteria
Close alignment	Closely aligns with leading practice. High levels of evidence across the portfolio, subject to comments that are relatively low risk or minor in nature.
Broad alignment	Broad alignment to leading practice. Partial evidence across the portfolio with more extensive comments and those that are higher risk or more substantial in nature.
No/little alignment	No evidence of alignment to leading practice across the portfolio.

- Phase 3: Analysis and report writing: In Phase 3, EY condensed the findings of its assessment into the report and conducted an overall analysis to ensure consistency throughout both the Performance review and Strategic review.

The procedures we conducted in this engagement do not constitute an audit or other form of assurance opinion.

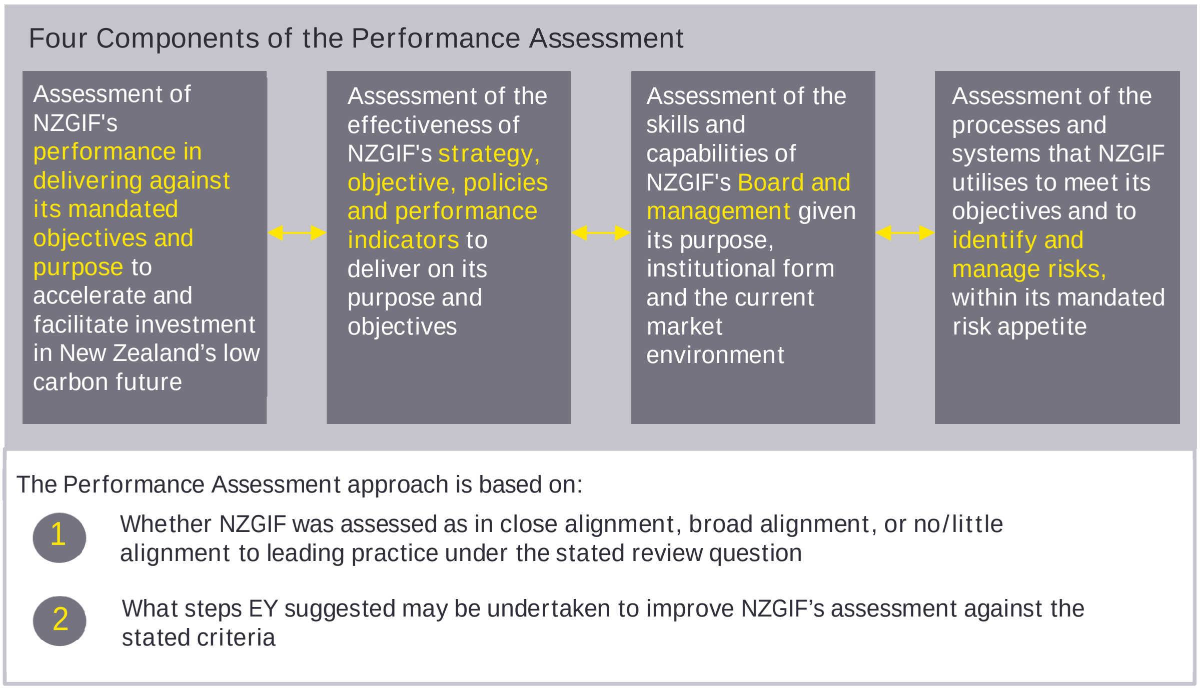


Figure 1: Overview of the performance assessment approach

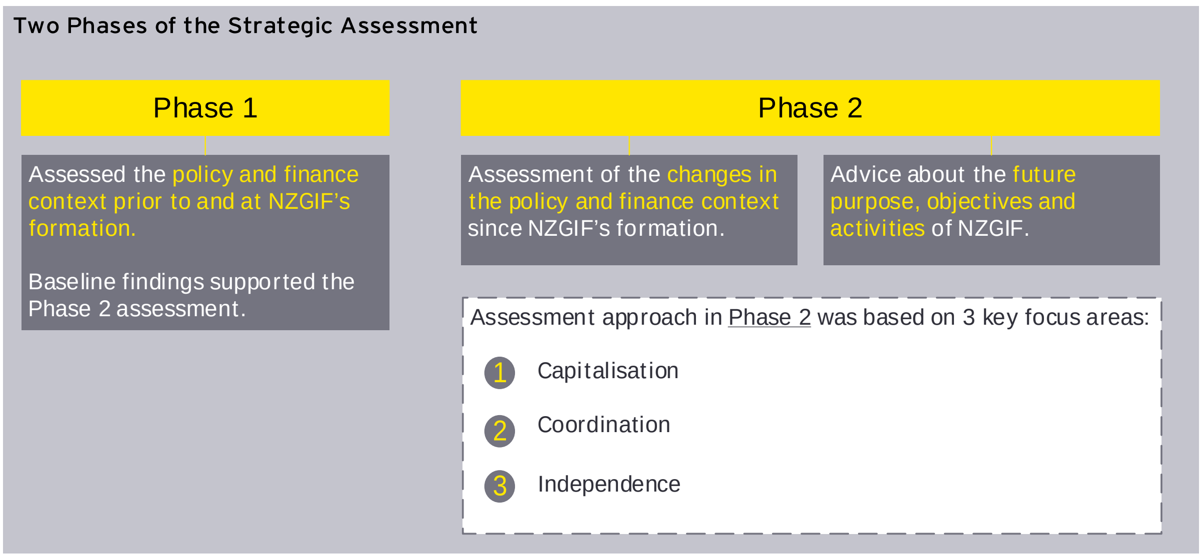


Figure 2: Overview of strategic assessment approach

1.3 Summary of review findings

1.3.1 Summary of assessment from performance review

The mix of public policy and commercial objectives is a challenging landscape to operate within, however, NZGIF has established a portfolio of investments that closely aligns with their overall purpose.

Table 2 provides a summary of the findings from the performance review. While we have attempted to capture the key issues in this section, section 1.3.1 should not be read in isolation as there is additional context provided in section 5 that should also be considered by readers of this report. Our findings consider NZGIF's maturity, a consideration of both their time since inception and size, compared to other comparable market participants.

All areas assessed in the performance review were classified as close or broad alignment with the leading practices based on our understanding of market comparisons and experience.

- Close alignment means we noted high levels of evidence across the portfolio, subject to comments that are relatively low risk or minor in nature.
- Broad alignment means we noted partial evidence across the portfolio with more extensive comments and those that are higher risk or more substantial in nature.

We highlight the importance of considering many of the operational matters from the performance review, especially those recommendations that contributed to our Broad alignment ratings, before considering those in the strategic review, particularly the recapitalisation.

We have not provided commentary on areas where we considered NZGIF is performing to a high standard i.e. aligning to leading practice. However, observations and suggestions are provided in certain sections of the performance review. These comments are not intended to be conclusive judgements, but rather to provide a framework for discussions within NZGIF and between NZGIF and Treasury. Further investigation, and implementation of our actions and considerations may be required. We acknowledge that NZGIF is evolving, and this will impact future performance reviews. However, our scope is limited to reviewing NZGIF's past performance.

Table 2: Key findings from Performance review

Item	Assessment[3]	Primary rationale
Invest to reduce emissions	Close alignment	We observed close alignment with Green Investment Bank (GIB) peers[4], including the way in which the calculations were undertaken. We viewed NZGIF's reporting of the estimated lifetime benefit reduction as useful to highlight the value of the investment. However, it does not include every assumption needed to calculate the estimation for each investment. We understand from NZGIF that this is due to the commercially sensitive nature of information to the counterparty. To fully demonstrate the benefit, an approach that fully demonstrates the reduction could be considered to better demonstrate the performance against the objective.
Invest on a commercial basis	Broad alignment	We observed many positive aspects with regards to this objective, however we suggest NZGIF's performance could improve by: • Providing a greater level of detail into how pricing / valuations were established in the investment Due Diligence (DD) reports. Where such comparables are difficult to obtain, this should be stated in the investment DD reports. • Adopting a standardised approach to analysing debt investments including assessing counterparty credit risk. Management stated a process is currently being developed, but we did not review documentation relating to that process or see evidence of this in the investment DD reports. • Providing more details on the expected costs to NZGIF of executing and administering investments. NZGIF's staff costs were $4.5 million in 2021-22 against investment income (e.g., excluding interest earnt on cash and term deposits and other revenue) of $1.4 million, raising questions of the levels of return and growth the organisation is expected to generate. • Being clearer on the returns from debt and equity investments separately (given their different risk/return profile) against agreed benchmarks. Greater emphasis

[3] For definitions of 'Close' and 'Broad' alignment, refer to Section 5.2, Table 8

[4] Identified by high level research of the Green Bank market

Item	Assessment[3]	Primary rationale
		could be placed on mark to market analysis of investments to consider their commercial value in the market relative to par and provide greater clarity of performance on an annual basis. • To increase transparency, giving consideration as to when NZGIF will adopt their portfolio level benchmark return as a performance objective and to report against it.
Crowd in private capital	Close alignment	NZGIF demonstrated, through their investment DD reports and in discussion with management, that a high degree of consideration was given to this objective. What NZGIF considered crowding in was aligned with the approach used by GIB peers and they have had several l crowd-in examples to date within their portfolio. Where an investment had not achieved crowding in, there was an identifiable plan to attract private capital in the long-term.
Show market leadership	Close alignment	We consider NZGIF have been an active market participant and have been successful in building up a presence in the New Zealand market (based on observations made by EY and external stakeholder discussions).
Governance	Close alignment	NZGIF has clear governance policies and undertakes appropriate levels of documentation of decisions. It is in a relatively early stage of its development with both commercial and public policy objectives, for which its governance is aligned to. A multitude of checks and balances are required which are developed and refined over time. Many of these checks and balances require scale to be achieved given the important of establishing segregation of responsibilities and reporting. As NZGIF matures, there may be benefits to further segregation of duties, including having a clear distinction between investment and governance duties. The Board has previously acted as the Investment Committee in respect of the decision as to whether to undertake a particular investment. We think that the Board or a Board sub-committee acting as the Investment Committee weakens some of the governance aspects that typically happen within a mature financial institution. A greater separation of the Board from investment decisions could be considered. NZGIF should explore whether greater role clarity and independence of a Risk Officer function is useful. NZGIF have advised they are in the process of building out their risk function and have a new position of "Portfolio Manager" beginning in early 2023. NZGIF have stated that many of the responsibilities of a "Risk Officer" will be vested in Portfolio Manager position.
Policies	Broad alignment	NZGIF has a comprehensive suite of policies that address many of the situations and risks that may impact the performance of the organisation (i.e. portfolio reporting and quarterly reporting). A substantial proportion of NZGIF's portfolio is structured debt products and this is expected to continue. Structured debt is a specialised product offering. When provided by a commercial bank, this product requires well developed systems to originate, structure and execute and then actively monitor over the product life cycle. We sought to understand the investment DD and approval process for debt investments and suggest that the process within NZGIF can be further improved through adopting more debt orientated processes (similar to banking processes). The way in which investment approvals, including the investment DD report and decisions, are documented makes it difficult to know whether "the hard questions are being asked and answered". We think a more debt orientated approach could enhance clarity on pricing, risk identification and mitigation. Improvements may include: • Standardising the way in which investments are presented to the Board, and ensuring the key risks, benefits and market failure is evident quickly. • Developing an internal credit risk framework and approach that reflects the credit risk frameworks adopted by the major rating agencies. • Providing more evidence on how pricing is established. • Including more precision in their investment DD reports about the reason for the "market failure" and NZGIF's involvement.
The skills and capabilities of NZGIF's Board and management	Broad alignment	We observed a sufficient mix of skills across both the Board and management. Although we are not providing an opinion of each individual's skills and capabilities, rather we have formed a view of the organisation and its Board as a whole, we: • Did not observe the levels of experience with debt (particularly single credit risk products) products we would expect given its prevalence in the portfolio and pipeline, and the specialised nature of the products NZGIF is originating. • Suggest a further discussion within NZGIF whether Board and management skills could be strengthened by enhancing direct experience in the management and/or governance of debt products, particularly in a New Zealand context.

Other findings from the Performance review

The Crown is funding $30 million of operating establishment costs via Redeemable Preference Shares (“RPS”). There is a high degree of control by NZGIF over the repayment of the RPS, and limited visibility over when this might be repaid. NZGIF is expected to report an operational deficit of $5 million for the year ended 30 June 2022, up from $4.4 million in the prior year. Management expect they will be EBITDA positive in financial year 2023, but we also note that impact of inflation on debt investments means this may not be a sufficient measure on financial performance. We also note:

- Operating costs are above levels indicated in the original Cabinet papers relating to establishment of the company, noting some of this may be the result of the increased capital base going from $100 million to $400 million.
- Income is small in relation to expenses, and it is difficult to know when that will change. Staff costs were $4.5 million in 2021-22 against investment income of $1.4 million (e.g., income excluding interest earnt on cash and term deposits and other revenue).

1.3.2 Summary of assessment from strategic review

Overall, we consider that the purpose and objectives of NZGIF remain relevant and appropriate. Since its inception, multiple climate change actions and initiatives have emerged, both globally and domestically. While a wider range of public and private sector funding and financing initiatives now exist, there is still a clear and important role for the targeted direct investment activities of NZGIF. Based on EY observations and stakeholder discussions, EY believes that NZGIF is continuing to bridge the market gap it was created to address by establishing new investment opportunities and products, and by signalling to the market, through its decisions, the strengths of climate investment opportunities.

We have recommended areas where NZGIF might consider changes to drive further future success. We have framed our analysis through three key lenses: asking about the capitalisation required by NZGIF to succeed; looking at the role of its independence; and investigating additional ways in which its work could be coordinated with the wider Public Sector. We reiterate the importance of considering many of the operational matters from the performance review, before considering those in the strategic review, particularly the recapitalisation.

These findings are set out in Table 3 below and explained in more detail within the body of the report.

Table 3: Key findings from Strategic review

Focus area	Assessment	Primary rationale
Are NZGIF’s purpose and objectives still relevant?		
Purpose and objectives	Purpose and objectives are still relevant	NZGIF is continuing to bridge the market gap it was created to address by developing new investment opportunities and products, and by signalling to the market, through its decisions, the strengths of climate investment opportunities. Even with increased action on climate change both domestically and internationally, and the arrival of more funding & financing initiatives, there is still a clear and important role for its targeted direct investment activities.

Is NZGIF set up to succeed to meet its objectives in the context of its operating environment?		
Capitalisation	Increase in NZGIF's capitalisation is required[5]	An increase in capitalisation is needed to support its ability to achieve its objectives, and to reach the scale that is needed for it to have a material role in decarbonising New Zealand. Increased capitalisation could help NZGIF scale to support additional co-investment opportunities and signal to the market its ability to continue its investments.
Independence	NZGIF should retain its independent authority to meet its mandate	Independence ensures that NZGIF is insulated from future electoral cycles, continues to provide another set of 'eyes and ears' in the market, and is able to work alongside multiple market participants. Further, we recommend that a review of the exclusions currently in place for NZGIF is carried out, with a review to remove those which are unnecessarily restrictive.
Coordination	Additional efforts should be put in place to ensure further coordination between NZGIF and other parts of the Public Sector	Coordination with the Public Sector would be particularly important as/if NZGIF increases in size over time. There are a range of different coordination mechanisms which could be explored, and these are described in the body of this report. None of these cooperation mechanisms should interfere with the independence of NZGIF as this independence is a core strength for the organisation.

1.4 Summary of recommendations

Table 4 provides an overview of the key areas where action or consideration may be required, as identified in our review. The table presents a brief description of each recommendation and the corresponding section containing further information.

Some of these recommendations overlap with each other, or could need to be developed in parallel, and this makes it challenging to provide advice about their sequencing. However, we would highlight the importance of considering many of the operational matters from the performance review before turning to those in the strategic review, particularly the recapitalisation.

Overall, the recommendations are intended to enhance NZGIF's performance, align it with leading practice amongst international green banks and ensure that NZGIF's mandate is being upheld.

Table 4: Summary of recommendations from the Performance and Strategic reviews

Category	Recommendations	Relevant report section
	Action	
Investment Counterfactuals	For transparency, include a more precise definition of the counterfactual and the reason for market failure in the investment DD reports.	5.2.1
Standardised risk ratings	Commercial banks have stringent processes to establish the risk profile of borrowers. NZGIF should adopt the use standardised risk profile scale that is relative to a well know comparator such as the risk ratings produced by Standard & Poor's or Moody's.	5.2.2 and 5.3.2
Greater level of detail into investments commerciality	Greater disclosure of market price comparables in the investment DD reports. Where such comparables are difficult to obtain, this should be stated in the investment DD reports Costs relative to investment income (e.g., excluding interest earnt on cash and term deposits and other revenue) are high. NZGIF should clearly outline the expected costs to the organisation in executing and administering the investment. Provide more clarity on the returns from both debt and equity investments against agreed benchmarks.	5.2.2 and 5.3.2
Mark to market valuations	Undertake annual mark-to-market approach for valuing/pricing investments to provide greater clarity of performance on an annual basis.	5.2.2

[5] Quantification of capital increase was out of scope for this review

Category	Recommendations	Relevant report section
Consistent investment performance measures	Adopt a consistent treatment of transactional and overhead costs across all investment DD reports and preferably be performance net of costs.	5.2.2
Performance against benchmark return	Begin disclosing NZGIF's performance against the benchmark return and, if not being met, clearly state the timeframe in which they expect to achieve the benchmark return. Gaps to this performance measure should also be disclosed and the reasons for it discussed	5.2.2
Rationale for investments in multiple parts of the capital stack	Where NZGIF is investing in multiple parts of the capital stack and/or different types of capital, NZGIF should clearly articulate the rationale in investment DD reports and an appropriate risk assessment/justification provided.	5.2.3
Disclosure of "market failure" rationale	Disclose detailed "market failure" rationale in case studies published to demonstrate market leadership	5.2.4
Risk function and "Risk Officer"	The function of "Risk" is not currently contained within a single role but rather is part of the portfolio of responsibility held by the Chief Operating Officer. Establish the position of "Risk Officer" to strengthen governance with reporting directly to the CEO or the Board of Directors.	5.3.1
Standardised DD reports	The way in which information is presented is closer to an investment memorandum that an investment bank would prepare to sell a transaction externally. We recommend developing a standardised "front sheet" for DD reports to clearly present key information. Importantly, the front sheet would highlight the internal risk rating that reflects the credit risk frameworks adopted by the major rating agencies.	5.3.2
Documenting decisions	The way in which investment approvals, including the investment DD report and decisions, are documented makes it difficult to know whether "the hard questions are being asked and answered". A more transparent approach to documenting the decisioning is suggested, possibly through an investment committee question and answer framework with documented minutes.	5.3.2
Increasing capitalisation	Consider an increase in NZGIF's capitalisation in order to continue to achieve its objectives and play a substantial role in decarbonising New Zealand.	6.1
Retain independence	Retain NZGIF's independence, as having the independent authority to meet its mandate is a key strength of NZGIF's operating model.	6.2
Coordination mechanisms	Investigate coordination mechanisms for NZGIF. Our analysis suggests that if/as NZGIF receives an increase in capital, coordination with other government activities will become increasingly important.	6.3
	Consider	
Emissions Estimation Methodology	Consider extending the Emissions Benefit Report to include all required assumptions to calculate the estimation for each investment.	5.2.1
Emissions Estimation Methodology	Consider publishing the rationale behind any notable differences in the emissions estimation methodology from approaches adopted by the Green Bank Network to improve transparency.	5.2.1
Understanding commercial performance based on FTE	Consider identifying how much time in each role is spent on Government policy and reporting, to assist NZGIF in better understanding their underlying commercial performance.	5.2.2
Establishment of benchmark	To allow more transparent reporting against this objective, NZGIF could consider outlining how the portfolio level benchmark return was established and the differing return expectations between equity and debt.	5.2.2
Estimation of average rate of return on equity investments	Consider making best estimation of likely exit date for equity investments and likely average rate of return at the time of exit in assessing the total expected rate of return.	5.2.2
Debt returns reference point	Consider disclosing debt returns with reference to a net interest margin rather than the absolute return.	5.2.2
Performance hurdles	If the Government agrees that NZGIF is more aligned with an investment bank, as opposed to a fund, then then investment banking performance hurdles could be considered, such as a greater	5.2.2

Category	Recommendations	Relevant report section
	focus on capital leverage through origination and sell down, revenue per employee and/or an efficiency ratio (revenue/expenses) and net profit.	
Failure to meet crowding-in objectives	Within banks, clear expectations are set for crowding in objectives of each investment and where there is a failure to meet these, a process for escalation within the organisation should be considered – including to the Board of Directors.	5.2.3
Segregation of duties	The Board or a Board sub-committee acting as the Investment Committee weakens some of the governance aspects that typically happen within a financial institution. Consider a greater separation of the Board from investment decisions as it matures and establish a separate risk function.	5.3.1
Regular shareholder monitoring	The Board acting in an investment decision-making role (either directly or through sub-committee) increases the importance of regular shareholder monitoring. NZGIF and the Treasury should consider implementing quarterly analysis by The Treasury of financial performance as we consider this an important check and balance on the activities of NZGIF.	5.3.1
Detailed reporting of Board and Management	Consider outlining the Board and Management's responsibilities and skillset in more detail in their annual reporting for increased transparency to stakeholders.	5.4
Debt expertise	Consider strengthening the organisations debt expertise, through the appointment of persons experienced in direct, single credit, lending either at an origination and/or governance level, particularly in a New Zealand context.	5.4
Reducing number of specific restrictions	Cabinet and Treasury should consider reducing the number of specific restrictions that are placed on NZGIF and to rely more heavily on NZGIF's objectives as the guardrails for NZGIF outcomes.	6.2

2. Background and approach

The New Zealand Green Investment Finance ('NZGIF') is New Zealand's green investment bank, established in 2019. As a Green Investment Bank (GIB), NZGIF's role is to accelerate private investment into domestic projects focused on decarbonising Aotearoa New Zealand. NZGIF's mandate constitutes a purpose and a set of four key objectives. NZGIF's purpose is to "accelerate investment to reduce greenhouse gas emissions in New Zealand".

NZGIF's objectives are to:

- Make investments that lower domestic emissions
- Make investments on a commercial basis
- Crowd-in private capital, and
- Undertake a market leadership and demonstration role.

The key exclusions from NZGIF's mandate[6] are:

- Large-scale renewable electricity generation
- Forestry interventions
- State sector investment
- Carbon capture and storage.

Cabinet has mandated a review of NZGIF every five years, with a focus on reviewing its role in delivering a low emissions economy by 2050. EY has been engaged to support The Treasury - Te Tai Ōhanga ("The Treasury") with an independent periodic review of NZGIF, particularly through a:

1. Performance review to assess NZGIF's effectiveness in fulfilling its purpose and objective; and
2. Strategic review to assess whether NZGIF's purpose and objectives are relevant and setting the organisation up for success.

2.1 Approach

The review of NZGIF was conducted through 3 key phases:

a. Phase 1: Information gathering: Phase 1 was focused on information gathering for both sections of the review, to support EY to develop a detailed approach to Phase 2 "Assessment", that is fit for purpose and is aligned with the findings from Phase 1. The assessment approaches were presented to and discussed with Treasury.

b. Phase 2: Assessment: Phase 2 consisted of conducting the assessment of NZGIF, as designed as part of Phase 1. The Performance review and the Strategic review assessment approaches are outlined in Figure 3 and Figure 4 respectively.

c. Phase 3: Analysis and report writing: In Phase 3, EY condensed the findings of its assessment into the report and conducted an overall analysis to ensure consistency throughout both the Performance review and Strategic review.

Appendix A details the stakeholder engaged throughout this review.

[6] Cabinet paper DEV-18-SUB-0257: Establishing New Zealand Green Investment Finance Limited (treasury.govt.nz)

Four Components of the Performance Assessment

- Assessment of NZGIF's performance in delivering against its mandated objectives and purpose to accelerate and facilitate investment in New Zealand's low carbon future
- Assessment of the effectiveness of NZGIF's strategy, objective, policies and performance indicators to deliver on its purpose and objectives
- Assessment of the skills and capabilities of NZGIF's Board and management given its purpose, institutional form and the current market environment
- Assessment of the processes and systems that NZGIF utilises to meet its objectives and to identify and manage risks, within its mandated risk appetite

The Performance Assessment approach is based on:

1. Whether NZGIF was assessed as in close alignment, broad alignment, or no/little alignment to leading practice under the stated review question
2. What steps may be undertaken to improve NZGIF's assessment against the stated criteria

Figure 3: Overview of performance assessment approach.

Two Phases of the Strategic Assessment

Phase 1

Assessed the policy and finance context prior to and at NZGIF's formation.

Baseline findings supported the Phase 2 assessment.

Phase 2

Assessment of the changes in the policy and finance context since NZGIF's formation.

Advice about the future purpose, objectives and activities of NZGIF.

Assessment approach in Phase 2 was based on 3 key focus areas:

1. Capitalisation
2. Coordination
3. Independence

Figure 4: Overview of strategic assessment approach.

3. NZGIF context

3.1 NZGIF at inception

In 2017, the Government agreed to support the introduction of NZGIF, an investment bank focussed on low emissions opportunities. NZGIF's role was to fill a gap in the market by helping catalyse the redirection of capital to investments consistent with the transition to a low emission economy.

NZGIF continues to be part of a suite of domestic climate change policy interventions. At inception, this policy programme included New Zealand's international climate change leadership, the Zero Carbon Bill, the strengthening of the New Zealand Emissions ETS, the One Billion Trees Programme and the Electric Vehicles (EV) Programme. NZGIF's investments were intended to be complementary to the wider climate change and energy efficiency policy programme that existed at the time[7].

NZGIF's mandate and objectives at inception:

NZGIF's mandate is to accelerate domestic, low emissions investment. To achieve that mandate, NZGIF has operated with four unweighted objectives since inception[8]:

- Make investments with lower domestic emissions
- Crowd-in private finance
- Make investments on a commercial basis
- Undertake a market leadership and demonstration role.

The unweighted nature of the objectives allows NZGIF to respond flexibly to changing demands and opportunities in the market.

In addition to the four objectives, four exclusions were added to NZGIF's mandate:

Sector Exclusion	Rationale for exclusion, as cited to Cabinet in 2018
Large scale electricity generation	Where there is no evidence of financing gaps
Forestry	Given this is covered by the One Billion Trees program
Carbon Capture & Storage	Given existing legislation is not adequate to manage risks of CCS, this is not viable in New Zealand
The State Sector	Given government already funds these entities adequately

Schedule 4A Company:

NZGIF was established as a Schedule 4A company. This means that NZGIF is owned by the Crown through two Shareholding Ministers. However, NZGIF operates at an arms-length from the Government and makes independent investment decisions. Shareholding Ministers provide direction on sectors NZGIF could invest in but have no say over individual investment outcomes.

7 CERF investments.pdf (beehive.govt.nz)

8 Cabinet paper DEV-18-SUB-0257: Establishing New Zealand Green Investment Finance Limited (treasury.govt.nz)

Performance measurement and reporting:

To ensure transparent reporting to government and shareholding ministers, and in line with Schedule 4A requirements, NZGIF was formed with the understanding that it would provide shareholding ministers with a biennial Statement of Intent (SoI) and an annual Statement of Performance Expectations (SPE).

Capitalisation

Budget 2018 determined that NZGIF would receive a capital injection of $100m at inception. It also provided $1m in 2017/18 for the costs of Treasury policy work to establish NZGIF, and $4m in 2018/19, as well as $30m over 6 years for its operational costs. In Budget 2021, NZGIF was recapitalised with an additional $300m.

3.2 NZGIF's investments since inception

Figure 5 provides a summary of NZGIF's capital allocation and key stages of NZGIF's current investment pipeline as at the finalisation of this report.

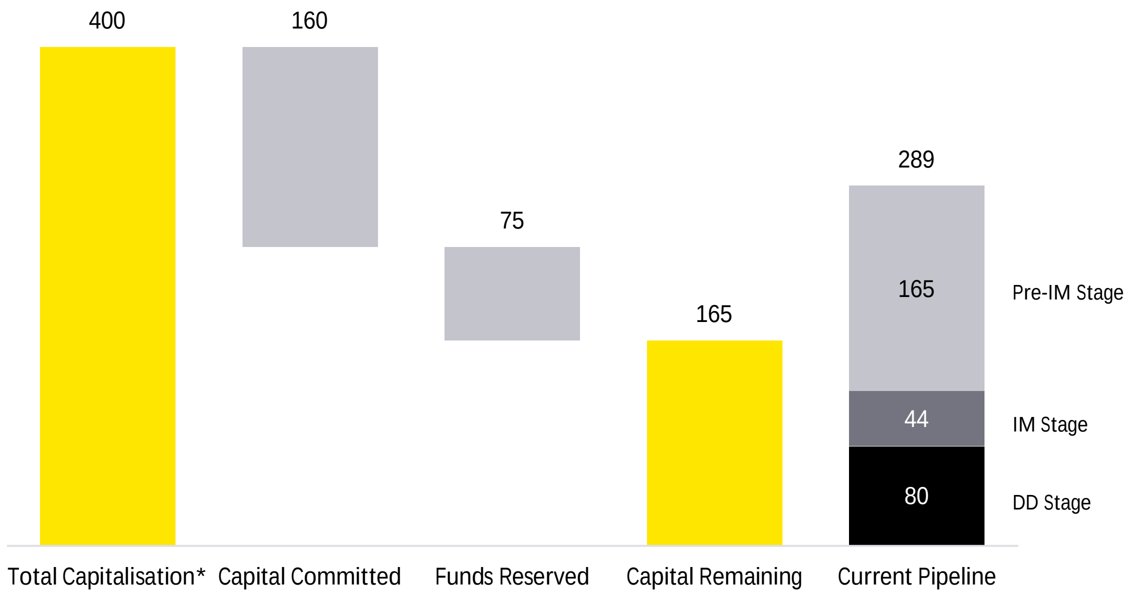


Figure 5: Summary of NZGIF's capital allocation, as well as key stages of NZGIF's current investment pipeline, as described by NZGIF. Capital committed is defined as capital that has been contractually committed; Funds reserves are debt and equity capital that has been conditionally committed and expected to be contractually committed in the future. IM is defined as investment memorandums and DD as due diligence. All values are in $m

Figure 6 provides an overview of NZGIF's investments since its inception[9].

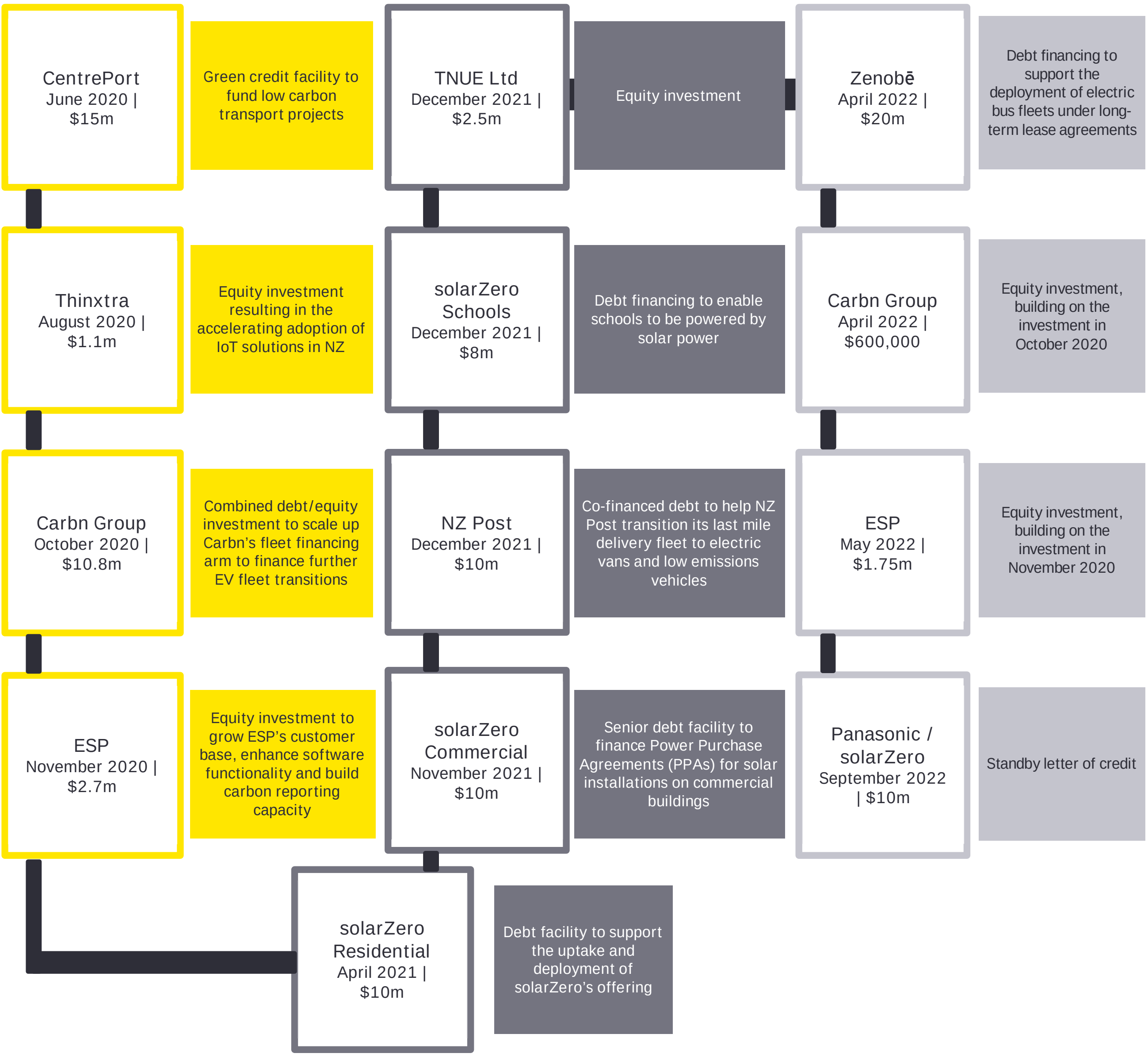


Figure 6: NZGIF's investments since inception

9 Our investments :: NZ Green Investment Finance (nzgif.co.nz)

4. Peer comparison

We have undertaken research on several GIB peers overseas to understand their investment aims, sector exposure and how soon after establishment they reached profitability. This research provides an understanding of the investment opportunities present in other geographies and GIB peers' investment focus / different mandates and how this might impact profitability.

This section provides an overview of key information on the GIBs assessed as part of this review. The majority of GIB peers were created prior to NZGIF's inception, are more mature in their lifecycle and have a strong focus on accelerating the deployment of clean energy.

Table 5 to Table 8 provide an overview of the GIBs we used as comparisons for NZGIF.

Table 5: Clean Energy Finance Corporation

Name of GIB:	Clean Energy Finance Corporation (CEFC)
Location:	Australia
Total capitalisation to date (NZD equiv.):	19.6b[10]
Current total Assets (NZD $m equiv.)	7,045[11]
Description	
The CEFC is an Australian government owned green finance entity, with a particular focus on clean energy.[12] Similar to NZGIF, CEFC invests to address market failures and aims to accelerate private investment with green impact through co-investments. However, CEFC's green impact focus is primarily placed on clean/renewable energy sector which NZGIF is prohibited from investing in. CEFC's significantly larger asset value sets it apart from other comparable entities and NZGIF, illustrating CEFC's successful deployment of capital in large scale green investments since its inception in 2012. The CEFC invest on a commercial basis but also provide limited concessional loans.	
Mandate	
Mandate at inception:[13] • Catalyse and leverage an increased flow of funds for the commercialisation and deployment of Australian based renewable energy, energy efficiency and low-emissions technologies. • Supplement existing clean energy initiatives, such as the carbon price, the Renewable Energy Target and grant funding from the Australian Renewable Energy Agency. • Adopt a commercially rigorous approach to investment activities and risk management practices. The CEFC has received several updates to their investment mandate. These mandates are issued by the Australian Government.[14] In 2018, the Government directed the CEFC to support the development of a market for firming intermittent sources of renewable energy and to prioritise investments that support more reliable, 24/7 power. In addition, to support increased reliability and security of electricity supplies.[15] The Australian Government has also tasked the CEFC with investing through a $1 billion Sustainable Cities Investment Program; a $1 billion Reef Funding Program; and the $200 million Clean Energy Innovation Fund. Finance for these programs is drawn from the CEFC's existing $10 billion allocation, with investments made in accordance with usual CEFC investment practice.[16] The most recent investment mandate direction was issued in 2020.[17] The direction includes making $200m available for debt and equity investment in emerging clean energy technology projects and businesses that involve technologies that have passed beyond the research and development stages but are not yet established or of sufficient maturity, size or otherwise commercially ready to attract sufficient private sector investment.	
Development	
Initially provided with AU$10b of government capital. Further investment is supported through the returns from initial investment capital. The CEFC have been allocated a further AU$8.6b from the Federal Budget to help deliver the 'Rewiring the Nation' programme.[18]	

[10] Converted to NZD on 16 December 2022.
[11] Sourced from latest published annual reports, converted to NZD as of 21 November 2022 https://www.cefc.com.au/media/fq2prayo/cefc-annual-report-2021-22.pdf
[12] https://www.cefc.com.au/who-we-are/about-us/mission-and-values/
[13] As per the Australian Treasury: https://treasury.gov.au/publication/portfolio-budget-statements-2013-14/portfolio-budget-statements-2013-14/clean-energy-finance-corporation
[14] https://www.legislation.gov.au/Details/F2020L00552
[15] https://www.financeminister.gov.au/media-release/2018/12/14/clean-energy-finance-corporation-investment-mandate
[16] https://www.legislation.gov.au/Details/F2020L00552
[17] Clean Energy Finance Corporation Investment Mandate Direction 2020: https://www.legislation.gov.au/Details/F2020L00552

Table 6: Green Investment Group

Name of GIB:	Green Investment Group (GIG)
Location:	United Kingdom
Total capitalisation to date (NZD equiv.):	5.75b[19]
Current total assets (NZD $m equiv.)	N/A[20]
Description	
Initially launched by the UK government in 2012 designed to mobilise private finance into the green energy sector. In April 2022 GIG was privatised and now operates within Macquarie Asset Management.[21] We were unable to obtain historical financial information post privatisation.	
Mandate	
Mandate is to accelerate the UK's transition to a greener, stronger economy.[22] Target sectors: • Offshore wind • Small-scale renewables • Energy efficiency (residential and commercial) • Waste and bioenergy The GIG particularly focused on broader environmental objectives: • GHG emissions reduction • Efficient use of natural resources, • Protection and enhancement of the natural environment, • Protection and enhancement of biodiversity, and • Promotion of environmental sustainability.	
Development	
Initially funded with £3 billion of UK Government money, with the intention to mobilise additional private capital. The GIG was sold to a private entity in 2017. The UK Government stated that the sale of the GIG into the private sector would free it from the constraints of public sector ownership allowing it to increase investment in the UK's green infrastructure.[23]	

[19] Converted to NZD on 16 December 2022. This number is capitalisation prior to privatisation.
[20] We were unable to obtain historical financial information post privatisation.
[21] https://www.gov.uk/government/organisations/uk-green-investment-bank
[22] Coffey & Sapere, *New Zealand Green Investment Finance: Prepared for The Treasury*.
[23] https://www.gov.uk/government/news/uk-governments-sale-of-green-investment-bank-completed

Table 7: NY Green Bank

Name of GIB:	NY Green Bank (NYGB)
Location:	New York, United States
Total capitalisation to date (NZD equiv.):	1.58b[24]
Current total assets (NZD $m equiv)	1,634[25]
Description	
NYGB is a division of the New York State Energy Research and Development Authority. It focusses on addressing gaps and barriers in clean energy capital markets and mobilising private capital.[26] The main focus of NYGB is on mobilising private capital, and this is evident in the extensive performance targets and reporting on crowd-in capital metrics compared to other commercial objectives.	
Mandate	
Mandate is to accelerate clean energy deployment in New York State by working in collaboration with the private sector to transform financing markets.[27] Target sectors: • Renewable energy • Energy efficiency • Offshore wind • Electric vehicles • Fuel cells	
Development	
The initial capital of $218.5m was deployed in December 2013. This capital which was authorised to be provided in part from ratepayer funds and partly from the state's Regional Greenhouse Gas Initiative (RGGI) funds. In July 2015, the Commission authorized a further $150 million of capital from ratepayer fund for administration, cost recovery, and evaluation. In 2016, NYGB received an extra $631.5, reaching a total of $1 billion of capitalisation over its lifetime.[28]	

Table 8: Connecticut Green Bank

Name of GIB:	Connecticut Green Bank (CTG)[29]
Location:	Connecticut, United States
Total capitalisation to date (NZD equiv.):	N/A
Current total assets (NZD $m equiv)[30]	453
Description	
Established in 2011, CTG takes a government subsidy-driven approach to clean energy by working with private sector investors to create low-cost, long-term sustainable financing to maximise the use of public funds.[31] Whilst CTG does not have an asset base as large as CEFC or NYGB, its asset base is comparable to NZGIF's.	
Mandate	
Mandate is to support the Governor's and Legislature's energy strategy to achieve cleaner, cheaper and more reliable sources of energy while creating jobs and supporting local economic development. Target sectors: • Energy efficiency • Renewable energy (technology agnostic) • Other clean tech, including residential-focused options	
Development	
CTG did not have an initial investment capital. This is because it has ongoing annual sources of revenue that it uses as investment capital, rather than a significant initial capital injection.	

[24] Converted to NZD on 16 December 2022.
[25] Sourced from latest published annual reports, converted to NZD as of 21 November 2022 https://greenbank.ny.gov/Resources/Public-Filings, Audited Financial Statement 2022
[26] https://greenbank.ny.gov/About/About
[27] Coffey & Sapere, *New Zealand Green Investment Finance: Prepared for The Treasury*.
[28] Coffey & Sapere, *New Zealand Green Investment Finance: Prepared for The Treasury*.
[29] Coffey & Sapere, *New Zealand Green Investment Finance: Prepared for The Treasury*.
[30] Sourced from latest published annual reports, converted to NZD as of 21 November 2022 https://www.ctgreenbank.com/wp-content/uploads/2022/10/Connecticut-Green-Bank-FY22-ACFR-FINAL-2022.10.21.pdf, Audited Financial Statement 2022
[31] https://www.ctgreenbank.com/about-us/

Figure 7 illustrates NZGIF's investment debt and equity investment split against two GIB peers at similar points of maturity (3-4 years from inception). Although NZGIF has a higher concentration of debt, they are aligned with CEFC at similar points of maturity, while GIG's mix reflects the fact that investment in third-party funds was a focus, and something that NZGIF has not done, nor is focussed on.

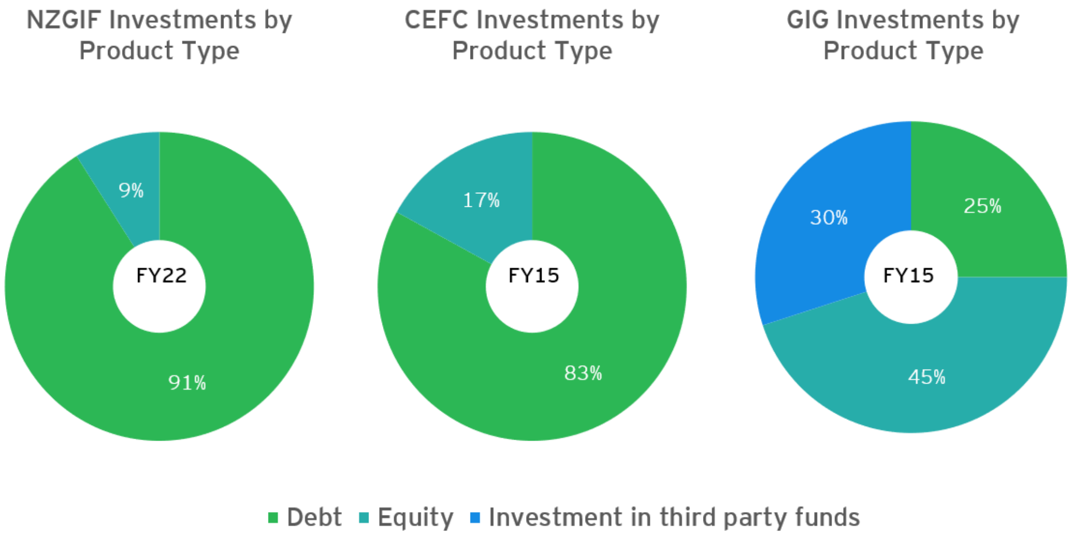


Figure 7: Investment by product type

Figure 8 outlines the varying sector exposures of NZGIF and the two GIB peers. The differences reflect the emissions profile of each country and target sectors in each market. Both Australia and UK focus on reducing emissions from electricity, while New Zealand's focus sectors are transport and agriculture.

In comparison to CEFC and other peer GIBs, NZGIF's portfolio is less diversified. This is in line with expectations given its mandated investment exclusions that limit investments into sectors with more established and liquid capital markets. It is also likely that the larger international funds will have the administrative capacity to develop and maintain more diversified investment portfolios. We note that there is limited historical information available on the GIB peers' investment type and sector exposure to the level of NZGIF's disclosures. We were able to obtain the quantifiable information for both CEFC and GIG at similar maturity point for where NZGIF is currently.

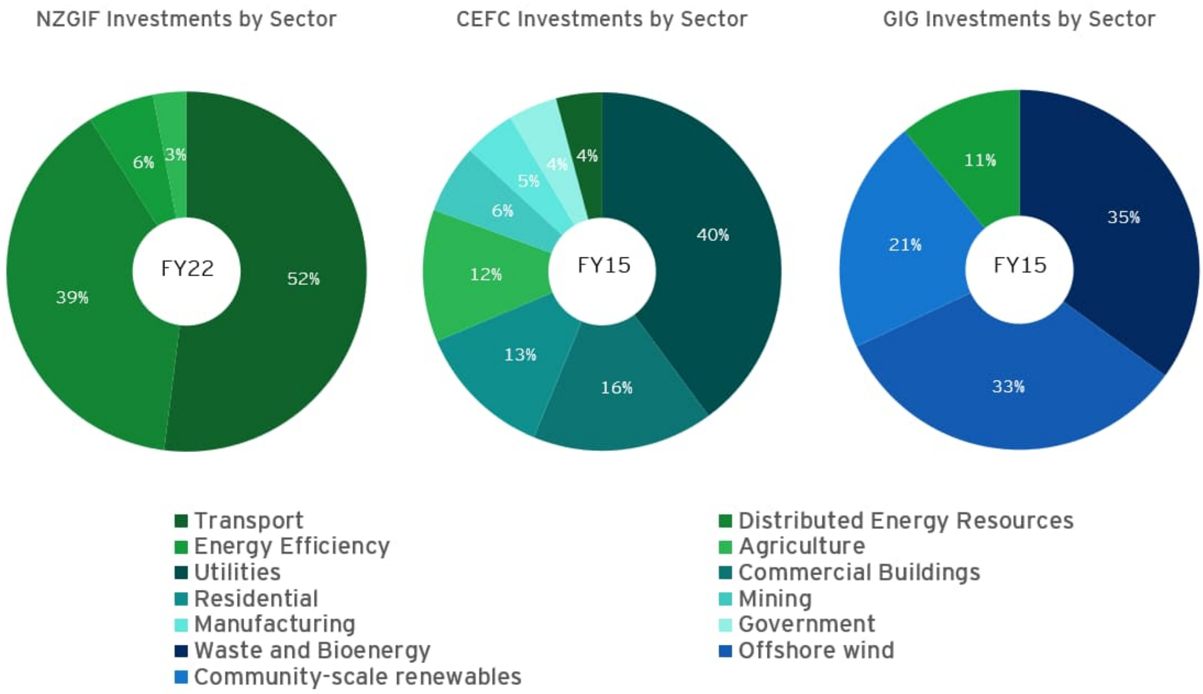


Figure 8: Investments by sector

5. Performance review

We were provided with access to information and management throughout our review. A review of this nature can be high level only given, amongst other factors, the limited timeframe over which the review was conducted and the complexity of some of the investments. We have relied upon the information provided to us by NZGIF, as well as various reports from other sources and discussions with management and the NZGIF Chairperson.

5.1 Defining “leading practice”

A key component of the performance review is determining what is considered “leading practice” when assessing performance of an organisation such as NZGIF. NZGIF’s broad mandate, consisting of a mix of public policy and commercial objectives, and limitations on what they can invest in, means they are a relatively unique investment organisation both domestically and globally. We approached the benchmarking by considering their dual public policy / commercial mandate as outlined below.

Public policy objectives

When assessing NZGIF against public policy objectives, we have:

- Used GIB peers as benchmarks, focusing on the Green Bank Network and those with similar objectives to NZGIF (‘double bottom-line’ of deploying capital to achieve lower emissions impact whilst generating positive portfolio returns[32]). Refer to the peer comparison in section 4 of this report which includes the peers we performed desktop research on. Note this is not an exhaustive list of GIBs and is based on research and discussions with Treasury and NZGIF.
- Considered how publicly owned organisations are expected to report against performance measures – e.g., standardisation, specificity, clarity, and consistency.

Commercial objectives

Private sector financial institutions measure their performance against well-established financial metrics such as profitability, net interest margin, return on equity and growth in portfolio value/share price over time. Benchmarks tend to be different for debt investment and equity investment. NZGIF’s public policy objectives and alignment to solving market failure instances inhibit the ability of the organisation to align its commercial performance directly with some of these other financial institutions, including those which NZGIF has compared itself to. However, their main commercial objective, “to invest on a commercial basis” is a principle that when leading practice investing disciplines are followed, can be achieved at non-Government owned financial institutions and NZGIF alike.

NZGIF has a high concentration of debt investment which is expected to continue in the near-term. For NZGIF’s debt investments, our primary consideration is assessment against leading practice at commercial banks, whose core focus is to structure, price and manage risk on debt products. For NZGIF’s equity investments, the comparison is better aligned to private equity funds which take equity positions in companies typically on some form of portfolio basis based on particular investment “convictions” and seek to grow value over time. Our assessment draws on our teams’ experience of working in these markets.

5.2 Our assessment of NZGIF’s performance against its objectives

We have assessed NZGIF’s performance against the four objectives using the measurement criteria outlined in Table 9, which we established in consultation with The Treasury during the review process. Our suggestions and recommendations take into account NZGIF’s maturity, which includes

[32] Treasury Report, Green Investment Fund: Insights from International Institutions

both their time since inception and scale. What were considered matters relevant to leading practice and key measures for each of the objectives are outlined in Section 5.1.

Table 9: NZGIF Objectives - Measurement criteria

Definition	Measurement Criteria
Close alignment	Closely aligns with leading practice. High levels of evidence across the portfolio, subject to comments that are relatively low risk or minor in nature.
Broad alignment	Broad alignment to leading practice. Partial evidence across the portfolio with more extensive comments and those that are higher risk or more substantial in nature.
No/little alignment	No evidence of alignment to leading practice across the portfolio.

We also reviewed NZGIF's draft Statement of Service Performance (SSP), which will be contained within their annual report for 2021-22 (NZGIF's final Annual Report for 2021-22 was not published at the time of conducting our review). The SSP details NZGIF's performance against the four objectives as stated in the Statement of Performance Expectations (SPE) for 2021-22.

In the draft SSP it states that "All relevant performance targets and milestones were met by NZGIF". A summary of each objective is outlined in Appendix C.

5.2.1 Invest to reduce emissions

Matters relevant to leading practice	Key Measures
▶ Is their approach to this objective consistent with other GIB peers and are the measurement methodologies clear and consistent? ▶ Does the investment DD report clearly detail the emissions reduction? ▶ At a portfolio level, what are the levels of disclosure and standardisation of reporting?	▶ Quantitative measurement and reporting of emissions reduction ▶ Consistency of measurement over time ▶ Transparency of calculation ▶ The counterfactual is explained

Assessment	Close alignment - We consider NZGIF's approach closely aligns with leading practice. Our comments address low risk / minor findings.

Review of NZGIF's self-assessed performance

NZGIF met their 2021/22 targets.

Although leading practice alignment remains, measures have been amended or removed in the SPE for 2022-23[33]. NZGIF should consider providing further justification on the reason for removal / amendment of measures in the SPE for transparency.

Assessment Rationale

All GIB peers reviewed operate toward emission reduction objectives and NZGIF's approach to calculating emissions reduction is consistent. Similarly, NZGIF has a lifetime GHG emissions performance benchmark, consistent with GIB peers, although several GIB peers also report yearly GHG emissions for their investments.

Each investment made by NZGIF satisfies this criterion, which is clearly outlined in the investment DD reports reviewed.

[33] NZGIF-Statement-of-Performance-Expectations-2022-2023.pdf

NZGIF demonstrate a sufficient level of disclosure. An Emissions Benefit Report[34] was published, that estimates the decarbonisation impact of each investment to 30 June 2022. We understand this will be published annually and is a positive approach to further demonstrate the emissions impact of NZGIFs investments.

Alignment to leading practice

NZGIF commissioned an independent review (conducted by KPMG) of their GHG calculation methodology, which noted the following:

- NZGIF's principles adapted are generally in line with the five principles of the GHG Protocol corporate standard and includes a number of other principles observed in the Avoided Emissions Framework (AEF) and the Emerging Climate Technology Framework (ECTF).
- The majority of emissions factors applied in GHG estimation by NZGIF are sourced from the New Zealand Ministry for the Environment, aligned with the leading practice of applying emission factors published by trusted entities.

Based on discussions with management, NZGIF notes that green covenants are included in their loan documentation, requiring that the use of proceeds deliver on both their own carbon reduction goals, and where suitable against "green loan" certifying agencies criteria (e.g. Climate Bond International). NZGIF also noted that their investment agreements incorporate The Chancery Lane Project clauses that seek to ensure positive climate outcomes are considered and achieved throughout the performance of the investment.

Notable leading practice measures we observed at NZGIF which are consistent with other GIB peers included:

- In alignment with leading practice, NZGIF includes a use of proceeds clause in their loan agreements to ensure delivery on their low carbon goals.
- GIG is also notable for the disclosure of its green impact calculation methodology and reporting. GIG publishes a "Green Investment Handbook" as well as investment policies and reporting criteria that provides transparency of their methodology used to assess, monitor, and report on green impacts from their investments. NZGIF discloses their methodology for estimating the lifetime estimation benefits in the Emissions Benefit Report published on their website, and note it broadly follows the methodology of the CEFC.

Other observations and suggested improvements:

- Care should be taken to ensure the chosen counterfactual is sufficiently challenging. In areas where technology and/or funding markets are rapidly changing, such as the uptake of EV's, measurement against fossil fuel-based alternatives over the entire life of the financing may be overstating the extent of carbon reduction due to involvement by NZGIF. We recommend including a more precise definition of the counterfactual and the reason for market failure in the investment DD reports.
- NZGIF's Emissions Benefit Report for the period 2021-22 provides a sufficient level of disclosure and overview of the emissions estimation methodology used, however, it does not include every assumption needed to calculate the estimation for each investment. We understand from NZGIF that this is due to the commercially sensitive nature of information to the counterparty, however, to fully demonstrate the benefit an approach that improves transparency could be considered to better demonstrate the benefit.
- NZGIF state in their Emissions Benefit Report that their methodology is based on the approach taken by the Green Bank Network but does not explain the deviations. We recommend NZGIF consider publishing the rationale behind any notable differences in methodology to improve transparency.

[34] https://nzgif.co.nz/assets/Files/NZGIF-Emissions-Benefit-Report-2021-22-Final.pdf

5.2.2 Invest on a commercial basis

Matters relevant to leading practice	Key Measures
▶ Is their approach to this objective consistent with other GIB peers and are the measurement methodologies clear and consistent? ▶ Does the investment DD report clearly outline the rationale for how the investment has been structured and priced / valued on a commercial basis? Are benchmarks provided in the investment DD report to justify this decision? ▶ Does the investment clearly demonstrate its profitability to NZGIF? ▶ Are transaction costs incurred aligned with the scale of the investment?	▶ Investment Structuring and Pricing ▶ Debt margin with clear comparators based on risks, security, terms, and conditions. ▶ Equity pricing with reference to comparable companies / transactions. ▶ Investment profitability ▶ Understanding of the expected income and costs, including administering the investment over its life.

Assessment	Broad alignment - We consider NZGIF's approach has broad alignment with leading practice. Our comments are more substantial in nature, being matters that should be discussed between NZGIF, its Board and potentially shareholders.

Review of NZGIF's self-assessed performance

NZGIF states that they met this objective. However, we note that NZGIF reports on its invested debt only, which achieved a weighted average interest rate of 5.89% in 2021/22. This rate excludes the returns from term deposits and NZGIF's equity investments, the latter given realised performance will not be known until the investments are exited.

NZGIF state that their portfolio level benchmark return, of 2% over the 5-year Government bond-rate, is a long-term target, rather than a target for a one-year period.

Assessment Rationale

We identified several processes which could improve the alignment with leading practice:

- A greater level of detail into how pricing / valuations were established in the investment DD reports.
- As it relates to debt investment a standardised approach to assessing counterparty credit risk, noting NZGIF has advised a policy/process is underway regarding this.
- More details on the expected costs to NZGIF in executing and administering the investment.
- Greater clarity on the returns from both debt and equity investments against agreed benchmarks.
- Adopt an annual mark-to-market approach for valuing/pricing investments. This would enable the reporting of performance against the portfolio level benchmark returns for both debt and equity and allow more frequent consideration for capital recycling opportunities.

Alignment to leading practice

Financial institutions are typically measured on their commercial performance against some well-defined benchmarks – comparable markets / companies, profitability and return on equity/assets. Although NZGIFs intentions around commercial pricing of risk are consistent with leading practice, there may be some aspects of practical application that could benefit from refinement, including:

- Begin disclosing NZGIF's performance against the benchmark return and, if not being met, clearly state the date on which they expect to achieve the benchmark return. Gaps to this performance measure should be disclosed and the reasons for it discussed, as is common from listed commercial banks and other publicly owned financial institutions, such as The Guardians of New Zealand Superannuation.

- Although the Treasury set NZGIF's portfolio benchmark return, to allow more transparent reporting against this objective NZGIF could outline how the portfolio level benchmark return of 2% over the 5-year government bond rate was established and the differing return expectations between equity and debt.

Commercial banks have stringent processes to establish the risk profile, and pricing, of the borrower. The investment DD reports reviewed did not have the level of detail or a standardised approach consistent with that of commercial banks. To better align with leading practice NZGIF could consider:

- The use of a standardised risk profile scale that is relative to a well know comparator such as the risk ratings produced by Standard & Poor's or Moody's. Management stated a process has been developed, but we did not see evidence of this in the investment DD reports.
- We recommend including greater disclosure of market price comparables in the investment DD reports. Where such comparables are difficult to obtain, this should be stated in the investment DD reports.

CEFC makes its best estimation as to the likely exit date for the equity investments through a liquidity event of some form and best estimates the likely average rate of return at that time. This enables timely reporting of total expected rate of return for a given equity investment. This is in contrast with NZGIF's approach of reporting only realised returns. It would be useful for NZGIF to consider this approach in assessing the total expected rate of return for their equity investments.

Other observations and suggested improvements

Suggested improvements include:

- Greater emphasis could be placed on mark to market analysis of investments to consider their commercial value in the market relative to par and provide greater clarity of performance on an annual basis. Although this may, as NZGIF notes, be difficult for certain investments, this approach would align with NZGIF "investment banking" approach and crowd in capital objective, which implies that more frequent recycling of capital than a commercial bank.
- NZGIF has a relatively large number of employees in relation to the capital base and revenue. Staff costs were $4.5 million in 2021-22 against investment income (e.g., excluding interest earnt on cash and term deposits and other revenue) of $1.4 million. While we acknowledge the organisation is still maturing and the mixture of commercial and government policy objectives, it does raise questions of the levels of return and growth the organisation is expected to generate. We recommend NZGIF to identify how much time in each role is spent on Government policy and reporting, to assist NZGIF in better understanding their underlying commercial performance, and in their reporting of performance, and help justify the staff costs to comply with their policy obligations to their shareholders.
- To increase transparency, NZGIF should consider disclosing debt returns with reference to a net interest margin rather than the absolute return. As a starting point, the cost of funds to NZGIF for debt investments could be the Government's 5-year bond rate.
- Some investment DD reports discussed investment performance net of transactional and overhead costs, whereas other investment DD reports implied this was before costs. We recommend a consistent approach should be adopted and preferably be performance net of costs.
- NZGIF does not consider itself to be a "fund" but rather more in line with an investment bank, whereas the portfolio level benchmark return is more closely aligned to how a fund would report performance. If this aligns with the Government view, then investment banking performance hurdles could be considered, such as a greater focus on capital leverage through origination and sell down, revenue per employee and/or an efficiency ratio (revenue/expenses) and net profit. Where expenses are included in the calculations, government policy related

costs could be excluded to give a clearer overview of the organisations underlying commercial performance.

5.2.3 Crowd in private capital

Matters relevant to Leading practice	Key Measures
▶ Is the objective consistent with GIB peers? ▶ Is there a clear description of the crowd-in objectives in the investment DD report? ▶ Has the investment been successful in achieving crowd-in private capital? ▶ Is the definition of crowding in aligned to GIB peers? Are the methodologies reported in a clear and consistent manner?	▶ Quantitative measure of crowding in (Leverage ratio). ▶ Consistency of measurement over time. ▶ Regular reporting of whether crowding in has been achieved and/or undertakings delivered. ▶ How crowding in has been structured – whether pari-passu or not, and if not the reasons for this.

Assessment	Closely aligns We consider NZGIF's approach closely aligns with leading practice. Our comments address low risk / minor findings.

Review of NZGIF's self-assessed performance

NZGIF assessed themselves as not meeting the Crowd in private capital objective of the "Ratio of overall investment to NZGIF investment on a portfolio basis" being greater that the 2020-21 baseline. The actual result was 2.1:1 vs. a prior year baseline of 2.3:1[35].

Multiple measures / targets have been amended or removed in the SPE for 2022-23, with no justification provided. Although NZGIF's SPE is fully compliant with the Crown Entities Act and the justification of changes to measures year on year was discussed at length with the Office of the Auditor General, their Board and auditor, more clarity could be provided to improve transparency in assessing performance. Refer to Appendix B where amendments and removals of targets have been noted.

Assessment Rationale

Despite missing their own target ratio, based on NZGIF's intent and approach we have assessed NZGIF as closely aligning to this objective as:

- NZGIF demonstrated, thorough both their investment DD reports and in discussions with management, that a high focus was given to this objective.
- We viewed NZGIF's overall approach to this objective positively as crowding in of private capital is an important arms-length measure of the extent to which the other objectives are being met – including showing market leadership and investing on a commercial basis. It also has an important role in ensuring the capital of the fund is allocated as efficiently as possible.
- What NZGIF considered crowding in was aligned with GIB peers and from the information provided was appropriate. On an individual investment basis, not all investments had achieved crowding in of capital, however, this is attributable to the early stage of NZGIF's investment and in each instance, there was an identifiable plan to attract private capital in the long-term.

Alignment to leading practice

All GIB peers identified have acceleration, or increase in private capital in green investments, as a key objective. All GIB peers report on private capital leverage ratios / private capital mobilised.

Key to this objective is when third-party investment is considered crowding in. CEFC reports leverage using private capital attracted into the investment per dollar of CEFC capital invested at the primary point of investment and does not include capital that replaces maturing CEFC capital.

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35 https://nzgif.co.nz/assets/Files/NZGIF-Annual-Report-2021-22-A4.pdf

NZGIF's methodology in deriving total amount of private capital attracted is in line with CEFC's method. NZGIF does not include secondary leverage as part of the co-investment leverage ratio target and reporting.

In banking, leading practice for crowding in private capital (called syndication) is for clear expectations to be set as to expected outcomes and for failure to meet these outcomes resulting in escalation within the financial institution including to the Board of Directors. We considered the investment DD reports to articulate expectations for this well.

Other observations and suggested improvements

Where NZGIF is investing in multiple parts of the capital stack and/or different types of capital, they should consider clearly articulating the rationale in investment DD reports and an appropriate risk assessment/justification provided. These matters do not readily lend themselves to reporting and KPI frameworks but rather require expert decision making at the Board / decisioning level.

We noted at least one situation where NZGIF appears to have full control of an investee company. Management was aware of this issue and are looking for opportunities to sell-down their ownership stake.

5.2.4 Show market leadership

Matters relevant to Leading practice	Key Measures
► Is the objective consistent with GIB peers? ► What is the market failure that requires NZGIF investment?	► Descriptions of how NZGIF have shown market leadership. ► Clear and transparent communication of performance against the other three objectives. ► Feedback from other market participants. ► Clear description of the market failure that requires NZGIF involvement in the investment DD report

Assessment	Closely aligned We consider NZGIF's approach closely aligns with leading practice. Our comments address low risk / minor findings

Review of NZGIF's self-assessed performance

NZGIF met their 2021/22 targets.

Although leading practice alignment remains, measures have been amended or removed in the SPE for 2022-23. Justification on the reason for removal / amendment could be provided for transparency.

Assessment Rationale

NZGIF are an active market participant and have an established presence in the New Zealand investment market, which is evident in their growing pipeline of potential transactions, and through disseminating relevant information to market participants and range of market engagement activities.

Although we could not find instances where this was a standalone objective, for many GIB peer's similar objectives are embedded in their other primary objectives.

Alignment to leading practice

- CEFC include a similar objective as part of their overall "Impact" value which focuses on being clear "*about the difference our investments make and the benefits they bring*".

- GIG believe that positive market influence is the result of following their seven Green Investment Principles – "Our [GIG] ambition is that, by publishing these investment principles, we will help to create momentum in a co-ordinated effort to build a greener global economy and, over time, to set a benchmark for the wider investor community".

Other observations and suggested improvements

- The premise behind the establishment of NZGIF was that there was insufficient funding available to meet the scale of climate mitigation strategies. Each investment could therefore have a clear "market failure" rationale – that is, why an investment has not been funded by traditional sources. We recommend that a more meaningful demonstration of market leadership would be to include a discussion of this "failure" when publishing case studies.

5.2.5 Other matters for consideration

Repayment of Establishment Costs

The Crown is funding $30 million of operating establishment costs via Redeemable Preference Shares ("RPS"). The RPS are redeemable after 1 July 2025 and once certain profitability criteria are met, which is determined at NZGIF's sole discretion. Once these conditions are met, NZGIF's Board can elect to redeem the RPS up to the value of 50% of NZGIF's operating profits in each financial year. Original policy papers suggested that once $100 million of capital is deployed, NZGIF is expected to be self-sustaining.

There is a high degree of control by NZGIF over the repayment of the RPS, and limited visibility over when this might be repaid. NZGIF is expected to report an operational deficit of $5 million for the year ended 30 June 2022, up from $4.4 million in the prior year. Management expect they will be EBITDA positive in financial year 2023, but we also note that impact of inflation on debt investments means this may not be a sufficient measure on financial performance. We also note:

- Operating costs are above levels indicated in the original Cabinet papers relating to establishment of the company, noting some of this may be the result of the increased capital base going from $100 million to $400 million.
- Income is small in relation to expenses, and it is difficult to know when that will change.

Any repayment of establishment costs could also be considered in the context of overall distributions. Accountability could be increased if some form of dividend policy was also considered in line with repayment of establishment costs. These dividends could be reinvested.

5.3 NZGIF's governance, policies, and procedures

This section details our assessment of NZGIF's governance, policies, and procedures against what we consider leading practice. There is less publicly available information on how comparable organisation's structure themselves against these areas.

This section relied on building out an understanding of the systems and processes in place through discussions with management. NZGIF's formal governance, policies, and procedures documentation, served as a useful base and guide for these discussions. Details of NZGIF stakeholders that we spoke to are detailed in Appendix A.

We have assessed NZGIF's governance, policies, and procedures against the measurement criteria outlined in Table 10. What were considered matters relevant to leading practice and key measures is outlined in each sub-section.

Table 10: Governance, policies, and procedures performance framework

Definition	Measurement Criteria
Closely aligns	Closely aligns with leading practice. High levels of evidence, subject to comments that are relatively low risk or minor in nature.
Broadly aligns	Selected alignment to leading practice. Partial evidence with more extensive comments and those that are higher risk or more substantial in nature.
No/little alignment	No evidence of alignment to leading practice

5.3.1 Governance

Matters relevant to Leading practice	Key Measures
▶ Is the Governance structure aligned with comparable financial institutions, to ensure that the appropriate mitigations are in place to identify and manage risks? ▶ Is there clear accountability and separation of duties for each role?	▶ Clear articulation and evidence of Governance structures ▶ Comparison with leading practice ▶ Clear distinction of responsibilities between the Board and management ▶ Issues relating to Governance clearly identified with shareholders for feedback

Assessment	Closely aligns - We consider NZGIF's approach closely aligns with leading practice. Our comments address low risk / minor findings.

Assessment Rationale

We note that at the time of this review, NZGIF has well developed and clear governance structures and undertakes appropriate levels of documentation of decisions. It is in a relatively early stage of its development with both commercial and public policy objectives, for which its governance is aligned to.

Financial institutions display a broad range of types of governance approaches depending on the type of institution, and our suggestions reflect this.

Alignment to leading practice

A multitude of checks and balances are required which are developed and refined over time. Many of these checks and balances require scale to be achieved given the important of establishing segregation of responsibilities and reporting.

Directors should be familiar with the operational and governance matters of financial institutions as well as those of the companies in which NZGIF is investing. We note GIF has control over some investees which increases the Governance responsibility.

As NZGIF grows, there may be benefits to further segregation of duties and having a clear distinction between investment and governance decisions. NZGIF could consider:

- The Board has previously acted as the Investment Committee in respect of the decision as to whether to undertake a particular investment. More recently, NZGIF started to form a sub-investment committee of the Board to analyse due diligence performed on particular investments in detail with the final decision then made by the full Board. We think that the Board or a Board sub-committee acting as the Investment Committee weakens some of the governance aspects that typically happen within a financial institution. A greater separation of the Board from investment decisions could be considered.
- The function of "Risk" is not currently contained within a single role but rather is part of the portfolio of responsibility held by the Chief Operating Officer. Governance would be strengthened if a "Risk Officer" position is established with reporting directly to the CEO or the Board of Directors. NZGIF could consider this approach that is adopted at many commercial banks and is consistent with CEFC, which separates out its risk management responsibilities to the "Chief Risk Officer", who reports up to the CEO independent from the operations and investment functions and oversees alignment of investments to the organisation's risk policies.
- A risk function is often supplemented with another layer of functionality, portfolio review. This function is independent and a further check that the risk function is doing a sufficient job. The size of NZGIF makes establishing these protections difficult, but it does not diminish their need in ensuring integrity of the organisation.

NZGIF have advised that they are in the process of building out their risk function and have a new position of "Portfolio Manager" beginning in early 2023. NZGIF have stated that many of the responsibilities of a "Risk Officer" are vested in Portfolio Manager position.

Other observations and suggested improvements

- The Board acting in an investment decision-making role (either directly or through sub-committee) we think increases the importance of regular shareholder monitoring, possibly through developing either current or new standardised reports. We note the quarterly analysis by The Treasury of financial performance and consider this an important check and balance on the activities of NZGIF and both parties could consider whether this was expanded in scope (i.e., review of investment pipeline, profitability forecast model, and overview of investment decisions and rationale and performance of existing investments).
- NZGIF has control over at least one investee which increases the Governance responsibility. Management and the Board are aware of this.
- Corporate governance tools may be different for debt and equity investments given the levers by which NZGIF can influence the direction of the investee companies. NZGIF provide governance support to their equity investments through ownership versus loan agreements for their debt investments.

5.3.2 Policies

Matters relevant to Leading practice	Key Measures
► Are the policies and procedures aligned with comparable financial institutions? Particularly focussing on: o Clear rationale for involvement by NZGIF and decision making determined by objectives o The investment originations and approval process o Portfolio management and risk management process	► Investment DD report and other management reports enables clear understanding of the investment structure, risks and alignment to NZGIFs objectives ► Discussions and questions on each investment / the portfolio are documented as part of the decisioning process ► Processes exist that enable the identification and measurement of risk to the portfolio ► Clear understanding of processes to maximise the benefits from the capital endowment

Assessment	Broad alignment - We consider NZGIF's approach has broad alignment with leading practice. Our comments are suggested improvements, being matters that should be discussed between NZGIF, its Board and potentially shareholders.

Assessment Rationale

A substantial proportion of NZGIF's portfolio is structured debt products and this is expected to continue. Structured debt is a specialised product offering. When provided by a commercial bank this product requires well developed systems to originate, structure and execute and then actively monitor over the product life cycle.

Through our review of the investment and risk policies, and our conversations with management, we sought an understanding of the investment DD and approval process for debt investments. We think that the process within NZGIF can be tightened through adopting more bank-related processes. The following should be considered:

- Standardising the way in which investments are presented to the Board, and ensuring the key risks, benefits and market failure is evident quickly.
- In several investment files we noted the use of credit scores. NZGIF supplements this work with their own analysis. This process could be strengthened by developing an internal credit risk framework and approach that reflects the credit risk frameworks adopted by the major rating agencies. This approach would standardise the analysis, giving comfort to approvers that a robust process has been undertaken.
- Management stated that market pricing information was established and reviewed as part of the DD process. We did not see the evidence of this process in the investment DD reports provided and expect to see this covered in more detail when presented to the Board.
- The view was expressed to us that New Zealand financial markets are undeveloped in certain areas. NZGIF could be more precise in their investment DD reports and any other reports/case studies about the reason for "market failure" that requires NZGIF involvement.

Alignment to leading practice

Banks adopt consistent approaches to applying a risk rating to debt investments. In the absence of an internal risk rating model, we would expect shadow credit rating analysis is undertaken to align an investment with a well understood benchmark, such as Standard & Poor's and/or Moody's.

CEFC develops a shadow credit rating for every debt investment made, enabling transparent and appropriate pricing, alignment of portfolio to the risk appetite and reporting of counterparty credit risks (i.e., CEFC reports on the percentage of debt investments in investment grade and non-investment grade counterparties).

The way in which information is presented is closer to an investment memorandum that an investment bank would prepare to sell a transaction externally. When considering a debt investment, banks typically adopt a standardised approach that, upfront in their report, succinctly describes the key terms and conditions of the loan, including the borrower; product terms (facility type, amount, tenor, price); security overview; covenants and risk rating. Although this information was within the investment DD reports prepared by NZGIF, the way in which it was presented could be clearer and we suggest developing a standardised "front sheet".

The way in which investment approvals, including the investment DD report and decisions, are documented makes it difficult to know whether "the hard questions are being asked and answered". Financial institutions normally have well documented and robust internal decision-making processes and suggest a more transparent approach to documenting the decisioning is undertaken, possibly through an investment committee question and answer framework with documented minutes.

Other observations and suggested improvements:

There is a lot of information in the investment reports that, while good background, do not address some of the issues (e.g., key credit and counterparty risks) in sufficient detail. Further emphasis on describing the "market failure" that justifies intervention would also be useful.

NZGIF made an investment into an entity owned by NZ Post which is a State-Owned Enterprise. This investment does not align with the initial considerations for sector-specific exclusions given to Cabinet, which precludes NZGIF from investing in the state sector. However, we note our comments in the Strategic review recommends NZGIF consider removing this exclusion. Refer to Section 6.2 and Table 16 for EY's recommendations around sector-specific exclusions.

Stakeholder communication policies could also be reviewed. We acknowledge the difficulty of communication of NZGIF outcomes given the broad set of objectives. We would encourage more standardised reporting approaches including consistency in measurement and presentation of outcomes across time periods.

5.4 The skills and capabilities of NZGIF's Board and Management

In assessing the skills and capabilities of the Board, management, and operational and investment teams we consider the criteria outlined in Table 11 important in forming our opinion.

Table 11: Criteria for assessing the Board and management

#	Criteria	Description
1.	Loan product	Experience originating, structuring, and managing debt investments
2.	Corporate finance	Understanding of corporate finance principles and experience in assessing and valuing companies
3.	Investment and asset management	Experience managing an investment portfolio
4.	Governance and compliance	Experience in stakeholder management, internal control systems, risk management, compliance management and internal audit
5.	Target sector expertise	Experience investing in, or strong understanding of, NZGIFs target sectors

We have assessed NZGIF's Board and management against the measurement criteria outlined in Table 12.

Table 12: Skills and capabilities performance framework

Definition	Measurement Criteria
Close alignment	Closely aligns with leading practice. High levels of the required skills and experience, subject to comments that are relatively low risk or minor in nature.
Broad alignment	Broad alignment to leading practice. Sufficient levels of the required skills and experience with more extensive comments and those that are higher risk or more substantial in nature.
No/little alignment	No evidence of alignment to leading practice across the portfolio.

EY is not providing an opinion of each individual's skills and capabilities, rather we have formed a view of the organisation and its Board as a whole. We acknowledge that our review in this nature is limited. Other than several discussions with management, our assessment is primarily based on a desktop review of documents and very short-form CV material provided. We have not reviewed the experience of NZGIF's employees below the management level. Any comments below should be taken in this context and can be considered items for further analysis and discussion.

Assessment	Broad alignment - We consider NZGIF's approach has broad alignment with leading practice. Our comments are more substantial in nature, being matters that should be discussed between NZGIF, its Board and potentially shareholders.

Assessment Rationale:

Overall, we observed a good mix of skills across both the Board and management. However, NZGIF may benefit from strengthening the organisation's debt expertise (particularly single credit risk products).

Alignment to leading practice

Whilst GIB peers do not explicitly list the mix of skills they expect from their Board and management, key skills and capabilities are apparent in the reporting of roles and management functions. We consider CEFC's transparent reporting of their Board and Management to be a good example of a leading practice. Their annual report provides detailed CVs and responsibilities of the Board and management roles and illustrate how their experiences and skillsets are sufficient to achieve these responsibilities. NZGIF could consider outlining the Board and Management's responsibilities and skillset in more detail in their annual reporting.

We did not observe the levels of experience with debt (particularly single credit risk products) products we would expect given its prevalence in the portfolio and pipeline, and the specialised nature of the products NZGIF is originating. NZGIF may consider strengthening the organisations debt expertise, through the appointment of persons experienced in direct, single credit, lending either at an origination and/or governance level, particularly in a New Zealand context.

We note in some situations, investments go beyond making a portfolio investment and amount to NZGIF having a high level of control over the company in which they are investing. In these situations, and arguably the complexity of ensuring adequate governance may increase.

Other observations and suggested improvements

Nil

6. Strategic review

This section focusses on NZGIF's outlook and describes what might be required for NZGIF to continue delivering on its mandate in the future. To gain understanding of these issues, EY conducted discussions with NZGIF, Treasury and government agencies, and performed a review of relevant literature and international green investment banks. Questions within three key areas were identified as pivotal to understanding NZGIF's ability to fulfil its purpose and objectives:

1. Capitalisation – is NZGIF large enough to be able to continue to achieve its objectives?
2. Independence - what role does this characteristic play in NZGIF's future success?
3. Cooperation – is there value in closer coordination with other components of the domestic climate change policy framework?

These areas have been identified as shaping the core characteristics of international GIBs[36]. The following section provides further detail on the results of the analysis of each of these three key focus areas.

6.1 Capitalisation

Assessment	Consider a capital increase[37] of NZGIF's in order to continue to achieve its objectives and play a substantial role in decarbonising New Zealand.

Our analysis supports the value of an increase in capitalisation for NZGIF, subject to the operational considerations highlighted through the performance review being considered. Key considerations driving our support for the increase in capitalisation include the:

- Continuing need for NZGIF to address market failures
- Pool of capital to support low-carbon development seems insufficient based on the scale of climate challenge in New Zealand
- Positive impact that recapitalisation would have on NZGIF

Market failures

During the establishment work for NZGIF, missing markets and imperfect information were identified as key market failures. These failures were outlined in a report commissioned by Treasury[38] to better understand and evidence the need for a Green Investment Bank in New Zealand. Missing markets are characterised by a lack of development in the market due to low number of transactions, small transaction sizes and high transaction costs, or unwillingness of investors to make capital available in an underdeveloped market. Imperfect information is characterised by the limited data available to investors about a particular opportunity, leading them away from investing in commercially available (but novel) opportunities due to simpler and better understood options being available to them elsewhere.

Since the formation of NZGIF, there has been a rapid scaling up of climate change action and initiatives, both globally and domestically (see Table 13). However, although the scale of funding and financing for low-carbon investment is higher now than it was when NZGIF was formed, there still is a continuing need for NZGIF to address these same market failures. Table 14 outlines NZGIF's market position compared to other domestic financing and funding channels.

Key characteristics that differentiate NZGIF from other channels are its:

- Financing instead of funding: NZGIF's focus on financing commercially viable activities rather than funding leads to opportunities to create additional capital for future emissions reduction activities. While there are several other financing channels in the market, these are either not

[36] OECD (2016), *Green Investment Banks: Scaling up Private Investment in Low-carbon, Climate-resilient Infrastructure*, Green Finance and Investment, OECD Publishing, Paris, https://doi.org/10.1787/9789264245129-en.
[37] Quantification of capital increase was out of scope for this review.
[38] Coffey & Sapere, *New Zealand Green Investment Finance: Prepared for The Treasury.*

focused on emissions reduction opportunities, or are not aligned with NZGIF's characteristics to create new direct investment in early to middle stages of commercialisation.

Direct investment in areas which lack secondary markets: NZGIF's key role to attract new and direct investment into emissions reduction opportunities is key in addressing market failures associated with emissions reduction investments. Several funds have been established since NZGIF inception that might directly also support new opportunities. These, however, are grant funding channels which although play an important role in the market, might not crowd in private investment in emissions reduction opportunities.

Table 13: Key external factors since NZGIF's inception

Driver	What is the driver	Influence on NZGIF
NZ's first Emissions Reduction Plan (ERP)	• The first ERP describes the climate mitigation policies required to meet the first emission budget and indicates the direction of climate change policy for the subsequent two emissions budgets as well. • It sets out a wide-ranging portfolio of more than 300 actions, decisions, plans and strategies that should act to reduce emissions throughout the economy. • The ERP established the $4.5bn Climate Emergency Response Fund (CERF) • Other funding and financing activities established by the ERP include climate-risk reporting obligations, Sovereign Green Bonds, Crown Responsible Investment Framework for Crown Financial Institutions, CNGP, etc.	• The ERP has resulted in substantial funding being made available for reduction of emissions in the NZ market which has at times created competition for the financing offered by NZGIF • The ERP has also described or set out policy interventions in a wide range of domestic sectors that provide direct or indirect financial incentives to decarbonise which often reduce the need for funding that could otherwise have been required. • However, despite this dramatic surge of climate change mitigation policy, the scale of the decarbonisation challenge still likely to leave opportunities for NZGIF to invest.
CERF (Climate Emergency Response Fund)	• A fund designed to help address long-term climate change challenges • This money has come from the forecast cashflow of NZ ETS auctions over the next five years • Down payment of $4.5 billion has been made available for this fund, not all of which has yet been allocated	• The scale of the funding that could be available through the CERF raises the importance of coordination between government action and NZGIF to avoid duplication and ensure that NZGIF and its associated private sector financing is not crowded out by government funding.
GIDI Fund (Government Investment in Decarbonising Industry)	• The GIDI fund has been substantially recapitalised, taking its available capital from $67m to nearly $700m • GIDI's goal is to accelerate business decarbonisation in support of the Government's emissions reduction goals. GIDI has a staged implementation approach, with specific opportunities for small to medium enterprises. • Optimising energy use by NZ businesses, easing the transition and helping improve productivity.	• Similar influence as ERP and CERF as the GIDI fund is closely related to both of these initiatives. • Coordination is necessary to avoid duplication and ensure that private sector is not crowded out by funding.
Mandatory climate-related disclosures	• 200 of the largest firms in NZ are captured by the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021 • These firms will need to report on their climate-related disclosures against the Aotearoa New Zealand Climate Standard 1: Climate-related Disclosures (NZ CS 1) developed by the External Reporting Board (XRB). • This standard is based on the framework developed by the Taskforce for Climate-Related Disclosures (TCFD) which is rapidly becoming the international standard.	• This legislative driver should increase the demand in NZ for climate-related investment capital • This is because a wider range of firms will be forced to look in detail at the climate-related risks that their organisation faces and put a plan together to mitigate them • This activity is likely to have a flow-on impact into the demand for the investment products/options that NZGIF is working to build
Sustainable Financing e.g. SLLs Aotearoa New Zealand Investor	• There has been a substantial increase in the volume and scale of sustainable financing products over the last three years • This trend has occurred both domestically and internationally	• Sustainable financing products have not typically been used to target the same types of novel direct investment opportunities which NZGIF has been pursuing. • The scale of sustainable finance products is often very large in order to cover the costs of developing, reviewing and assuring progress

Driver	What is the driver	Influence on NZGIF
Coalition For Net Zero	• Sustainable Finance agreements are typically financed by traditional banks	towards them. This scale difference puts them out of NZGIF's target product range.
NZAOA (Net Zero Asset Owners Alliance)	• Member-led initiative of institutional investors with the aim of transitioning their investment portfolios to net-zero by 2050. • Targets-based initiative	• This initiative should enlarge the pool of low-carbon capital that is available in the long-run globally • The risk profile of most of these investors will mean that they are not competing for the same investments as NZGIF
NDC (Nationally Determined Contribution)	• For NZ "To reduce net greenhouse gas emissions to 50 per cent below gross 2005 levels by 2030" • This responsibility target is economy-wide covering all sectors (Energy, Industrial processes and product use, Agriculture, Forestry and other land use, and Waste) and all greenhouse gases.	• There is no 'direct' link to NZGIF however the work that NZGIF are undertaking will continue to support and facilitate the investment from the private sector in order to achieve the NDC.
NZ ETS price rise	• The price of emissions through the New Zealand Emissions Trading Scheme has risen substantially since NZGIF was formed • The price of a tonne of emissions through the scheme is currently trading at $88, whereas it was below $30 in 2019	• The higher NZ ETS price has made a greater range of low-carbon technologies commercial by raising the costs of investment counterfactuals with higher emissions. • For some technologies which are already commercial, or close to commercial, this price rise may have had an important impact on their investment attractiveness

Table 14: NZGIF's market position compared to other funding and financing channels. **Organisations established after NZGIF's inception. Primary investment type not applicable to government funds.*

	Organisation type	Scale	Climate-specific capital?	Type of channel		Primary investment type	
				Funds	Finance	Liquid assets/ securities	Direct investment with no secondary markets
Climate Emergency Response Fund (CERF)*[39]	Government funds Long-term climate action	$4.5b[40]	Yes - all				
Government Investment in Decarbonising Industry (GIDI) Fund*	Government funds for climate action in industry	$746.7m[41]	Yes – all				
Low Emissions Vehicles Contestable Fund / Low Emissions Transport Fund* (LEVCF/LETF)[42]	Government funds for climate action in EVs	$118[43]	Yes – all				
Plastics Innovation Fund (PIF)*[44]	Government funds for action to minimize plastic waste	$50m[45]	No – But waste reduction could lead to climate-related co-benefits				
Callaghan Innovation (CI)[46]	Research Institute	$222m[47]	No				
Strategic Science Investment Fund (SSIF)[48]	Government funds for strategic investment in research programmes and scientific infrastructure	$260m[49]	No				
Provincial Growth Fund (PGD)[50]	Government Fund to simulate regional economic development	$3b; mostly already allocated[51]	Yes – sustainability and climate change one of PGD's objectives				

[39] https://www.treasury.govt.nz/information-and-services/nz-economy/climate-change/climate-emergency-response-fund
[40] https://budget.govt.nz/budget/2022/wellbeing/fiscal-strategy/climate-emergency-response-fund.htm
[41] https://budget.govt.nz/budget/2022/wellbeing/climate-change/partnering.htm
[42] https://www.eeca.govt.nz/co-funding/transport-emission-reduction/low-emission-transport-fund/#:~:text=Objectives%20of%20the%20fund,the%20New%20Zealand%20transport%20sector.&text=reduce%20energy%20related%20emissions%20in%20the%20transport%20sector
[43] https://www.eeca.govt.nz/assets/EECA-Resources/Co-funding/LETF_launch-webinar_141021.pdf
[44] https://environment.govt.nz/what-you-can-do/funding/plastics-innovation-fund/
[45] https://environment.govt.nz/what-you-can-do/funding/plastics-innovation-fund/
[46] https://www.callaghaninnovation.govt.nz/
[47] https://www.callaghaninnovation.govt.nz/sites/all/files/Callaghan_Innovation_Statement_of_Performance_Expectations_2022_23_Final_Jun_2022.pdf
[48] https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-information-and-opportunities/investment-funds/strategic-science-investment-fund/
[49] https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-information-and-opportunities/investment-funds/strategic-science-investment-fund/
[50] https://www.govt.nz/organisations/provincial-growth-fund/
[51] https://www.govt.nz/organisations/provincial-growth-fund/

				Type of channel		Primary investment type	
	Organisation type	Scale	Climate-specific capital?	Funds	Finance	Liquid assets/ securities	Direct investment with no secondary markets
New Zealand Super Fund (NZSF)[52]	Institutional investor; Pre-fund liability	$55.7b[53]	Potentially – mandate isn't climate-specific, but have shifted $25b of investment portfolio to market indices that align with the Paris Agreement				
Accident Compensation Corporation (ACC)[54]	Institutional investor; Match liability	$45b[55]	Yes - $100m fund focused on investments in initiatives that reduce carbon emissions				
Elevate NZ Venture Fund[56]	Venture capital investor	$300m[57]	No				
Impact Enterprise Fund[58]	Venture capital investor for social/ environmental outcomes	$9m[59]	Potentially – Investments could be climate-related				
Sustainable/ Green Bonds	Debt instrument	n/a – investment instrument	No - Green investments could be climate-related				
Sustainability-Linked Loans	Banking instrument	n/a – investment instrument	No – KPIs for SLL could be climate-related				
NZGIF	Investment bank	$400m	Yes - all				

[52] https://www.nzsuperfund.nz/
[53] https://www.nzsuperfund.nz/assets/Publications/Annual-Reports/Annual-Report-2021-22.pdf
[54] https://www.acc.co.nz/about-us/our-investments/
[55] https://www.acc.co.nz/about-us/our-investments/
[56] https://www.nzgcp.co.nz/funding/elevate-venture-fund/
[57] https://www.nzgcp.co.nz/assets/Documents/NZGCP-Elevate-FAQs-June-2022-v2.pdf
[58] https://impactenterprisefund.co.nz/for-investors
[59] https://impactenterprisefund.co.nz/for-investors

Scale of climate challenge:

Further capitalisation would contribute towards addressing the substantial gap between New Zealand's domestic and international emissions reduction targets.

New Zealand's Nationally Determined Contribution (NDC) submission to the United Nations Framework Convention on Climate Change under the Paris Agreement communicates an ambition to reduce the country's net greenhouse gas emissions to 50% below gross 2005 levels by 2030 over the 2021-30 period[60]. This equates to an emissions budget of 571 $MtCO_2$-e over the period of 2021-2030. Predictions of New Zealand's current path under current policies estimate a net emissions exposure of 720 $MtCO_2$-e between 2021-2030, with annual emissions reaching approximately 66 $MtCO_2$-e in 2030[61]. Consequently, New Zealand will need to reduce 149 $MtCO_2$-e between 2021 and 2030, an annual average of 16.5 $MtCO_2$-e.

Looking out to 2050, New Zealand has set long-term targets under the *Climate Change Response (Zero Carbon) Amendment Act 2019* to reduce net emissions of all greenhouse gases other than biogenic methane to zero by 2050, and reduce biogenic methane 25-47% below 2017 by 2050[62]. New Zealand reported 41.2 $MtCO_2$-e of non-biogenic methane gases in 2019[63], which would need to be reduced to zero by 2050.

NZGIF estimates that $30 billion of additional spending will be needed to meet New Zealand's emissions reduction targets, a calculation based on estimates from the Climate Change Commission[64]. Currently policy projections see New Zealand's net emissions being reduced mainly from carbon removals through forestry. However, New Zealand's reliance on forestry would pose challenges to sustaining net zero long-lived emissions beyond 2050[65].

However, although an increased number of funding and financing channels now exist in the market since NZGIF's inception (see Table 15), the expanded pool of capital may still be insufficient to meet the scale of the challenge. NZGIF's focus on direct investments with no secondary markets and crowding in private capital puts NZGIF in a good position to be able to support New Zealand in its journey to continuing decarbonisation.

To illustrate NZGIF's capitalisation against other international green investment banks, and New Zealand entities, Table 14 and Table 15 provides an overview of the total capitalisation of NZGIF and other New Zealand entities, and international GIBs assessed as part of this review.

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[60] United Nations Framework Convention on Climate Change, 2021, *New Zealand's first Nationally Determined Contribution: Updated 4 November 2021.* Retrieved from https://unfccc.int/sites/default/files/NDC/2022-06/New%20Zealand%20NDC%20November%202021.pdf
[61] Ministry for the Environment, 2022, *Data underpinning NDC,* Retrieved from https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/nationally-determined-contribution/
[62] Ministry for the Environment, 2022, *Greenhouse gas emissions targets and reporting,* Retrieved from https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/emissions-reduction-targets/greenhouse-gas-emissions-targets-and-reporting/
[63] Climate Change Commission, 2021, *2021 Supporting Evidence: Chapter 11: Where are we currently heading?,* Retrieved from https://www.climatecommission.govt.nz/public/Evidence-21/Evidence-CH-11-where-are-we-currently-heading.pdf
[64] Based on modelling done by the Climate Change Commission using relationships with Gross Domestic Product and the national greenhouse gas inventory
[65] Climate Change Commission, 2022, *Ināia tonu nei: a low emissions future for Aotearoa*, Retrieved from https://www.climatecommission.govt.nz/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa.pdf

Table 15: Capitalisation of NZGIF and other international GIBs. To provide appropriate benchmarking capitalisation is provided at the end of 3rd year since establishment

GIB	Year of establishment	Total Capitalisation (NZD)[66]	Capital deployed to date (NZD)	Initial capital (NZD) [67]	Initial capitalisation as % of GDP[68]
Clean Energy Finance Corporate (CEFC)[69]	2012	$19.6b	$9.88[70]b	$19.6b	0.47% of AUS GDP[71]
Green Investment Group (GIG)[6]	2012 (sold to private entity in 2017)	$5.75b	$48.3b committed[72]	$5.75b	0.26% of UK GDP[73]
NY Green Bank (NYGB)	2013	$1.58b	$2.68b[74]	$344m	0.02% of NY GDP[75]
Connecticut Green Bank (CTG)[6]	2011	Not available	$461m[76]	Not available	Not available
NZGIF	2019	$400m	$104.5m	$100	0.13% of NZ GDP[77]

Positive impact that recapitalisation would have on NZGIF

A potential increase in NZGIF's capitalisation has been supported by all stakeholders engaged, and documentation reviewed by EY. An increase in capital would support NZGIF in four key areas:

- Increased scale: NZGIF's existing $400m balance sheet poses limitations to the size of projects that it can currently support, and consequently the type of investments. A larger capitalisation would support NZGIF to be able to tolerate increased risk and process different investment types. Providing additional scale would further justify implementation of risk management and governance changes highlighted in section 5.3 of this report.
- Co-investment opportunities: From inception to 30 June 2022, NZGIF's co-investment to overall investment ratio since its inception represents is 1:2. The statement of Performance Expectations for 2022/23 includes an increase in this ratio, which reflects NZGIF's growth in the market. NZGIF, however, has currently been unable to access co-investment opportunities with many large investors in New Zealand due to its small balance sheet compared to these entities. As an example, ACC and NZ Super Fund both manage more than $45b of investments[78]. Due to the high minimum investment size of NZ Super Fund in particular, co-investment with them can typically involve a minimum of $100-200 million, a significant amount for the size of NZGIF's total capital[79]. An increase in capitalisation would support NZGIF to further its co-investment opportunities with larger New Zealand investors, and consequently, its impact in the market.

[66] Converted to NZD on 16 December 2022.
[67] Converted to NZD on 16 December 2022.
[68] The GDP numbers provided by the World Bank are in USD. Percentage was calculated by converting the initial capitalisation number to USD and performing the calculation with all $ figures in USD. Dollar conversion was done on 16 December 2022.
[69] Please see description of GIB in Table 3 NZGIF Objectives - Measurement criteria
[70] Lifetime deployment reached $9.88b NZD in 30 June 2022 as per Annual Report: https://statics.teams.cdn.office.net/evergreen-assets/safelinks/1/atp-safelinks.html
[71] As per the World Bank: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=AU
[72] As per GIG website: https://www.greeninvestmentgroup.com/en.html#footnote-1
[73] [73] As per the World Bank: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=GB
[74] As per NYGB 2021-22 Impact Report: https://greenbank.ny.gov/Resources/Impact-Report
[75] https://www.osc.state.ny.us/reports/finance/2020-fcr/economic-and-demographic-trends
[76] As of FY21, per Annual Report: https://bondlink-cdn.com/5721/FY21-annual-report-website.dwJyk39UM.pdf
[77] New Zealand's GDP was $300b NZD in June 2019 as per Stats NZ: https://www.stats.govt.nz/information-releases/gross-domestic-product-june-2019-quarter#:~:text=New%20Zealand%20economy%20grows%200.5%20percent%20Economic%20activity%2C,2.4%20percent%20over%20the%20year%20ended%20June%202019.
[78] It is important to note that the scale of the investment portfolio for ACC and NZ Super cannot be used as a comparator for the potential scale of a direct investment bank like NZGIF. ACC and NZ Super serve different purposes with significantly larger investment portfolios. These portfolios are mainly invested in asset classes suitable for institutional investors, which generally requires assets to meet strict liquidity and risk requirements. In contrast, NZGIF needs to seek out and often construct its investment opportunities from scratch.
[79] Data on minimum capital required was taken from Treasury report, based on information provided by NZGIF.

- Certainty of continued operations: Certainty of continued operations is pivotal to the continuing success of NZGIF. As per Figure 5, NZGIF's has committed and reserved $235m to reduce emissions in New Zealand to date. Additionally, NZGIF's long-term investments provide a comparative advantage in the market. An increase in capitalisation would signal to the market NZGIF's ability to continue its investments in the market, especially its ability to continue servicing its long-term investments.
- Supplying the continued need in the market: In addition to its committed capital, NZGIF's current pipeline for potential investments is worth $289m. NZGIF has built a fit for purpose pipeline, currently focusing on investments in public transport and solar panel industries. These investments require larger capital in order to support transformation at pace. An increase in capitalisation would support NZGIF to continue pursuing these investment opportunities.

The combination of the points above in the event of significant increase in capitalisation would generate a flow on effect, increasing NZGIF's capacity to crowd in private capital, and support New Zealand in its decarbonisation journey.

6.1.1 Matters for consideration

As part of any recapitalisation, Treasury and NZGIF should consider the suggestions from the Performance review in section 5 above. Many of these suggestions acknowledged the organisation has only recently been formed and were provided to support any growth and increased complexity of the organisation. In particular, we point to the suggestions made with respect to NZGIF's policies, procedures, and processes that focus on risk identification and management as being important to this decision.

Repayment of establishment costs: As discussed in section 5.2.5, the Crown is funding $30 million of NZGIF's operating establishment costs via Redeemable Preference Shares. These are redeemable after 1 July 2025. Originally, it was suggested that NZGIF is expected to be self-sustaining once $100 million of capital is deployed. Operational costs are above expected levels, with NZGIF expected to report an operational deficit of $5 million for the year ended 30 June 2022. This might be the result of the recapitalisation from $100 million to $400 million. Further investigation will be needed on the impacts that additional recapitalisation might have on NZGIF's operational costs and ability to self-sustain. We reiterate our suggestion to identify how much time in each role is spent on Government policy and reporting as a way of identifying the cost to the organisation of NZGIF's public policy objectives as separate from the commercial investment activities.

6.2 Independence

Assessment	NZGIF should retain its independence, as having the independent authority to meet its mandate is a key strength of NZGIF's operating model.

Independence is not only a strength of NZGIF, but also a key feature of other GIBs internationally. NZGIF's current mandate and independence allows it to use its commercial expertise and judgement to inform investment decisions as they become available or are put together. Limiting this ability could jeopardise NZGIF's ability to best serve the market where it is needed.

The independence of NZGIF can play a key role in delivering:

- Insulation from future electoral cycles. Independence can help NZGIF to gain support from future Governments so that it can make larger and longer-term investments. Independence also allows for NZGIF to be more resilient to the political cycle.
- Another set of 'eyes and ears' in the market. Independence could also provide NZGIF with the ability to seek out new and innovative direct investment opportunities. The nature of the task that NZGIF has been set means that there is no pre-existing 'menu' of investment opportunities that can simply be selected from – these opportunities need to be uncovered and developed to become investable.
- Innovation in funding and financing approaches. Independence from central Government direction frees NZGIF to work with a wider range of market participants to ensure that alongside innovation in policy and technology, that innovation in financing approaches can be a core focus for them. NZGIF already has the freedom to work or partner with Government agencies to seek to build innovative funding and financing approaches.

Our review of the performance of NZGIF supports the value that independence has brought to their work. Our assessment of both their ability to crowd in private finance and to show market leadership is that their performance against these objectives is closely aligned with leading practice. NZGIF has made good use of its independence in achieving these outcomes.

Cabinet and Treasury could also consider reducing the number of specific restrictions that are placed on NZGIF and to rely more heavily on NZGIF's objectives as the guardrails for NZGIF outcomes. For example, NZGIF is currently restricted from investing in large-scale renewable energy generation in two different ways:

1. NZGIF has been specifically restricted from investment in this sector by Government. This restriction was put in place because when NZGIF was being established the Government was advised by officials that there was no evidence of financing gaps in this sector at that time.
2. NZGIF would also find it difficult to invest in many types of large-scale renewables projects because of the objective that it has to show market leadership. For the areas where there is plenty of investment available, there is little market leadership to be demonstrated from putting more money into the same places as other investors.

It appears unnecessary to have these two different restrictions in place at the same time when only one might be needed. The broadest mandate is set by NZGIF's objective to both show market leadership and to crowd-in private finance and so it may be better to retain this mandate and consider removing the sector-specific restriction. We recommend Cabinet and Treasury consider reducing the number of specific restrictions that are placed on NZGIF. Table 16 provides an overview of EY's recommendations, and relevant rationale, for sector-specific exclusions.

Table 16: EY recommendations about sector-specific exclusions

Exclusion	Original rationale for exclusion given to Cabinet	EY advice	Rationale for EY advice
Large scale electricity generation	There is no evidence of financing gaps in this sector.	Consider removing this exclusion	NZGIF's objectives to show market leadership and to crowd-in private capital are likely sufficient to prevent NZGIF from financing the 'easy' opportunities in this sector which are already filled by traditional finance players. There may be niche, difficult or adjacent investments within this sector where NZGIF could still play a role.
Forestry	The sector is already well populated with funds due to the One Billion Trees programme	Consider removing this exclusion	NZGIF's objectives to show market leadership and to crowd-in private capital are likely sufficient to prevent NZGIF from financing the 'easy' opportunities in this sector which is already filled by traditional finance players and/or NZ ETS incentives. There may be niche, difficult or adjacent investments within this sector where NZGIF could still play a role.
Carbon Capture and Storage (CCS)	The [existing] legislation was not adequate to manage the risks of CCS and it is therefore not viable to undertake these projects in NZ	Consider removing this exclusion	NZGIF's own due diligence processes should be capable of identifying these legislative risks and technical immaturity for as long as they remain an issue.
The State Sector	Excluded because the government already funds these entities, and there are more effective levers available for their transition to a low emissions future.	Consider removing this exclusion	The State Sector should be encouraged to seek innovative financing options through NZGIF, alongside or in addition to their existing funding and financing channels.

6.3 Coordination

Assessment	Treasury and NZGIF should investigate coordination mechanisms for NZGIF. Our analysis suggests that if/as NZGIF receives an increase in capital, coordination with other government activities will become increasingly important.

The importance of coordination with other government activities was consistently raised as an issue throughout our study. This is in part due to the range of other domestic funding channels that have emerged since NZGIF's inception (as illustrated in Table 13).

While funding approaches can also be effective ways to accelerate investment in target sectors, they do not require the recipients to repay the capital granted to them. NZGIF has identified multiple instances where businesses and organisations pursued other funding opportunities due to preferential terms. This has resulted in NZGIF missing investment opportunities and potentially leading to higher Crown costs than required. There is also the potential that, in some areas, this could lead to a de facto crowding out of NZGIF from the market. It is therefore important that NZGIF's activities are well coordinated with other government activities in order to avoid unconstructive duplication of efforts.

NZGIF's coordination with government can be achieved without threatening its independence, as long as care is taken to establish (a range of) appropriate coordination mechanisms. We also note that coordination does not mean greater direction from government about what, and what not, to finance.

Coordination mechanisms can help to:

- Build partnerships. In the same way that NZGIF can choose to use its independence to partner with private sector organisations where it sees attractive opportunities, NZGIF could choose to partner with other parts of the Public Sector. Where it does partner the Public Sector, it would need to maintain its focus on its purpose and objectives.
- Share experiences. Reducing emissions is a broad, complex and interconnected challenge for the economy of New Zealand that involves a wide range of stakeholders. Coordination can help to improve the knowledge and data sharing carried out by both NZGIF and other parts of the Public Sector.
- Develop innovative funding/financing packages. While NZGIF currently does not have any access to concessionary finance, like many of its international GIB peers, it can collaborate with other parts of the Public Sector where concessionary/grant funding is available. These could be packaged into funding/financing packages that extend the possibilities of the Public Sector as a whole.

Coordination mechanisms can help avoid:

- Competition for the same opportunities. Private sector entities should ideally not get different responses to their funding proposals from different parts of the Public Sector. During our review, it was noted in discussions with management that there were at least two cases where the financing options that were to have been provided by NZGIF were eventually funded from other parts of the Public Sector.
- Using funding when financing would be a more cost-effective outcome for the Crown. This is a particularly clear issue where the technologies/projects looking for support are close to commercial breakeven. This type of test could also be applied to Public Sector bodies when they make Budget bids for funding, as well as applied to Private Sector entities seeking support from the government.

Table 17 provides an overview of potential coordination mechanisms which could be investigated by NZGIF in conjunction with government agencies. There is the option to pursue several of them at the same time as they are not all seeking to address the same part of the coordination challenge. These opportunities have been identified by EY to support the Treasury with understanding potential avenues to be investigated, and all of these options would require further policy analysis before implementation.

Table 17: Overview of potential coordination opportunities

Potential mechanisms	Description	Pros	Cons
Memorandum of Understanding (MoU) between NZGIF and other agencies	NZGIF could potentially develop MoUs with other agencies to align funding and financing investment opportunities.[80]	Achievable at current pace and scale Increase financial innovation and create better opportunities to leverage private capital and finance additional projects	Lack of wider coordination with all funding agencies Potential increase in NZGIF's operational burden and costs due to decentralised nature of effort
Prioritising financing over funding	Public Sector entities could be required to consider financing options with NZGIF before making funding applications to The Treasury for some types of pre-agreed technologies and/or opportunities. This would be particularly important for projects or technologies that are (close to) commercial. Guidance could be developed to streamline this process if needed.	Financing is prioritized over funding Public sector funding could be made more efficient Relatively achievable at current pace and scale Increase financial innovation and create better opportunities to leverage private capital and finance additional projects	Increase in NZGIF's operational burden and costs to manage relationships with wide range of Public Sector entities
A 'shop-front' approach	Private sector funding/ financing proposals to go through a 'shop-front' entity which acts as a single point of contact to the NZ government's funding/financing options. The 'shop-front' would then decide which Public Sector entity is best suited to provide financing/funding. It could also help structure innovative financing solutions between Public Sector entities and private investors, which would benefit NZGIF's objectives of crowding-in capital (e.g. tiered debt facilities, where NZGIF takes the first loss provision). A shop-front could take multiple shapes: • Single agency as shop-front • Joint agency board as shop-front • Electronic portal as shop-front	Minimal overlap of efforts due to centralised model for all climate-related funding and financing opportunities Increased transparency of all government-related climate-related financing and funding in New Zealand Reduced administrative burden for projects as all opportunities are concentrated in one place Increase financial innovation and create better opportunities to leverage private capital and finance additional projects	This model assumes that investments are readily available in the market (whereas NZGIF usually needs to seek out and develop their investment opportunities directly with entities) Potential increase in Government's operational costs if electronic portal was to be built Potential for bias if single agency was to lead shop-front

[80] We note that an MoU is currently in place between NZGIF and MfE for projects in the Waste sector.

International example of Coordinating efforts: ARENA and CEFC

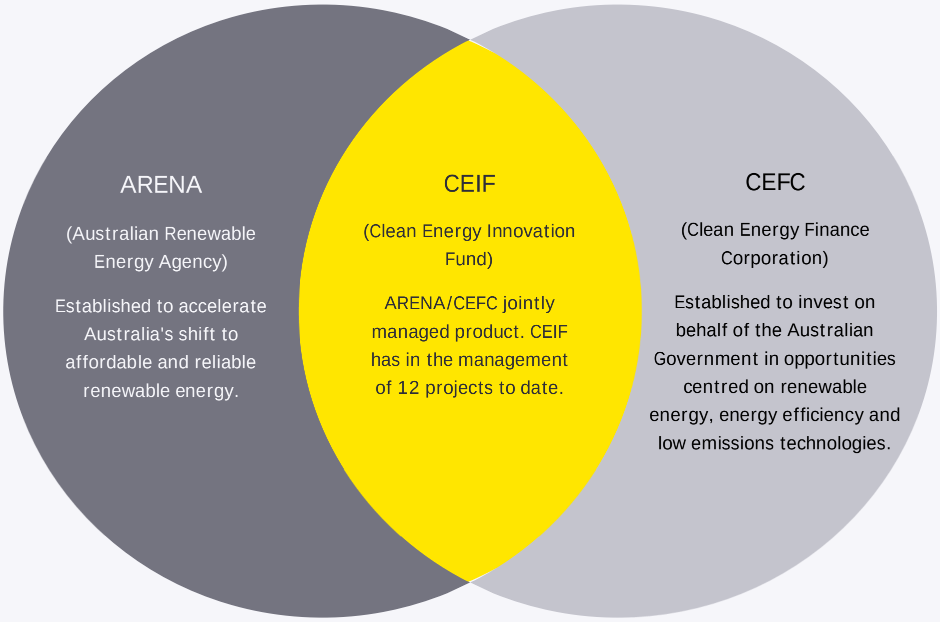

Figure 9: International example of Coordinating efforts: ARENA and CEFC

In Australia, the Australian Renewable Energy Agency (ARENA) fulfils a similar role to New Zealand's Energy Efficiency & Conservation Authority (EECA). Parallels can also be drawn between the Clean Energy Finance Corporation (CEFC) and NZGIF. ARENA and CEFC have developed a successful coordination model that utilises the strengths of both parties. Together, they jointly manage the Clean Energy Innovation Fund (CEIF). The CEIF is a specialist investor that draws on CEFC finance and ARENA expertise to provide a coordinated investment strategy, targeting innovative businesses whose activities can lower Australia's emissions.

Through involving CEFC, ARENA could remove merchant risk as a key concern for projects. CEFC offered participants a debt product not available through commercial banks, which alleviated merchant risk, assuring ARENA and project sponsors that submitted projects could achieve Financial Close. CEFC's involvement also provided projects a better platform for having subsequent discussions with commercial banks regarding additional debt finance.

7. Role of NZGIF in International Carbon Markets

There have been suggestions from within the public sector that NZGIF could act as the entity responsible for both managing and implementing New Zealand's international carbon market (ICM) portfolio. Further to the strategic and performance components of this review, EY was also asked to comment on whether NZGIF would be able to have a role in developing and managing a portfolio of international carbon market opportunities.

This would see NZGIF responsible for a range of functions; some of which are aligned with NZGIF's current capabilities, whilst others are not. These functions and our assessment of NZGIF's ability to perform these functions based on current capabilities are outlined on Table 18. Our understanding of NZGIF's current capabilities were based on NZGIF's purpose and designated roles as an entity. An ICM portfolio and the required approach and the capabilities to manage it differs significantly from NZGIF's domestic mitigation investment portfolio, their approach and the capabilities they currently have. Adding an additional ICM mandate to NZGIF's role would be akin to establishing an entirely new entity rather than seeking to build on existing capabilities.

Providing the exact quantum of capital required for NZGIF to become responsible for New Zealand's ICM portfolio was not within the scope of this review. However, it was understood by stakeholders and EY that NZGIF would need to significantly increase its capital if that scenario were pursued. Because of the recapitalisation and mandate amendments that would be required, our understanding is that NZGIF taking on an ICM portfolio would not be beneficial to NZGIF at this time.

Table 18: Overview of required functions for ICM portfolio, and their alignment[81] to NZGIF's current capabilities

Function title	Alignment
Portfolio management function Responsibility for making decisions about the transactions that will deliver the portfolio objectives, within the rules and limits set for it	Partial alignment – NZGIF is responsible for making decisions about the investments that will deliver on its purpose and within its mandate, in direct alignment with the requirements for management of an ICM portfolio. We note however, that NZGIF does not have experience approving the details of criteria, methodologies, technical standards or guidelines for ICM projects which will be one of the roles within the portfolio management function.
Diplomacy Country-country agreements	No alignment – NZGIF's current role and experience is purely commercial and dealings are mainly with commercial investors. NZGIF has no diplomacy experience or capability as its investment focus is domestic.
Initial and ongoing due diligence of host country Paris Agreement compliance; market readiness; safeguards	Partial alignment – NZGIF is currently responsible for conducting due diligence over the commercial potential of any investment. This likely includes due diligence over the project operator/investee, for example including the likelihood that they will be able to deliver the project. Additionally, they are responsible for ongoing monitoring and management. NZGIF has no experience with ICMs including determining Paris Agreement Article 6 compliance or assessing market readiness and adequacy of safeguards.
Initial and ongoing due diligence of project/fund and methodologies used	Partial alignment – NZGIF is currently responsible for conducting due diligence over the commercial potential of any investment. This likely includes due diligence over the decarbonization outcomes and methods used to determine the reductions. Additionally, they are responsible for ongoing monitoring and management of any investments.
Development of project methodologies	No alignment – NZGIF is not currently involved in developing any carbon market project methods and only assesses investment opportunities.
Development of projects	Partial alignment – As well as direct investment, NZGIF also has a mandate to create products and programmes to attract additional flows of capital. This is similar in some respects to developing ICM projects.

[81] Alignment was assessed as "no alignment", "partial alignment" or "aligns"
No alignment = NZGIF's current capabilities are not aligned with the capabilities necessary to carry out the function
Partial alignment = There is some overlap with NZGIF's current capabilities and the capabilities necessary to carry out the function
Aligns = NZGIF has the current capabilities necessary to carry out the function

Function title	Alignment
Facilitate project financing	Aligns – Aligns with NZGIF's purpose.
Negotiation of commercial terms	Aligns – NZGIF is responsible for assessing and structuring investments including carrying out commercial negotiations and analysis.
Registries and reporting	Partial alignment – NZGIF is responsible for ongoing monitoring and management of investments which likely includes record keeping and reporting.

8. Recommendations

EY was engaged to deliver on the review with a two-fold focus: a Performance review, and a Strategic review:

1. Performance: The performance review aims to assess two key questions:
    a. NZGIF's financial and non-financial performance, and
    b. How effective NZGIF has been in fulfilling its purpose and objectives
2. The strategic review aims to answer two key questions:
    a. Whether NZGIF's purpose and objectives are still relevant, and
    b. Whether NZGIF is set up to succeed to meet its objectives in the context of its operating environment.

Below we provide our overall findings and recommendations for the Performance and Strategic reviews.

8.1 Summary of findings

8.1.1 Performance review

The mix of public policy and commercial objectives is a challenging landscape to operate within, however, NZGIF has established a portfolio of investments that closely aligns with their overall purpose. All areas assessed in the performance review were classified as close or broad alignment with the leading practices based on our understanding of market comparisons and experience.

- Close alignment means we noted high levels of evidence across the portfolio, subject to comments that are relatively low risk or minor in nature.
- Broad alignment means we noted partial evidence across the portfolio with more extensive comments and those that are higher risk or more substantial in nature.

Our suggestions and recommendations are summarised in Table 19 and take into account NZGIF's maturity, a consideration of both their time since inception and size, and are not intended to be conclusive judgements, but rather to provide a framework for discussions within NZGIF and between NZGIF and The Treasury. Further investigation, and implementation of our actions and considerations may be required.

8.1.2 Strategic review

Overall, we consider that the purpose and objectives of NZGIF are still relevant. Since its inception, multiple climate change actions and initiatives have emerged, both globally and domestically. Although a much wider range of public and private sector funding and financing initiatives now exist, there is still a clear and important role for the targeted direct investment activities of NZGIF. NZGIF is continuing to bridge the market gap it was created to address by creating new investment products, and by signalling to the market, through its decisions, the strengths of climate investment opportunities.

Our review found that NZGIF is well set up to succeed in the context of its operating environment. This is despite the substantial changes in public and private sector action on climate change which have occurred since NZGIF was established in 2019.

8.2 Recommendations

Table 19: Recommendations

Category	Recommendations	Relevant report section
	Action	
Investment Counterfactuals	For transparency, include a more precise definition of the counterfactual and the reason for market failure in the investment DD reports.	5.2.1
Standardised risk ratings	Commercial banks have stringent processes to establish the risk profile of borrowers. NZGIF should adopt the use standardised risk profile scale that is relative to a well know comparator such as the risk ratings produced by Standard & Poor's or Moody's.	5.2.2 and 5.3.2
Greater level of detail into investments commerciality	Greater disclosure of market price comparables in the investment DD reports. Where such comparables are difficult to obtain, this should be stated in the investment DD reports Costs relative to investment income (e.g., excluding interest earnt on cash and term deposits and other revenue) are high. NZGIF should clearly outline the expected costs to the organisation in executing and administering the investment. Provide more clarity on the returns from both debt and equity investments against agreed benchmarks.	5.2.2 and 5.3.2
Mark to market valuations	Undertake annual mark-to-market approach for valuing/pricing investments to provide greater clarity of performance on an annual basis.	5.2.2
Consistent investment performance measures	Adopt a consistent treatment of transactional and overhead costs across all investment DD reports and preferably be performance net of costs.	5.2.2
Performance against benchmark return	Begin disclosing NZGIF's performance against the benchmark return and, if not being met, clearly state the timeframe in which they expect to achieve the benchmark return. Gaps to this performance measure should also be disclosed and the reasons for it discussed	5.2.2
Rationale for investments in multiple parts of the capital stack	Where NZGIF is investing in multiple parts of the capital stack and/or different types of capital, NZGIF should clearly articulate the rationale in investment DD reports and an appropriate risk assessment/justification provided.	5.2.3
Disclosure of "market failure" rationale	Disclose detailed "market failure" rationale in case studies published to demonstrate market leadership	5.2.4
Risk function and "Risk Officer"	The function of "Risk" is not currently contained within a single role but rather is part of the portfolio of responsibility held by the Chief Operating Officer. Establish the position of "Risk Officer" to strengthen governance with reporting directly to the CEO or the Board of Directors.	5.3.1
Standardised DD reports	The way in which information is presented is closer to an investment memorandum that an investment bank would prepare to sell a transaction externally. We recommend developing a standardised "front sheet" for DD reports to clearly present key information. Importantly, the front sheet would highlight the internal risk rating that reflects the credit risk frameworks adopted by the major rating agencies.	5.3.2
Documenting decisions	The way in which investment approvals, including the investment DD report and decisions, are documented makes it difficult to know whether "the hard questions are being asked and answered". A more transparent approach to documenting the decisioning is suggested, possibly through an investment committee question and answer framework with documented minutes.	5.3.2
Increasing capitalisation	Consider an increase in NZGIF's capitalisation in order to continue to achieve its objectives and play a substantial role in decarbonising New Zealand.	6.1
Retain independence	Retain NZGIF's independence, as having the independent authority to meet its mandate is a key strength of NZGIF's operating model.	6.2

Category	Recommendations	Relevant report section
Coordination mechanisms	Investigate coordination mechanisms for NZGIF. Our analysis suggests that if/as NZGIF receives an increase in capital, coordination with other government activities will become increasingly important.	6.3
	Consider	
Emissions Estimation Methodology	Consider extending the Emissions Benefit Report to include all required assumptions to calculate the estimation for each investment.	5.2.1
Emissions Estimation Methodology	Consider publishing the rationale behind any notable differences in the emissions estimation methodology from approaches adopted by the Green Bank Network to improve transparency.	5.2.1
Understanding commercial performance based on FTE	Consider identifying how much time in each role is spent on Government policy and reporting, to assist NZGIF in better understanding their underlying commercial performance.	5.2.2
Establishment of benchmark	To allow more transparent reporting against this objective, NZGIF could consider outlining how the portfolio level benchmark return was established and the differing return expectations between equity and debt.	5.2.2
Estimation of average rate of return on equity investments	Consider making best estimation of likely exit date for equity investments and likely average rate of return at the time of exit in assessing the total expected rate of return.	5.2.2
Debt returns reference point	Consider disclosing debt returns with reference to a net interest margin rather than the absolute return.	5.2.2
Performance hurdles	If the Government agrees that NZGIF is more aligned with an investment bank, as opposed to a fund, then then investment banking performance hurdles could be considered, such as a greater focus on capital leverage through origination and sell down, revenue per employee and/or an efficiency ratio (revenue/expenses) and net profit.	5.2.2
Failure to meet crowding-in objectives	Within banks, clear expectations are set for crowding in objectives of each investment and where there is a failure to meet these, a process for escalation within the organisation should be considered – including to the Board of Directors.	5.2.3
Segregation of duties	The Board or a Board sub-committee acting as the Investment Committee weakens some of the governance aspects that typically happen within a financial institution. Consider a greater separation of the Board from investment decisions as it matures and establish a separate risk function.	5.3.1
Regular shareholder monitoring	The Board acting in an investment decision-making role (either directly or through sub-committee) increases the importance of regular shareholder monitoring. NZGIF and the Treasury should consider implementing quarterly analysis by The Treasury of financial performance as we consider this an important check and balance on the activities of NZGIF.	5.3.1
Detailed reporting of Board and Management	Consider outlining the Board and Management's responsibilities and skillset in more detail in their annual reporting for increased transparency to stakeholders.	5.4
Debt expertise	Consider strengthening the organisations debt expertise, through the appointment of persons experienced in direct, single credit, lending either at an origination and/or governance level, particularly in a New Zealand context.	5.4
Reducing number of specific restrictions	Cabinet and Treasury should consider reducing the number of specific restrictions that are placed on NZGIF and to rely more heavily on NZGIF's objectives as the guardrails for NZGIF outcomes.	6.2

In interpreting Table 19 we highlight the importance of considering many of the suggestions from the Performance review prior to those in the Strategic review, particularly the recapitalisation.

Appendix A Stakeholders engaged

Group name	Phase 1 and 2 Stakeholders
NZGIF	• Chair of Board • Chief Executive • Chief Investment Officer • Chief Operating Officer • Head of Communications and Government Relations
The Treasury	• Manager in the Performance and Investment Team • Senior Analyst and NZGIF relationship manager • Project lead during the establishment of NZGIF • Senior Analyst in the Climate Change Team • Principal Analyst in the Investments Team • Analyst in the Commercial and Institutional Performance Team
Ministry for the Environment	• Principal Advisor, Climate Change Funding and Financing Workstream and involved in NZGIF's Budget 21' recapitalisation bid
Shareholding Ministers	• Minister of Finance • Minister of Climate Change

Appendix B NZGIF's self-assessed performance

Investment to reduce emissions

In their SPE, NZGIF state that success for this objective is ultimately:

- Capital committed to enable New Zealand's decarbonisation
- Investing in infrastructure or services that support the decarbonisation of New Zealand

Table 20: Invest to reduce emissions – NZGIF reported performance against NZGIF measures[82]

Type	NZGIF Measure	NZGIF 2021/22 target	NZGIF 2021/22 actual (extracted / derived from NZGIF reporting)	NZGIF 2022/23 target
Qualitative	Total NZGIF capital committed to qualifying investments (cumulative) across multiple sectors	Up to $150 million	$104.5 million contractually committed to 30 June 2022 (cumulative)	$250 million to $300 million
	Number of investments made	Six to ten	Seven investments were executed, and two transactions were made on existing investments	N/A - removed
	Estimated lifetime emissions reductions (cumulative)	Estimated lifetime emissions reductions will be reported as investment transactions are executed.	Reported outside the SSP	N/A - removed
Quantitative	All investments are consistent with NZGIF's investment mandate	100%	100%	100%
	NZGIF provides case studies on our investments that describe expected emissions impacts	Information on expected carbon benefits of all investments is published	100%	Information on expected carbon benefits of all investments is published

[82] Corporate publications :: NZ Green Investment Finance (nzgif.co.nz) (Statement of Performance Expectations)

Invest on a commercial basis

In their SPE[83], NZGIF state that success for this objective is ultimately:

- Generating risk-adjusted returns from our investment portfolio
- The returns generated are in line with markets using established commercial valuation methodologies and assumptions

Table 21: Invest on a commercial basis – performance against NZGIF measures

Type	NZGIF Measure	NZGIF 2021/22 target	NZGIF 2021/22 actual	NZGIF 2022/23 target
Qualitative	Investments are priced in line with market conditions	100%	100%	100%
	Investments are priced using established commercial valuation methodologies and assumptions	100%	100%	100%
Quantitative	Return on total deployed NZGIF capital, net of overhead and transaction costs	2% p.a. over the NZ Government 5-year bond rate of 3.68%[84] p.a.	Weighted average interest on deployed debt capital was 5.89% p.a.	N/A – amended to split debt and equity descriptions (see rows below)
	Weighted average effective interest rate on debt facilities	N/A	N/A	2% p.a. over the NZ Government 5-year bond rate
	Internal rate of return on realised equity investments on a portfolio basis	N/A	N/A	

[83] Corporate publications :: NZ Green Investment Finance (nzgif.co.nz) (Statement of Performance Expectations)
[84] Reserve Bank of New Zealand – wholesale interest rates B2 daily

Crowd in private capital

In their SPE[85], NZGIF state that success for this objective is ultimately:

- The facilitation of greater amounts of private capital deployed into decarbonisation investments
- A higher ratio of third-party investment to NZGIF investment on a cumulative portfolio basis
- Investment opportunities are created, accelerated or enhanced for third parties

Table 22: Crowd in private capital – performance against NZGIF measures

Type	Measure	2021/22 target	2021/22 actual	2022/23 target
Qualitative	Investment opportunities are created, accelerated or enhanced for third parties	Case studies to be provided as applicable	Case studies provided for NZ Post and ESP	Case studies to be provided as applicable
Quantitative	Ratio of overall investment to NZGIF investment on a portfolio basis	Greater than 2020-21 baseline of 2.3:1	2.1:1 (did not meet)	N/A - removed
	Ratio of third party investment to NZGIF investment on a cumulative portfolio basis	N/A – This measure was introduced in the FY22/23 target	1:1	1.4:1
	Development of financial product and/ or programme	1	Solar product developed	N/A – removed
	Allocation of NZGIF capital to support product and/ or programme to attract private co-investment	Up to $50 million	$50 million NZGIF capital allocated to solar product	N/A - removed

[85] Corporate publications :: NZ Green Investment Finance (nzgif.co.nz) (Statement of Performance Expectations)

Show market leadership

In their SPE[86], NZGIF state that success for this objective is ultimately:

- NZGIF is an active market participant demonstrating market leadership across sectors
- Publishing market reports and sharing pertinent information to relevant sectors
- NZGIF's engagement activity grows our market, media and digital profile

Table 23: Show market leadership – performance against NZGIF measures

Type	Measure	2021/22 target	2021/22 actual	2022/23 target
Qualitative	NZGIF undertakes consistent activity to generate an appropriate market and digital presence	Growth against baseline	Appropriate presence generated - Measured by growth in social media activity, website traffic, global profile and digital reach	Growth against previous year
Quantitative	NZGIF expands activities into the waste and plastics sectors	Activity in new sectors integrated into NZGIF	Waste sector report (including plastics) commissioned; waste and plastics opportunities being actively sought and considered	N/A – removed
	NZGIF provides information on our investments in our annual report	At least two	Three provided	N/A - removed
	Publishing market reports, providing market information or other publications	At least two	Two	At least two

[86] Corporate publications :: NZ Green Investment Finance (nzgif.co.nz) (Statement of Performance Expectations)

Appendix C Alignment to Request for Proposal ("RFP")

This note directs the reader to the relevant section of the report for each item from the RFP scope that EY received from the Treasury. Please note that the direction of research and presentation of findings has evolved since the creation of the RFP, therefore EY has not included all research findings in this report and has only included findings that are relevant to the recommendations.

RFP Scope	Relevant section
Performance review	
The reviewer should form an opinion on how effective NZGIF has been in delivering against its objectives and purpose to accelerate and facilitate investment in New Zealand's low carbon future.	
Financial and non-financial performance to date against the mandated four key objectives. Effectiveness to date in comparison to international green bank peers, in the context of NZGIF's maturity.	Section 5.2 Our Assessment of NZGIF's Objectives 5.2.1 Invest to reduce emissions 5.2.2 Invest on a commercial basis 5.2.3 Crowd in private capital 5.2.4 Show market leadership
The reviewer should assess the effectiveness of NZGIF's strategy, objective, policies, and performance indicators to deliver on its purpose and objectives. This should include:	
Extent of alignment of the strategy, policies and performance indicators to purpose and objectives. The robustness of NZGIF's investment strategy and policy as an enabler to delivering on its objectives.	Section 5.2 Our Assessment of NZGIF's Objectives 5.2.1 Invest to reduce emissions 5.2.2 Invest on a commercial basis 5.2.3 Crowd in private capital 5.2.4 Show market leadership
Whether performance measures reported in its annual accountability documentation (including Statement of Performance Expectations and Annual Reports) adequately measures the effectiveness of NZGIF's performance.	Sections 5.2.1 to 5.2.4 under "Review of NZGIF's self-assessed performance" Appendix D NZGIF's self-assessed performance
Consider how the performance measures set out above compares with measures set by best practice.	Section 5.2 Our Assessment of NZGIF's and Mandated Objectives 5.2.1 Invest to reduce emissions 5.2.2 Invest on a commercial basis 5.2.3 Crowd in private capital 5.2.4 Show market leadership Section 5.3.2 Policies
Assess whether key policies, including governance frameworks, are in accordance with best practice.	Section 5.3.1 Governance
The reviewer should assess the skills and capabilities of NZGIF's Board and management given its purpose, institutional form, and the current market environment. This should include:	
The mix of requisite skills and capabilities of the Board, management, and operational and investment teams. Extent there are gaps in skills and capability of the Board, management, and operational and investment teams, and how this is managed.	Section 5.4The skills and capabilities of NZGIF's Board and Management
The reviewer should assess the processes and systems that NZGIF utilises to meet its objectives and to identify and manage risks, within its mandated risk appetite, including:	
Extent that policies, processes, and operational structures are fit for purpose.	Section 5.3.2 Policies
Assess whether key investment and operational processes are in accordance with best practice, including risk management frameworks.	Section 5.3.2 Policies
Assess institutional culture for identifying and managing financial and non-financial risk.	5.2.2 Invest on a commercial basis Section 5.3.1 Governance

RFP Scope	Relevant section
The reviewer should make general observations on the review;	
Noting the engagement and transparency of NZGIF's Board and management towards the review process.	Section 1.2 Our Approach
Noting that NZGIF is expected to repay the Crown-funded establishment and operating costs once it starts to demonstrate on-going profitability, the Reviewer should comment on the existing mechanism for the repayment of these costs.	Section 5.2.5 Other matters for consideration – repayment of establishment costs
Strategic review	
The reviewer should consider whether NZGIF's objectives and purpose are still relevant. This includes:	
Considering how NZGIF's objectives and purpose compares to its international green bank peers.	Section 5.1 Defining "leading practice"
How NZGIF aligns (or not) with New Zealand's current climate investment market context	Table 13: Key external factors since NZGIF's inception and Table 14: NZGIF's market position compared to other funding and financing channels. *Organisations established after NZGIF's inception.
The reviewer may consider whether NZGIF's institutional form as a Schedule 4A company provides the support required for NZGIF to fulfil its long-term purpose and objectives. Reviewers may consider:	
Institutional form in comparison with international green bank peers, but within the context of the New Zealand constitutional settings.	Section 3.1 NZGIF at inception 3.1 NZGIF at inception
Any impact the institutional form has on NZGIF's ability to meet its objectives.	Section 3.1 NZGIF at inception 3.1 NZGIF at inception
In the context of an evolving climate investment market, the Reviewer should assess whether NZGIF's target sectors for investments as set out in the Statement of Intent are still relevant and gives it flexibility to meet its objectives. This should include:	
The extent target sectors for investment impact on NZGIF's ability to meet its objectives.	Section 6.2 Independence
Whether sector focus for climate investments is consistent with the entity's purpose and objectives.	Section 6.2 Independence
The reviewer should consider whether the exclusions from the mandate hinder NZGIF's ability to pursue and achieve its strategic purpose and objectives, and whether relaxation of these restrictions would allow NZGIF to better achieve its purpose and objectives. This should include:	
Implied and explicit exclusions from the mandate, for example investing in adaptation and offshore investments (including to meet the Nationally Determined Contribution obligations under the Paris Agreement).	Section 6.2 Independence
How these exclusions compare with the objectives/exclusions from the mandates of international green banks.	Section 6.2 Independence
In the context of the New Zealand climate investment market and compared to its international green bank peers;	
Does NZGIF's capitalisation allow it to meet its objectives in the longer term?	Section 6.1 Capitalisation
The reviewer should consider the role NZGIF plays in the context of the New Zealand climate funding and financing strategy;	
What role does the entity play in relation to other key government players (e.g., EECA).	Section 6.3 Coordination
The reviewer should consider how NZGIF compares with other international examples of green investment banks across a number of dimensions	
The reviewer should consider how NZGIF compares with other international examples of green investment banks	Section 4 Peer comparison

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ED None

Ernst & Young ("we" or "EY") has been engaged by The Treasury - Te Tai Ōhanga ("you", "the Treasury" or the "Client") to undertake independent periodic review of New Zealand Green Investment Finance Limited ("NZGIF") (the "Services") in relation to the periodic review mandated by the Cabinet that needs to be undertaken every five years ("Purpose").

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