

ANU Below Zero Program

FINAL INTERNSHIP REPORT

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AUTHOR: SYED MUHAMMAD FAWWAD



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EXECUTIVE SUMMARY

As Australia's national university, ANU endeavours to foster innovation, engage the community, and provide leadership to organisations within Australia and globally.

In light of the imperative need for transformational change to mitigate global warming and prevent catastrophic climate change, The Australian National University (ANU) has announced the Below Zero Initiative which aims to transition the University from being a source of greenhouse gas (GHG) emissions to becoming a carbon sink.

The ANU Council has set ambitious greenhouse gas reduction targets to be achieved by specified timelines. By 2025, the University aims to achieve net-zero emissions. By 2030, the University aims to achieve below-zero emissions. Beyond 2030, the University aims to progressively reduce the accumulated emissions, starting with the emissions generated during the lifespan of the Below Zero Initiative.

Thirty-five per cent of ANU greenhouse gas emissions stem from the use of natural gas, hence the promising solution of electrifying the heating of the campus through the implementation of electrified district energy hubs has been found to be the most viable and strategic choice to rapidly decrease the emissions from the use of natural gas. Nevertheless, implementation of such a plan will require substantial capital investments posing a challenge to the Below Zero initiative. In response to the funding challenges presented, the University's Battery Storage and Grid Integration program (BSGIP) has identified five potential funding approaches: ANU-funded, Partnerships, Community funding, Energy Performance Contracts and Energy as a Service.

This report aims to establish an evaluation framework for potential funding partners, considering factors such as alignment with the University's values, sustainability goals, prior success in delivering similar projects, potential risks, stakeholder engagement, and resource compatibility.

By employing the evaluation framework, the University will be equipped to make an informed decision regarding the most suitable funding strategy and potential partners for the electrified district energy hubs. This will enable the university to advance its sustainability objectives while fostering partnerships aligned with its vision and priorities.



BACKGROUND

The urgent need to address the climate crisis by reducing greenhouse gas emissions has been widely acknowledged by nations including Australia through the Paris Agreement. In light of this goal, the Australian National University (ANU) being the National University of Australia has recognized its potential to play a significant role in the transition to a sustainable future. ANU aims to lead by example by making substantial impacts beyond reducing its own emissions, which has culminated in the University's' commitment to achieving below-zero carbon emissions by 2030.

To achieve its targets, the University engaged in extensive consultation with its community to solicit input on achieving its targets. A comprehensive set of recommendations were developed based on community engagement and presented to the ANU Senior Management Group and ANU Council in 2020. The Below Zero Strategy outlines two stages of priorities for emissions reduction, emphasizing the swift transition away from natural gas, followed by on-site energy generation.

Currently, ANU is in Stage 1 of its Below Zero Initiative, with a primary focus on rapidly transitioning away from natural gas through electrification. To accomplish this, the implementation of district energy hubs has been identified as the most suitable approach for electrifying the campus heating infrastructure.

The Battery Storage and Grid Integration program (BSGIP) conducted a thorough assessment of various funding options and recommended: ANU-funded, Partnerships, Community funding, and Energy Performance Contracts and Energy as a Service. However, the challenge lies in selecting the optimal funding partner that aligns with ANU's values, both short and long-term goals.



AIMS

The primary objective of the internship was to develop a robust and rigorous evaluation framework that facilitates a quantitative assessment of the diverse funding models available for the electrified district energy hubs at ANU. This evaluation framework will enable the University to effectively evaluate and compare the various potential funding partners. It will encompass critical factors, including the operational sustainability, the capacity and capability of potential partners, the inherent risks associated with partners and the potential to foster valuable teaching and research outcomes.

The secondary objective of this report is to curate a comprehensive and well-documented list of potential funding partners, accompanied by relevant background information encompassing their past projects and initiatives. This meticulously compiled list will serve as a valuable informational resource. The list will enable the University to engage in informed and productive informal discussions with the identified partners.

METHODOLOGY

The methodology employed in this project was carefully selected to ensure a rigorous and effective approach to the goals of the internship was employed. The chosen methods included desktop research and stakeholder engagement, the methods employed provided comprehensive insights and valuable input for the evaluation framework and the identification of potential funding partners.

The initial phase of the project involved extensive desktop research, which served as the foundation for understanding the diverse funding models employed by universities within and outside Australia for similar projects. This comprehensive review encompassed scholarly literature, industry reports, and relevant case studies. By analyzing these sources, a deep understanding of the theoretical frameworks of each funding model was gained. This desktop research effort resulted in the development of additional clarifying information on some of the unorthodox funding options, which have been included in Appendix 1. The purpose of this supplemental material was to identify the unique factors that should be taken into account when formulating the evaluation criteria and to better understand the intricacies involved with some of the non-conventional funding models.



Additionally, stakeholder engagement played a crucial role in the methodology. Through weekly meetings with relevant experts and individuals who possess valuable insights and expertise, such as the Project Manager of the Below Zero initiative, the Institute Manager of ANU Institute for Climate, Energy & Disaster Solutions, the head of the Battery Storage and Grid Integration Program, and members of the commercial advisory team, firsthand knowledge and feedback for the evaluation criteria were gained. These engagements provided an opportunity to discuss important factors to consider for funding partners, operational sustainability, capacity and capability of potential partners, associated risks, and potential teaching and research outcomes. Moreover, active stakeholder engagement played a crucial role in broadening the scope of the evaluation framework by incorporating a diverse range of perspectives and considerations that may not have been immediately apparent. The inclusive approach ensured that the evaluation process encompassed a comprehensive assessment of relevant factors, ultimately enhancing the robustness and effectiveness of the framework. Through stakeholder engagement, four key aspects (Appendix 2) of an appropriate funding option were identified, which formed the backbone of the evaluation criteria. Furthermore, regular working group meetings provided valuable opportunities to gather feedback and iterate on multiple versions of the evaluation criteria. This iterative process ensured that the final evaluation criteria not only met expectations but also provided a comprehensive framework to guide the selection of the most suitable funding option.

OUTCOMES

Case Studies:

A comprehensive set of nine case studies were developed (Appendix 3) to examine the funding strategies employed by various universities in emissions reduction and energy efficiency projects. These case studies served as an invaluable reference for the ANU Below Zero initiative, providing deep insights into the funding approaches adopted by institutions comparable to the Australian National University. By analysing the experiences of similar institutions, both positive and negative, in funding similar projects, the case studies offered a valuable opportunity to learn from their successes and challenges and helped identify necessary criteria to include in an evaluation framework.



Evaluation Framework:

A thorough evaluation framework was created, outlining the criteria and parameters used to assess the different funding models. This framework provides a structured approach for ANU to compare and evaluate the options available, considering factors such as operational sustainability, partner capacity and capability, associated risks, and potential teaching and research outcomes.

Parameter	Criteria	Rating Guideline
Operational Sustainability	Control of Energy Assets	Complete control and access to assets, energy systems and data by ANU
		Limited control and access to assets, energy systems and data by ANU
		No control and access to assets, energy systems and data by ANU
	Time to Ownership of assets by ANU	0 years
		0–15 years
		>15 years
	Ability to Comply to Contractual Obligations of the funding partner.	ANU can comply with obligations with limited / no extra resources
		ANU can comply with obligations by allocating significant additional resources
		ANU is unable to comply with obligations
	Complexity of Managing Partnerships	Management of 1 contract by ANU
Management of 2-3 contracts by ANU		
Management of >3 contracts by ANU		
Time to Reach Agreement	0-6 months	

		6-12 months
		12-18 months
Capability and Capacity	Technical Expertise / Capability	Demonstrates no prior experience in delivering a project of a similar size as outlined in the masterplan
		Demonstrates limited prior experience in delivering a project of a similar size as outlined in the masterplan
		Extensive demonstration of prior experience in delivering a project of a similar size as outlined in the masterplan
	Project Personnel	Insufficient Personnel Commitment
		Adequate Personnel Commitment
	Experience Working with Higher Education Sector	No prior experience in working with Higher Education Sector
Limited experience in working with Higher Education Sector		
Experience in working with Australian Universities		
Partnership risk	Robust Management, Business and Regulatory Framework	Weak Management, Business and Regulatory Frameworks
		Sound Management, Business and Regulatory Procedures
	Alignment with ANU's Core Principles and Goals	Weak Alignment with ANU's Core Principles and Goals
		Moderate Alignment with ANU's Core Principles and Goals
		Strong Alignment with ANU's Core Principles and Goals
Teaching and Research	Integration of Teaching and Research by the Model	No integration of teaching and research
		Limited integration of teaching and research



		Significant integration of teaching and research
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A separate table containing detailed definitions of each evaluation criterion was also developed (Appendix 4). This table provides an in-depth explanation of the criteria considered within the evaluation framework, these will be used to complement the table above when assigning the rating of a potential funding partner to the rating of each parameter.

Potential Funding Partners:

The table of potential funding partners is a comprehensive compilation that includes 27 organizations with prior experience in similar projects or have displayed interest in being involved in similar projects. These partners were carefully selected to represent a diverse range of funding models, ensuring that ANU can explore various avenues for financial support. The primary purpose of this table is to provide ANU with a valuable resource for identifying potential funders and initiating informal discussions.

Identifying organizations with prior involvement in similar projects, serves as a reference point for the University to assess the market's appetite for such projects and to gather information on the types of agreements and partnerships that have been successful in the past. These discussions can provide valuable insights into the expectations, requirements, and potential contributions of each funding partner. To ensure the confidentiality of private information, a condensed version of the table listing the identified partners is provided in Appendix 5.



VALUE OF INTERNSHIP PROJECT

The internship project has brought substantial value to the ANU Below Zero program. The comprehensive evaluation framework has enabled the comparison of a wide array of funding options in a quantifiable manner. Additionally, it will be crucial in convincing the ANU council about the merits of selecting a funding option as it will be based on sound evaluation criteria and quantitative reasoning. Incorporating the feedback from a range of stakeholders across the university ensures that the evaluation framework has taken a holistic view, increasing the likelihood that an appropriate funding partner is selected.

Furthermore, the table of potential partners has already proved its utility. The table has facilitated the initiation of informal discussions with both funding partners and some of the Universities from the case studies. This engagement serves as an invaluable opportunity to gain insights into the market's appetite for the project as well as a perspective into what a potential agreement structure could look like.

Additionally, the infusion of a student intern brought a fresh perspective, enthusiasm and willingness to learn to the team. Introducing unique perspectives that challenge conventional ideas would have fostered out-of-the-box thinking, which is essential for a project that is inherently distinct and demands innovative approaches.

FUTURE PROJECT DIRECTIONS

The project encountered some limitations that warrant consideration. Although extensive consultation with stakeholders from various departments across the University was conducted to ensure a comprehensive framework was developed, there remains the potential risk of overlooked parameters that should be considered when evaluating potential funding sources. Whilst, it is impossible to eliminate the possibility of overlooked parameters due to the inherent challenge of capturing the entirety of considerations within a finite framework, to mitigate this limitation a more extended project duration would allow for broader consultations, ensuring a more thorough and inclusive evaluation.

Additionally, the limited availability of published information employed by other universities posed constraints on the depth of analysis of their experience of funding similar projects. Expanding the project timeline and proactively reaching out to more universities would enhance the project's ability to gather valuable insights and foster more meaningful discussions.



A future project could centre around assessing the risk associated with potential funding partners of the ANU decarbonisation master plan. Which evaluates the risk associated with potential partners in more depth. Therefore, the project could involve a comprehensive analysis of various risk factors that could impact the successful implementation and operation of the ANU decarbonisation masterplan. The objectives of the project could include:

1. Risk Identification: Identify key risks that may arise when partnering with different funding partners. These risks could encompass reputational risks, financial risks, legal risks, regulatory risks, and external risks such as market fluctuations or policy changes.
2. Risk Assessment and Mitigation Strategies: Develop a framework for evaluating and assessing the identified risks. This framework would involve analysing the severity of each risk, its potential impact on project outcomes, and the likelihood of occurrence. Based on this assessment, recommend appropriate risk mitigation strategies that could include contractual safeguards and contingency plans



REFERENCES

United Nations. (2015). *The Paris Agreement*. Retrieved from United Nations Climate Change: https://unfccc.int/sites/default/files/english_paris_agreement.pdf



APPENDIX

Appendix 1

Sustainable finance frameworks

Definition

In the financing context, many institutions are choosing to develop a Sustainable Finance Framework. These frameworks provide a set of best practice principles and guidelines that institutions can follow to integrate environmental, social and governance (ESG) factors into their investment and financing decision-making processes. These frameworks aim to promote sustainable development by encouraging investments in environmentally friendly and socially responsible projects and reducing the risks associated with unsustainable practices. These frameworks are usually grounded in existing principles including the Loan Market Association's Green Loans Principles

The core components of the Green Loans Principles are:

1. Use of Proceeds: The framework outlines how the funds raised through green finance will be used to support sustainable projects as defined by the framework.
2. Process for Project Evaluation and Selection: The framework establishes a process for evaluating and selecting projects that align with sustainability goals, including criteria for measuring environmental and social impact.
3. Management of Proceeds: The framework ensures that the funds raised through green finance are managed in a transparent and accountable manner.
4. Reporting: The framework requires regular reporting on the progress and impact of sustainable projects financed through green finance, providing transparency to stakeholders and investors.

Green bonds

The following table evaluates green bonds as a debt financing mechanism relative to loans from asset banks

Pros	Cons
Access to a new pool of investors: Green bonds attract socially responsible. Potentially increasing the issuer's investor base and potentially lowering borrowing costs.	Higher Initial costs: The costs of issuing green bonds may be higher due to the additional verification and reporting requirements.
Enhanced reputation: Issuing green bonds can enhance the issuer's reputation as an environmentally responsible entity.	Limited flexibility: Green bonds require the issuer to use the proceeds for specific environmental projects, which can limit the issuer's flexibility to use the funds for other purposes.



Ensures positive impact on the environment.

Limited market: The market for green bonds is still relatively small, which may limit the issuer's ability to raise large amounts of capital

Given the relatively limited market and short existence of green bonds, it is difficult to generalize whether green bonds are more or less cost-effective than traditional debt financing, such as loans from asset banks. Therefore, a case-by-case analysis is required to evaluate the cost of green bonds, with a particular focus on the issuer's credit rating, issuance size, green bond type, and market conditions

Appendix 2

Any implementation / funding models should consider the following:

1. Emissions reduction

The funding model must allow the University to realise its strategic goals outlined in ANU 2025 and reduce carbon emissions as quickly as possible to meet the target of below zero emissions by 2030.

2. Ensuring long term (25+ years) financial sustainability

The funding model must minimise lifecycle costs for ANU, ensuring long-term financial sustainability by:

- a. The evaluation process must give full consideration to all financing options
- b. Ensuring certainty over on-going payments (limiting volatility)
- c. Minimising CAPEX and OPEX requirements
- d. Seeking to leverage ANU CAPEX commitments to facilitate other funding sources.

3. Ensuring that the implementation of the Decarbonisation Master Plan is effective for the full period of its intended lifetime (operational sustainability) (25+ years)

The funding model must facilitate effective and sustainable implementation and maintenance of the Master plan over its projected lifetime. This includes ensuring that capability and resourcing is appropriate to operationalise the master plan.

The contract must be able to be consistently maintained and reviewed to ensure all parties are meeting their obligations. The contract must be well designed to be very specific with little room for interpretation.

4. Ensuring that operations are connected to and leverage research and teaching excellence

The funding model must ensure that the implementation and continued operation of the Decarbonisation Master Plan facilitates research and teaching opportunities.



Appendix 3

Case Study: University of Iowa partnership with Engie for Energy Efficiency and Cost Savings through Energy-as-a-Service Funding Model:

In 2020, the University of Iowa entered a 50-year public-private partnership with energy firms ENGIE and Meridiam. ENGIE and Meridiam will operate the University of Iowa's utility system for 50 years in exchange for an up-front endowment paid (\$1.165 billion USD) by ENGIE and Meridiam that will be reinvested in the University of Iowa's strategic mission. Under the agreement, ENGIE invested in energy-efficient upgrades for campus buildings, including LED lighting, heating and cooling systems, and smart building controls. ENGIE will operate and maintain the energy systems and equipment, selling the energy produced to the university at a fixed rate. This eliminates the need for upfront capital investment from the university and allows them to focus on their core mission of education and research. ENGIE and Meridiam will receive an annual fee of \$35 million for providing the utility services for the length of the contract.

Note: there is an ongoing lawsuit between the consortium and the university of Iowa accusing University of Iowa of refusing to make payments

[\(https://www.infrastructureinvestor.com/meridiam-engie-take-1-2bn-ppp-to-court-alleging-breaches-in-obligations/\)](https://www.infrastructureinvestor.com/meridiam-engie-take-1-2bn-ppp-to-court-alleging-breaches-in-obligations/)

CASE STUDY: RMIT

RMIT delivered broad scale asset renewal across two campuses through a \$128 million energy performance contract, financed through the Victorian Greener Government Building Program. The Sustainable Urban Precincts Program included an embedded electrical network, thermal plant, LEDs, solar and building management systems across 77 buildings, delivered by Honeywell in partnership with Siemens.

The program has forecast energy savings of 239 million kwh over three years and 68 million litres of water annually, equating to emissions reduction of 39 per cent. The investment by Honeywell and Siemens will be repaid through operational savings over an eight-year period (to 2025).

The energy performance contract committed Siemens and Honeywell to achieving the energy efficiency targets proposed in the feasibility studies for the works – if not, the firms will be financially liable for the shortfall. By 2018 RMIT had achieved a 45.5 per cent reduction in emissions (from a 2007 baseline) through this program and other on-campus carbon-reduction initiatives. Their reliance on grid electricity was reduced by 50 percent through a combination of energy efficiency initiatives and self-generation.

As part of the overall RMIT program, \$4.8 million was allocated for leveraging academic outcomes, including six research projects, five learning and teaching projects and 10 PhD scholarships. Among these were investigations into the use of the data produced by the new building management systems and how it can be used to drive best practice in asset management. The data is also the primary means by which the success of the Siemens and Honeywell works will be measured during the eight-year measurement and verification period following installation works.



CASE STUDY: SolarShare

SolarShare is an incorporated entity that acts as a community investment vehicle. The Board and project team identified solar PV as the most popular and implementable renewable energy generation technology among the broader community for initial investment. The expected sum of returns from the solar farm is greater than the investment, which results in return on investment for community member. SolarShare is investigating with the ATO whether instead of paying dividends to investors on a yearly basis, they are able to pay a mixture of capital return and dividend. The capital return would result in SolarShare paying back, in increments, the cost of the shares, which would be reflected in the value of the shares.

CASE STUDY: Ohio State University's \$1 Billion Public-Private Partnership for Energy Infrastructure

Ohio State University has partnered with a consortium consisting of energy companies ENGIE and Axiom Infrastructure to create a 50-year public-private partnership aimed at reducing energy consumption by 25% within 10 years. The partnership has released \$1 billion and involves leasing energy infrastructure, such as electricity, natural gas, steam/hot water, chilled water, and geothermal facilities for 50 years.

The consortium will manage the assets and provide integration services for the university, with the university paying an annual operating fee for these services. As part of the partnership, the university has also received \$150 million in research funding to establish an Energy Innovation Centre.

This partnership will allow Ohio State University to reduce its energy consumption and improve sustainability efforts, while also providing funding for research

Case Study: Southern Methodist University – Siemens partnership

The Southern Methodist University in the USA has partnered with Siemens to implement integrated campus energy management following a successful security and controls upgrade and integration program. The University engaged Siemens in a strategic partnership to undertake campus energy infrastructure modernization, strategic energy planning and utility bill management, integrated energy supply and risk management, and campus operations and maintenance. The program aims to digitise the campus to drive a enhance energy and facilities management, and reduce the ongoing cost of operations.

Case Study: Harvard University Green Bonds

Harvard University has successfully used green bonds to finance and refinance a range of projects, including the newly-constructed Science and Engineering Complex, as well as the ongoing renewal of Adams House and renovation of Soldiers Field Park. The university's \$250 million bond offering is the first time an external firm has verified its compliance with the 2021 Green Bond Principles, a global framework that encourages environmental sustainability in debt capital markets. The sustainable measures for capital projects could include renewable energy, green equipment, energy-efficient transportation systems, and the usage of environmentally-friendly building materials. This financing aligns with Harvard's sustainability goals, including its Climate Action Plan, which aims to make campus operations fossil-fuel neutral by 2026 and fossil-fuel free by 2050. By using green



bonds, Harvard is setting an example of how educational institutions can achieve sustainability goals while also securing necessary funding.

Case Study: NUS Green Bonds

The National University of Singapore (NUS) has made a significant commitment towards its Sustainability and Climate Action Plan 2030 by launching a framework on sustainability-linked finance in April 2020. NUS' Green Finance Framework provides guidelines for green finance transactions such as green bonds and loans. The proceeds from these transactions are used to fund eligible projects with clear environmental benefits. The green projects identified in the framework are aligned to five focus areas, including green buildings or precincts, renewable energy and energy efficiency infrastructure, sustainable water and wastewater management, pollution prevention and control, and sustainable management of natural resources and land use.

To date, NUS has raised S\$600 million through its first and second green bond issuances in May 2020 and May 2021. The proceeds have been used to fund or re-finance green projects such as SDE4, Singapore's first new-build net-zero energy building, the newly-constructed E7 facility which bridges research between the Engineering and Medical fields, and the state-of-the-art Wet Science Building, as well as energy-related initiatives such as the campus-wide upgrading and consolidation of district cooling chillers and increasing the campus's renewable solar energy capacity. NUS' Green Finance Framework serves as a model for universities and institutions looking to invest in sustainable projects while promoting transparency and disclosure.

Case Study: University of the Sunshine Coast's Solar-Powered 'Water Battery' as an Energy-as-a-Service Funding Option

The University of the Sunshine Coast partnered with Veolia to build a solar-powered thermal energy storage tank and a rooftop solar panel system to power the campus's air conditioning systems. The system, called the 'water battery,' was activated in August 2019, saving more than 4,232 tonnes of CO₂ emissions in its first year.

Veolia designed, constructed, operated, and maintained the infrastructure as an energy-as-a-service initiative, selling the energy generated back to USC at a cheaper rate than grid electricity. The system has generated over three million kWh of solar electricity, representing more than 34% of the campus's total electricity.

USC is expected to save over \$100 million over the 25-year life of the project and reduce its carbon footprint by more than 100,000 tonnes of CO₂ emissions. Ownership of the infrastructure will transfer to USC after ten years.

This project showcases how energy-as-a-service can be used as a funding option for universities to implement sustainable energy solutions, achieve carbon neutrality, and reduce long-term energy costs.

Case Study: Monash University reinvestment of energy savings

In 2017, Monash University announced a \$135 million investment in energy efficiency and renewable energy measures by 2030. The program includes the installation of new technologies to reduce energy consumption and greenhouse gas emissions across the university's campuses, including upgrading its heating infrastructure.

The energy savings reinvestment program at Monash is designed to partially fund the program through the savings generated by energy efficiency measures. The university



estimates that the program will save \$15 million per year in energy costs. A portion of the savings generated by these measures will be reinvested into further energy efficiency and renewable energy projects. The investments will contribute to the installation of a 4 MW solar panels across its campuses. The installation of energy-efficient lighting and HVAC systems in buildings across the university's campuses.



Appendix 4

Phrase/ term	Description
Control of Energy Assets	The Control of Energy refers to the ability of ANU to <ul style="list-style-type: none"> • <u>Audit</u> carbon emissions, energy efficiency and issues of energy assets • <u>Manage operational issues</u> i.e., breakdowns. • <u>Choose service</u> providers to resolve urgent operational issues and maintenance of assets
Ability to Comply to Contractual Obligations of the partner	Contractual obligations may consist of: <ul style="list-style-type: none"> • Servicing payments of partners • Providing access to data (i.e., current/historical energy consumption data and information on existing energy agreements) • Compliance with green bond principles, third party review of bond credentials, adherence to security and disclosure requirements (In the case of green bonds)
Complexity of Partnerships	It is assumed that an increase in the number of contracts managed by ANU will increase the complexity of managing partnerships.
Time to Reach Agreement	"Time to reach an agreement" refers to the expected duration, in months, from receiving a tender proposal to signing a contractual agreement.
No prior experience in delivering a project of a similar size	The partner has not demonstrated any prior experience in delivering a project of a similar size as outlined in the masterplan. The lack of experience raises concerns about their ability to effectively manage and execute a project of this magnitude. Moreover, the partner may not possess the necessary technical expertise required for the decarbonisation masterplan.
Limited prior experience in delivering a project of a similar size	The potential partner has shown limited prior experience in delivering a project of a similar size as outlined in the masterplan. While they have some exposure to projects of comparable scale, there may be concerns regarding their level of technical expertise specific to the decarbonisation masterplan.
Extensive demonstration of prior experience in delivering a project of a similar size	The partner has provided extensive evidence of prior experience in successfully delivering projects of a similar size as outlined in the masterplan. They have a proven track record and have demonstrated technical expertise in implementing decarbonisation initiatives.
Insufficient Personnel Commitment	Insufficient Personnel Commitment refers to the partner assigning fewer personnel than the minimum requirement (INSERT MIN Personnel) needed for the successful implementation of the decarbonisation masterplan.
Adequate Personnel Commitment	Adequate Personnel Commitment refers to the partner assigning at least the minimum required number of personnel (INSERT MIN Personnel) for the successful implementation of the decarbonisation masterplan.
No prior experience in working with Higher Education Sector	No prior experience refers to potential funding partners, that have no experience in working with any higher education provider either in Australia or Internationally.
Limited experience in working with Higher Education Sector	Limited experience refers to potential funding partners, that have some experience in working with working with higher education providers but with non-Australian institutions.
Experience in working with Australian Universities	Experience in working with Australian Universities refers to potential funding partners, that have prior experience in working with working with higher education providers in Australia on similar projects/partnerships.
Weak Management, Business and Regulatory Frameworks	Partner lacks the necessary processes, systems, or resources to effectively manage the project
Sound Management, Business and Regulatory Procedures	Funding partner demonstrates a strong track record of effective project management and compliance with relevant regulations. The partner has the necessary systems, processes, and resources in place to ensure timely and high-quality delivery of the project. The partner has demonstrated a commitment to maintaining compliance throughout the project lifecycle.
ANU's Core Principles	The potential funding partners are expected to exhibit core principles that align with ANU's goals. These include: <ol style="list-style-type: none"> 1. Demonstrating support for the global response to climate change, including meeting responsibilities to the Asia-Pacific region and Indigenous communities in Australia. 2. Promoting research into practical, scientific climate solutions and providing research insights on climate-related issues for industry and government. 3. Incorporating climate change science, adaptation, mitigation, and sustainable development into their operations. 4. Showing a strong commitment to supporting the transition to a net-zero emissions economy and implementing relevant measures.

	Source: ANU academic board public statement on ANU research partnerships with companies to advance the transition to a net zero emissions world
Weak Alignment with ANU's Core Principles and Goals	A funding partner with weak alignment with ANU's core principles and goals may have limited understanding or commitment to ANU's values, sustainability goals, or other strategic priorities. The partner may have competing priorities or conflicting values that are not compatible with ANU's mission
Moderate Alignment with ANU's Core Principles and Goals	A funding partner with moderate alignment with ANU's core principles and goals shares some understanding and commitment to ANU's values, sustainability goals, or other strategic priorities. However, the partner may have areas where their priorities or values differ from ANU.
Strong Alignment with ANU's Core Principles and Goals	A funding partner with strong alignment with ANU's core principles and goals shares ANU's values, sustainability goals, or other strategic priorities. The partner is fully committed to supporting ANU in achieving its mission and is willing to collaborate closely with ANU to ensure the project is aligned with ANU's expectations.
No integration of teaching and research	<ul style="list-style-type: none"> • Potential for teaching and research opportunities to enhance the Master Plan are not considered. • There are no formal opportunities for students or researchers to participate in the project.
Limited integration of teaching and research:	<ul style="list-style-type: none"> • Presentations or seminars related to the Master Plan may be offered, but there is no significant involvement of students or researchers in the project itself. • There may be some teaching components integrated into the development, implementation, or maintenance of the Master Plan, but they are not a significant focus. • Partnerships or collaborations with academics or researchers exist, but they are not fully integrated into the project.
Significant integration of teaching and research	<ul style="list-style-type: none"> • Actively involves students and researchers in significant research projects related to the Master Plan, with the potential for publications or patents resulting from their work. • Teaching components are embedded throughout the development, implementation, and maintenance of the Master Plan, with a focus on providing meaningful learning experiences for students. • Academics and researchers are fully integrated into the project, with joint projects, shared resources, and ongoing collaboration to enhance the impact of the Master Plan on teaching and research.