

REII End of Program Evaluation

Final Evaluation Report

October 2025

Disclaimer

This report was prepared by Aegis Consulting Group in good faith exercising all due care and attention, but no representation or warranty, express or implied, is made as to the relevance, accuracy, completeness or fitness for purpose of this document in respect of any particular user's circumstances. Users of this document should satisfy themselves concerning its application to, and where necessary seek expert advice in respect of, their situation. The views expressed within are not necessarily the views of the NSW Government and may not represent government policy.

Contact

For more information about this report contact:

Vishal Beri

Managing Director

Aegis Consulting Group

T +61 2 9698 2290 E vberi@aegisconsultgroup.com

About Aegis Consulting Group

Aegis is an independent advisor to government, corporate and non-government organisations on:

- Public Policy
- Economics
- Government
- Strategy

Aegis was established in 2002 and has an international team of consultants in Australia and United Kingdom.

Contents

Abbreviations	4
1. Executive summary	5
2. Recommendations	12
3. Program overview	14
3.1 Context and background	14
3.2 Evaluation purpose and scope	17
4. Foundations	18
4.1 Program logic	18
4.2 Key evaluation questions	20
5. Methodology	21
5.1 Evaluation design and implementation	21
5.2 Sources of data	22
5.3 Data analysis method	26
5.4 Evaluative method	28
5.5 Limitations	31
6. Evidence for evaluation findings – process evaluation	33
6.1 KEQ 1	33
6.2 KEQ 2	50
6.3 KEQ 3	55
7. Evidence for evaluation findings – outcome evaluation	62
7.1 KEQ 4	62
7.2 KEQ 5	72
7.3 KEQ 6	73
Appendix 1 – Applicable rubrics from the 2023 MEP	74

List of tables

Table 1: CCF outcomes supported by the REII program	16
Table 2: Key evaluation questions	20
Table 3: Evaluation co-design process	21
Table 4: The type and volume of stakeholders engaged by the evaluation	23
Table 5: Stakeholder engagement methodology	24
Table 6: Methods used to assess emissions reduction potential	25
Table 7: Data analysis themes framing the qualitative assessment	26
Table 8: Data analysis method	27
Table 9: Evaluative method	28
Table 10: Performance standards guiding the evaluative method	29
Table 11: Potential limitations and how they were addressed	31
Table 12: Delivery and effectiveness of program logic activities and outputs	37
Table 13: Milestone completion	52
Table 14: Outputs and intermediate outcomes	58
Table 15: Potential emissions reductions from ITP Renewables assessments	65
Table 16: Potential emissions reductions from ARUP assessments	67
Table 17: Potential emissions reductions from projects taken forward after feasibility testing	69

List of figures

Figure 1: 2023 Program Logic	14
------------------------------	----

Table of Abbreviations

Abbreviation	Description
ACG	Aegis Consulting Group
ARENA	Australian Renewable Energy Agency
BESS	Battery Energy Storage System
CBA	Cost benefit analysis
CO ₂ -e	Carbon dioxide equivalent (a standard unit for measuring carbon footprints)
CCF	NSW Climate Change Fund
DCCEEW/Department	The NSW Department of Climate Change, Energy, the Environment and Water
DPIRD	The NSW Department of Primary Industries and Regional Development
GHG	Greenhouse gas
GIS	Geospatial Information Service
GWh	Gigawatt hours
ITP	ITP Renewables
KEQ	Key Evaluation Question
KPI	Key Performance Indicator
KNP	Kosciusko National Park
MEP	Monitoring and Evaluation Plan
OECC	Office of Energy and Climate Change (in NSW Treasury)
PSC	CCF Performance Sub-Committee
PDAS	NSW Government's Property Data and Analytic Services
PDNSW	Property and Development NSW
REI	Renewable energy infrastructure
REII	Renewable energy infrastructure investment
RGDC	Regional Growth NSW Development Corporation
WAMC	NSW Waste Management Corporation

1. Executive summary

1.1 About the program

This is an end of program process and outcomes evaluation of the Renewable Energy Infrastructure Investment (REII) program (the program) administered by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW). The REII was a pilot project funded by the NSW Government's Climate Change Fund (CCF) with an initial allocation of \$3.4M over the financial years 2020/21 and 2021/22. In 2023 the program was extended until June 2025 (without additional funding) to support its capacity to complete milestones.

The program was intended to equip NSW Government agencies with tools and resources to enable them to identify and pursue the adaptation of underutilised government land for renewable energy infrastructure (REI) by 2025. This enabling outcome was intended to support the broader goals of demonstrating that the NSW Government leads by example and boosting the capacity of agencies to achieve other objectives beyond 2025 including the NSW transition to net zero.

1.2 Evaluation methodology

In conjunction with the program extension in 2023, a Monitoring and Evaluation Plan (MEP), called the "*NSW Climate Change Fund Evaluation Plan: Renewable Energy Infrastructure Investment*", was completed by DCCEEW program staff and external consultants. Its development was informed by several documents including a Data Management and Collection Plan (DMAC). At this time, the original program logic was revised to reflect updated DCCEEW priorities.

The methodology applied in this evaluation has been co-designed by Aegis Consulting Group and the DCCEEW program and evaluation teams to be consistent with the 2023 MEP and answer the key evaluation questions (KEQs) in that MEP. To do so the evaluation gathered information via a detailed review of program literature, consultations with DCCEEW program staff, and consultations with landowning agencies nominated by DCCEEW which used the program outputs to pursue program outcomes. The use of program outputs by landowning agencies makes them consumers and beneficiaries of the program. The agencies consulted by the evaluation were Crown Lands, NSW Department of Primary Industries and Regional Development (DPIRD) and Property and Development NSW (PDNSW).

As required by DCCEEW, in addition to assessing the 2023 MEP KEQs using agreed indicators, the evaluation has also examined the program using the following themes - appropriateness, management (process), effectiveness, and efficiency. Based on this assessment the report makes six recommendations.

1.3 Program appropriateness

The evaluation has identified that the program is a public good because it promotes intergenerational welfare in two ways.

- It seeks to reduce future carbon emissions in line with the NSW net zero objectives; and
- It helps to unlock government land for private sector development in line with the government's economic growth agenda. This includes increasing information for the private sector about suitable government land for REI.

The program was not designed to address any specific economic failure in the REI or REII markets. However, early consultations with stakeholders during program design identified that a data driven systemised way of assessing the suitability of government land for REI would be helpful for investment opportunity planning within government and the REII community.

1.4 Program management (process) and technical efficiency

Delivery of foundational activities and outputs

The program has delivered all the intended foundational activities and the following three of four intended outputs.

- *It has created a unique and innovative knowledge-based data set and tool to apply that knowledge.* This is the Geospatial Information Service (GIS) tool developed by DCCEEW and Energy Co which applied a comprehensive and sophisticated set of twenty multicriteria analyses to shortlist land for REII feasibility assessment.
- *It has created a procurement strategy for REI on government land intended to be used by landowning agencies taking REI to market.* This was developed with the assistance of consultants Price Waterhouse Coopers. However, program literature and stakeholders have been unable to clarify whether and how this strategy informed government agency Expression of Interests/ Request for Proposals (EOI/RFPs) for REI projects.
- *EOI/RFP templates for use by government agencies when procuring REI projects.* Program literature does not contain any recorded draft/final templates which DCCEEW prepared. However, both Crown Lands and PDNSW indicated they utilised RFP documentation prepared under the program to develop their own 'bespoke' RFP documents.

One intended output that has not been fully delivered is:

- *Revenue models for sharing the benefits of REI projects between DCCEEW and landowning agencies and other relevant parties.* DCCEEW program staff indicated there were mixed views amongst the participating agencies about sharing REI project revenue with DCCEEW to support or extend the REII program. This did not hinder the effectiveness of the program to deliver its intermediate outcomes.

Program design and governance

Landowning agencies participating in the program, particularly Crown Lands, suggest that:

- The overall scope for the program was narrowed by the NSW government surplus asset divestment program led by the Public Asset Utilisation Taskforce five years prior to the program.
- Three issues constrained the effectiveness of program implementation, especially at an early stage. These were:
 - A general lack of clarity within government about the policy framework informing the program including the definition of surplus and underutilised land.
 - A lack of program co-design with them prior to the GIS tool development, which hindered their initial understanding of program scope. DCCEEW considers that it did consult with Crown lands on the GIS tool development.
 - There were no program guidelines for half the program term explaining its objectives and scope. This included a lack of clarity around whether underutilised land should be sold or leased to REI developers.

Other key constraints affecting the program identified by stakeholders and program literature include:

- The program was not considered under the Government's Strategic Land and Property Framework (SLPF) which governs use and divestment of surplus agency lands. This denied the program a whole of government mandate when seeking agency participation.
- The DCCEEW senior executive took a light touch approach to program governance, which meant that the program team at officer, manager and director level found it difficult to resolve resourcing constraints affecting the speed and scale of program delivery, and limitations obtaining collaboration from other agencies. The program team relied heavily on external consultants to address resourcing constraints.

Program literature does not demonstrate that the CCF committees overseeing the program interrogated or directed its implementation in any significant way. The program was reported in the CCF annual reports in 2021-22, 2022-23 and 2023-24.

The DCCEEW SPACE system governs reporting for internally funded programs. Literature in that portal and consultation with DCCEEW demonstrates that:

- Program delivery was consistent with planned implementation.
- Program budgeting was consistent with planned spending.
- Program managers had confidence in the currency and effectiveness of the risk management system throughout the program. Based on the SPACE reports provided to the evaluation for the last two years of the program, risks were reported monthly in the DCCEEW SPACE system, but not against an updated and centralised risk management plan.

Technical efficiency

Given the low program cost, the program outputs displayed characteristics supporting technical efficiency.

- *Uniqueness*. The program was innovative, undertook new research and produced new REII data sets, knowledge, tools, and pathways for agencies.
- *Ambition*. The program intended to contribute to the NSW Government's net zero objectives.
- *Good responses*. The program is highly valued by the consumers and beneficiaries of its outputs (landowning agencies) and they support its continuation.

1.5 Program effectiveness and allocative efficiency

The NSW Treasury Guidelines (TPG 22-22) indicate that program effectiveness is judged on the “extent to which an initiative achieves its objectives (usually related to outcomes)”. When assessing program effectiveness in the way envisaged by these guidelines, the evaluation has been unable to assess the following future issues beyond 2025 because of a lack of program data and information from participating agencies. The 2023 MEP KEQs also do not cover them.

- *Broader goals* – (a) NSW achieves net zero by 2050; and (b) NSW has a decarbonised grid.
- *End of program outcomes 2025-2035* (outcomes the program is seeking to influence) – (a) agencies increase their revenue and lower their management costs associated with contaminated and unproductive sites; (b) agencies transition to net zero; and (c) there is a pipeline of renewable energy projects on government owned land.

Given this, the evaluation has focused on assessing the following program intentions by 2025 for which there is evidence:

- *Intermediate outcomes 2022-2025* (outcomes the program is seeking to influence) – (a) agencies commission REII projects; and (b) agencies have the information and resources they need to activate contaminated or non-productive sites for REI.
- *Program foundational activities, outputs and influencing activities*. The evaluation has regarded these as proxy for the effectiveness because their delivery assists agencies build capacity to achieve the future broader goals and end of program outcomes 2025-2035.

The evaluation has assessed the program's allocative efficiency on the basis of the how its consumers (landowning agencies) value the program.

The evaluation's key findings about effectiveness and allocative efficiency are as follows:

- **Overall, the program has contributed to the intended outcome in Climate Change Fund (CCF) outcomes hierarchy for which it was funded.** This is *the New South Wales Government leads by example* in the pursuit of its Net Zero Plan. This has occurred despite the identified constraints affecting program management.

- **Volume of participating NSW government agencies.** The evaluation could not identify any definitive single program document holistically recording all the agencies engaged by DCCEEW throughout the program and the results of that engagement. However, various program literature suggests that between December 2021 and February 2022 nine agencies responded to DCCEEW's request to identify potentially suitable land for REI. Of these, four agencies were fully enabled by program activities and outputs to undertake REI feasibility studies and pursue market approaches for REI projects. These agencies are Crown Lands, DPIRD, PDNSW and National Parks and Wildlife Service (NPWS). According to the NSW Property and Data Analytics Service (PDAS) report commissioned by DCCEEW in April 2020, Crown Lands and DPIRD are two of the top five landowning agencies in NSW, with Crown Lands owning 97 percent. The other three top landowning agencies are Office of Environment and Heritage, Forestry Corporation, and Water NSW. Program documentation and consultation with DCCEEW program staff did not offer the evaluation any clarity on whether and how these other three top landowning agencies were engaged, and why they did not fully use the program activities and outputs to pursue the program outcomes. DCCEEW did not nominate these three agencies for consultation by the evaluation.

- **The program foundational activities and outputs have successfully influenced program consumers (landowning agencies) to take actions to achieve program intermediate outcomes.** Program activities and outputs:
 - *Enabled Crown Lands, DPIRD, PDNSW and NPWS to advance REI projects (solar photovoltaic and/or battery energy storage systems).* The program:
 - Funded the feasibility assessment of 73 shortlisted properties. Of these 49 are owned by these four agencies across NSW and 24 by are privately owned on land leased from NPWS in the Kosciuszko National Park (KNP).
 - Identified via the feasibility assessment process that 52 properties are feasible for REI. Of these, 31 are owned by these four agencies across NSW and 21 by private owners in KNP.
 - Facilitated the progression of 2 properties identified as feasible for REI to market tender. A REI proponent was selected for a Crown Lands property at Balranald, but that did not proceed because the land was converted from leasehold to freehold under Crown Land's Western Land Leases. A REI proponent was awarded a lease in 2024 to develop and operate a battery energy storage system (BESS) facility at the PDNSW (Waste Asset Management Corporation) owned waste facility at Belrose.
 - Facilitated the joint DPIRD/DCCEEW application for funding from the Australian Renewable Energy Agency (ARENA) for microgrid development projects at 3 properties identified as REI feasible.

 - *Enabled the identification of potential carbon emission reductions from REI feasible properties.* Of the 52 properties identified as REI feasible under the program's funded feasibility assessment process, estimated emissions savings data is available for 50. The estimates were prepared by the consultants engaged by the program to undertake feasibility assessments (ITP Renewables and ARUP), and the evaluation has relied on this data. The consultants used different methodologies which prevent the evaluation from calculating a single sum of emissions savings based on the cumulative addition of data. The

methodologies apply a range of variables (solar PV; solar PV + BESS; short and long investment return periods; 80-50 percent generation self-consumption) to identify base case and optimal scenarios. The respective results are as follows:

- For the 27 Crown Lands and DPIRD properties assessed by ITP Renewables as feasible for REI, the collective estimated emissions savings range from 5,332 to 14,557 tCO₂-e/year.
- For the 23 NPWS and private properties in KNP assessed by ARUP as feasible for REI the collective estimated emissions savings range from 665 to 716 tCO₂-e/year.

Amongst the 27 Crown Lands and DPIRD properties, 3 DPIRD projects are currently being taken forward from the feasibility stage under a funding application to ARENA. The collective potential emissions savings for these projects range from 2,994 to 10,314 tCO₂-e/year.

The evaluation was unable to compare these estimated emissions savings to a program base case linked to the program logic because DCCEEW did not include a base case in the program design.

- *Enabled other benefits for DCCEEW and agencies.* This includes enabling beneficial networking across government and the private sector, encouraging innovation by agencies and encouraging renewable energy policy ambition. For example, Crown Lands advises that the program persuaded the Crown Lands executive to pursue REII opportunities on Crown land, and PDNSW advises that the program helped to address its internal barriers to enable projects to proceed more quickly, particularly through the provision of funding for feasibility and grid connection assessments. Agencies consider the program provided needed knowledge and advice to fill gaps in agency skills and capacity around renewable energy investment, including growing in-house agency skills and capacity to pursue market opportunities for renewable energy investment.
- **The program has given agencies a set of legacy tools to identify future REII opportunities. Significant opportunities remain for REII, primarily on surplus land administered by Crown Lands.** The program identified that 97 percent of suitable land is Crown Lands administered. Crown Lands has advised that the program was a catalyst for its development of a 50-year pipeline of potential future renewable energy projects, including very large wind farms in the Western Division with as many as 500 to 700 turbines, and may be able to progress as many as 5 market-based tenders per annum. Crown Lands has also advised it is working with Local Land Services (LLS) to identify LLS lands which might also be suitable for renewable energy investment. In addition, Crown Lands wishes to pursue renewable energy investment opportunities on Crown Land subject to Native Title and/or Aboriginal land claims through negotiated Aboriginal Land Agreements.
- **The program has created support for the continuation and scaling of the program amongst agencies. This support is strong evidence of the program's allocative efficiency.** Based on its positive experience with the program, Crown Lands is particularly supportive of a dedicated unit within DCCEEW to provide

expert advice to agencies wishing to pursue renewable energy investment and innovation including the roll out of BESS on smaller land parcels. Crown Lands considers that this resource would significantly accelerate the rate at which its projects could be pursued, thereby assisting the delivery of emission savings, revenue benefits and broader regional economic outcomes. The strong support agencies have for the program is a key indicator of its allocative efficiency. One option for DCCEEW is to provide this resource by augmenting an existing team in DCCEEW's Sustainable Government team. In addition, DCCEEW could bolster the renewable energy investment governance framework commencing by establishing a cross agency working group (including Energy Co) which could report to the group of Executive Directors reporting through to the Deputy Secretary-level Climate Change Network.

- **The program experienced some unanticipated benefits.** For example, it enabled landowning government agencies to newly identify the potential energy efficiency and emissions reduction benefits of installing BESS with or without renewable energy generation solutions. New knowledge about BESS has inspired some agencies (e.g. DPIRD) to further develop BESS projects to meet emission reduction targets.
- **The program experienced some unanticipated opportunity costs.** An opportunity cost was that the program increased potential future revenue streams for holders of long-term Crown Land leases in the Western Division and motivated these leaseholders to convert their leasehold titles to freehold titles to fully capture these revenue streams. This hindered the delivery of renewable energy projects under the program. DCCEEW should note this cost for future program design.

1.6 Other findings

The evaluation understands that DCCEEW's SPACE system governs reporting requirements for internally funded programs. The SPACE reporting requirements did not adequately support the capacity of the evaluation to assess the program, but the evaluation acknowledges DCCEEW advice that SPACE is not intended to do so. This is because information in SPACE does not contain any final program report (a single source of truth) which definitely and systematically records and explains all the program history, facts and stakeholder engagement, and how issues, outputs and outcomes were managed to support delivery of the program logic. This kind of document is usually critical for an evaluation process as it provides the evaluation with a base case in the form of a verified and agreed set of recorded facts.

As a result, the evaluation was required to develop a set of facts from almost one hundred program documents in various forms including being final, draft, undated and unsigned. The capacity of the former and current members of the program team to fully verify this record prepared by the evaluation was hindered by the absence of a universally and commonly agreed view among them about key program facts, precisely because a final report does not exist. Accordingly the evaluation was unable to definitively understand some key issues such as the total volume of agencies engaged by the program, the outcomes of that engagement, and the precise ways in which the program deployed key input data to shape implementation. That key input data was contained in work commissioned by the program from the NSW Property Data and Analytic Services and other consultants.

2. Recommendations

Based on its findings the evaluation has made the following recommendations.

REI program scaling. These recommendations relate to KEQs 4-6.

Recommendation 1: Given the nature and quality of the program's outputs and ongoing support for the program amongst agencies, particularly Crown Lands, DCCEE should continue and scale the program. Specifically:

- (a) This may need to evolve beyond the current GIS tool and other program artefacts to focus on the provision of expert advice to support the facilitation of private sector renewable energy investment on government land.
- (b) This should be supported by a whole of government governance framework comprising a senior officer-level cross agency REI working group which would report to the group of Executive Directors reporting to the Deputy Secretary-level Climate Change Network. This framework could then assist in reporting on progress on REI on government land pursuant to the Net Zero Government Operations Policy.

Recommendation 2: If DCCEE chooses to continue and scale the program it should.

- (a) Ensure that aims and methods of prioritising land for REI are approved under the Strategic Land and Property Framework (SLPF). This would enable a whole of government approach and senior executive level collaboration for REI priorities on surplus land.
- (b) Engage with Property Data and Analytic Services (PDAS) on the future of the GIS tool, including consideration of whether its functionality might be better delivered through Land IQ or other GIS systems in the future.
- (c) Identify the extent to which revenue sharing would be necessary to fund a continuation or expansion of the program. It might be the case that funds would be made available from another source, say CCF, in which case revenue sharing may not be required. This is important to explore because evidence from the evaluation suggests there is limited appetite for revenue sharing amongst landowning agencies.
- (d) Co-design the program with program consumers (landowning agencies) to avoid the opportunity costs identified in the evaluation. This is the risk that REI procurement pursued by government agencies encourages leaseholders of government land to convert to freehold.
- (e) Co-design the program with program consumers (landowning agencies) to capture the unintended benefits identified in the evaluation. These are the opportunities to facilitate standalone battery energy storage systems.
- (f) Continue to make the REI toolkit available to agencies and ensure that EOI/RFP templates are tailored to meet individual agency requirements.

DCCEEW wide systems improvements to support program design and evaluation. These recommendations relate to KEQs 1-3.

Recommendation 3: Program co-design. DCCEEW should ensure that future program design incorporates as first step a full understanding of program scope within the policy context and in response to the needs of program consumers/beneficiaries. This should occur via an independently facilitated co-design process so that appropriate and fully inclusive program guidelines can be developed.

Recommendation 4: Governance of innovative programs. DCCEEW should ensure that when it funds ambitious/innovative programs, those programs receive an appropriate level of senior executive level engagement and oversight and are adequately resourced to respond to implementation demands, complexity and shifting contexts. To support this DCCEEW should develop guidelines for the definition, initiation and governance of programs intended to achieve innovation. DCCEEW should seek independent expert advice on this because there are numerous types of innovation and DCCEEW will require assistance defining the innovative scope of its programs.

Recommendation 5: Reporting requirements for internally funded programs. DCCEEW should consider improving its SPACE reporting requirements for internally funded programs to ensure that program evaluations are appropriately supported with holistically reported whole of program information. DCCEEW should:

- (a) Review whether the reporting requirements in the SPACE system are adequate for supporting the evaluation of internally funded programs.
- (b) Ensure that the reporting requirements in the SPACE system to support evaluations of internally funded programs mirror the reporting requirements applying to programs where DCCEEW is administering grants to external parties, such as other government agencies and non-government organisations.
- (c) Ensure that reporting requirements in the SPACE system to support evaluations of internally funded programs include as a minimum a final program report which serves as a single source of truth that definitely and systematically records and explains all the program history, facts, and stakeholder engagement and how issues, outputs and outcomes were managed to support delivery of the program logic.

Recommendation 6. Base case for programs intended to facilitate emissions reductions. DCCEEW should ensure that its programs with objectives and outcomes intended to contribute to emissions reductions include a base case of targeted emissions savings in program design. This would assist program evaluations to quantify the extent to which programs have achieved their emission reduction goals, and support DCCEEW's comparison of programs when determining the most efficient allocation of program funding.

3. Program overview

3.1 Context and background

3.1.1 Program objectives, funding and timeframe

The Renewable Energy Infrastructure Investment (REII) program (the program) is administered by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW). When the program was first created it was administered by the Office of Energy and Climate Change (OECC) and later it came within the control of DCCEEW. For the purposes of this report the term DCCEEW is used to refer to all program management actions taken by OECC and/or DCCEEW.

The program was first developed in 2019 to encourage renewable energy investment on underutilised NSW Government owned land. The original program logic included outputs and outcomes to support these four objectives:

- Meet priority 4 of the NSW Government's Net Zero Plan Stage 1: 2020-2030 to '*Ensure the NSW Government leads by example*'.
- Unlock economic benefits from underutilised government property land assets catalysing agencies to develop sites with renewable energy infrastructure.
- Secure additional energy supply and reduce energy costs for government, households and businesses by investing in renewable energy infrastructure.
- Reduce carbon emissions from energy generation by investing in renewable energy infrastructure.

In 2020, the NSW Government's Climate Change Fund (CCF) allocated \$3.4M to implement the program over the financial years 2020/21 and 2021/22. A program monitoring and evaluation plan (MEP) was not developed at this time. However, the original program delivery schedule approved by the Net Zero Steering Committee in March 2021 envisaged that:

- The program outputs (standardised information and tools to support other landowning NSW Government agencies to pursue renewable energy projects) would be achieved by DCCEEW in FY 2022; and
- Other landowning NSW Government agencies would use and apply the program outputs to achieve outcomes (renewable energy projects) by 2025.

In mid-2023 the program was extended until FY 2024/25 to:

- Support other NSW Government landowning agencies achieve intended program outcomes
- Investigate further REII opportunities with a wider range of agencies and revenue sharing opportunities arising from REII; and
- Enable the program evaluation.

In conjunction with this program extension, a MEP was developed, and the original program logic was updated. Specifically, the outputs and outcomes in the original program logic were revised to incorporate the lessons learned from program implementation between 2020 and 2022 including program limitations, program capacities, and the realistic differences between what the program could control and influence (2023 MEP).

No further funding beyond the original \$3.4M envelope was provided in conjunction with the 2023 program extension and revised program logic. However, it was agreed that \$0.46M of accrued program funds would be carried forward to support the extension.

3.1.2 Program assumptions

At the time of its inception and during its delivery the program was viewed by DCCEEW as a **pilot** program designed to test the potential to harness underutilised government owned land for renewable energy projects. This was informed by a view that:

- The NSW Government owned approximately 190,000 hectares of underutilised land. This land was potentially suitable for renewable energy infrastructure because it was contaminated or considered otherwise non-productive.
- Enabling REII on this land would support the NSW Government's net zero transition.
- Successful REII on this land could activate new income streams and/or reduce land management costs for agencies.

3.1.3 Program relationship with the Climate Change Fund

The CCF was established in 2007 by the NSW Government to address the impacts of climate change, encourage energy and water saving activities and increase public awareness and acceptance of climate change. It exists under Part 6A of the Energy and Utilities Administration Act 1987 and is administered by DCCEEW. Programs funded under the CCF are intended to deliver energy savings and reduce emissions; deliver reliable, clean and affordable energy; and increase resilience to a changing climate. Programs funded by the CCF are required to support appropriate CCF outcomes and choose key evaluation questions which enable evaluations to assess whether and how programs have contributed to the intended CCF outcomes.

Table 1 illustrates the CCF outcomes to which the REII program is intended to contribute.

Table 1: CCF outcomes supported by the REII program.

Net zero				
State outcome	Connecting communities to resilient and sustainable energy and local environments			
Purposes of the CCF To provide funding to...	Reduce greenhouse gas emissions and the impacts of climate change associated with water and energy activities	Encourage water and energy savings and the recycling of water	Reduce the demand for water and energy, including addressing peak demand for energy	
	Stimulate investment in innovative water and energy saving measures	Increase public awareness and acceptance of the importance of climate change, and water and energy saving measures	Contributions made by the State for the purposes of national energy regulation	
Climate Change Policy Framework objectives	Achieve net zero emissions by 2050		New South Wales is more resilient to a changing climate	
Net Zero Plan priorities	There is uptake of proven emissions reduction technologies	Consumers and businesses are empowered to make sustainable choices	The next wave of emissions reduction innovations are invested in	New South Wales Government leads by example
REII Program outcomes	Agencies increase revenue and lower their management costs associated with contaminated or non-productive sites	Agencies transition to net zero		There is a pipeline of renewable energy infrastructure projects on government-owned land

The REII program was originally intended to contribute towards the CCF outcomes marked in blue.

Following agreement between DCCEEW and the appointed evaluator (Aegis Consulting Group), the evaluation has focussed on assessing whether the program has contributed to one of the intended outcomes - *New South Wales Government leads by example*. This is because in 2023, the program logic was updated to focus on this CCF outcome and accordingly there is no program data available to assess the other originally identified CCF outcomes.

3.2 Evaluation purpose and scope

This is an end of program evaluation. The program has not been subject to a mid-term evaluation as the original program was considered by DCCEEW to be a pilot project originally spanning only two financial years. When the program was extended in 2023 an MEP was prepared, the original program logic was revised, and the framework for an end of program evaluation was prepared. Accordingly, DCCEEW has asked Aegis Consulting Group (ACG) to base the evaluation on the 2023 MEP and program logic.

The 2023 MEP states that the purpose of the end of term evaluation is to understand:

- How effective the toolkit and support provided to agencies was in helping them to overcome the barriers to developing renewable energy infrastructure projects on their contaminated or non-productive sites.
- Whether the artifacts produced by the program (the toolkit) will be sufficient to sustain REII by agencies following its conclusion or whether the additional support provided by the program would be necessary for further projects to be progressed.

The 2023 MEP has provided the primary guidance for this evaluation because:

- The MEP provides the clear purpose of the evaluation and program logic which DCCEEW has agreed to.
- The MEP includes the key evaluation questions (KEQs) which DCCEEW has agreed to.
- The MEP includes some performance standards (rubrics) for assessing KEQs which DCCEEW has agreed to.
- DCCEEW applied the MEP scope and KEQs when procuring the services of an evaluation supplier.

It should be noted that where appropriate and with the agreement of DCCEEW, the appointed evaluator (Aegis Consulting Group) has updated some rubrics for assessing KEQs. This is particularly where the 2023 MEP did not contain rubrics for some KEQs. It should also be noted that the 2023 MEP and DCCEEW's procurement for this evaluation did not include KEQs for two of the program's original stated objectives.

- Unlock economic benefits from underutilised government property land assets catalysing agencies to develop sites with renewable energy infrastructure.
- Secure additional energy supply and reduce energy costs for government, households and businesses by investing in renewable energy infrastructure.

Following its selection, ACG brought this to the attention of DCCEEW, and DCCEEW confirmed that the evaluation did not need to assess the achievement of these two objectives. Accordingly, the evaluation has focussed on assessing the achievement of the other two original program objectives consistent with all the KEQs in the 2023 MEP:

- Meet priority 4 of the NSW Government's Net Zero Plan Stage 1: 2020-2030 to '*Ensure the NSW Government leads by example*'.
- Reduce carbon emissions from energy generation by investing in renewable energy infrastructure.

4. Foundations

4.1 Program logic

4.1.1 Assumptions informing the 2023 program logic

The 2023 program logic is based on some key assumptions applied by DCCEEW. These are stated in the 2023 MEP as follows:

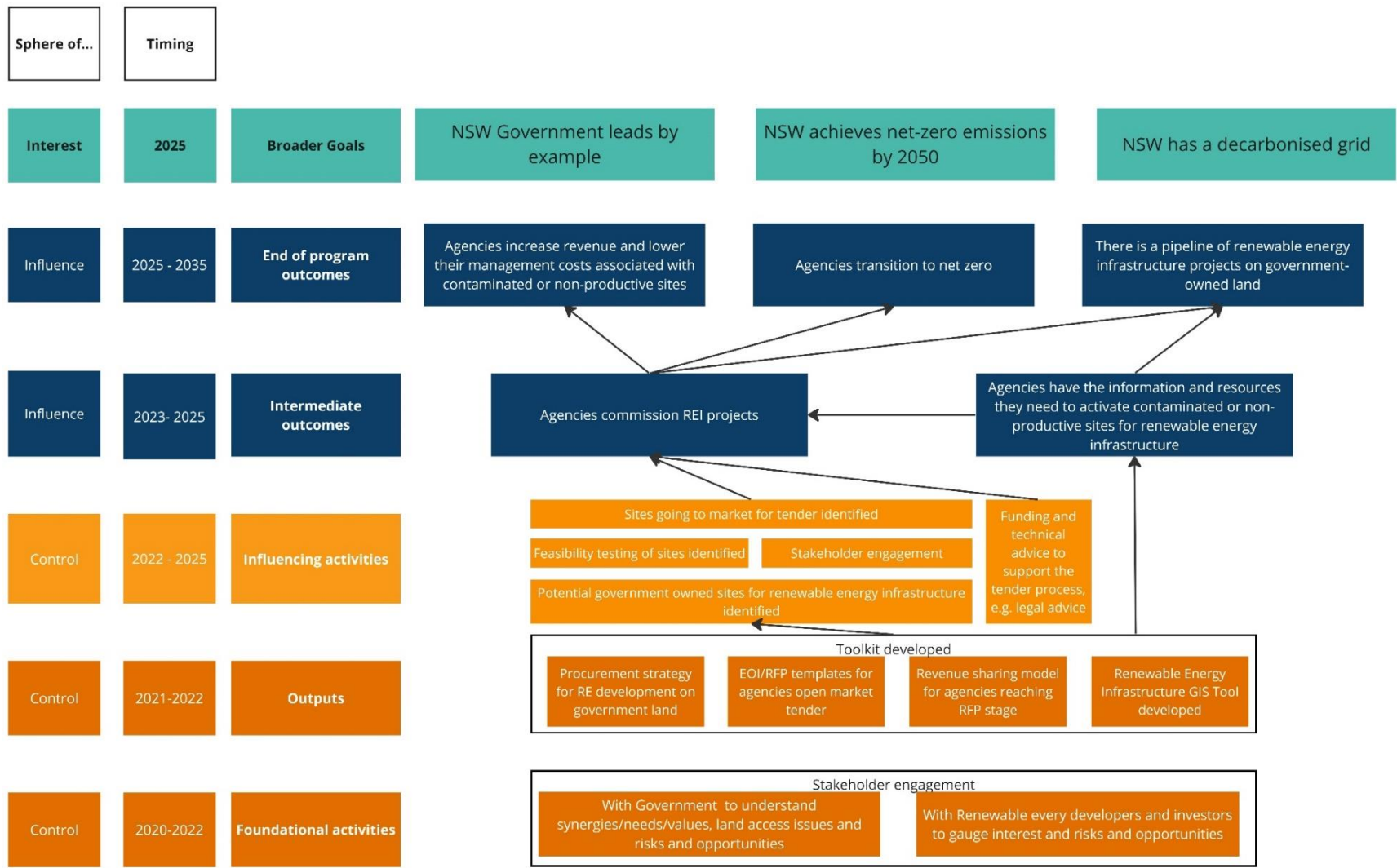
- Government agencies will collaborate to make their properties available for renewables and emissions infrastructure development.
- Government agencies will collaborate to ensure the necessary approvals are provided for projects to be progressed.
- Demand for additional renewable energy supply will be strong.
- Renewables will be commercially competitive against alternative fossil fuel energy generation during the program's lifetime.
- There will be strong private sector appetite to invest in renewables and emissions reduction projects.
- Government policies, legislation, planning and approvals processes will not present onerous barriers to project development.
- Project developers will be able to access finance in the current depressed economic climate.
- The toolkit resources (the key program outputs) will cover the diversity of potential projects.

These assumptions are important indicators of two key issues underpinning the program's status as a pilot project. These are that:

- There were several unknowns, such as demand for program outputs by government agencies and the private market, that the program would need to spend time understanding to shape and achieve intended outputs and outcomes. This kind of exploration of unknowns to determine certainty is consistent with innovative activity.
- The project had an ambition to produce outputs that would be useful to achieve a diverse range of renewable energy projects. Ambitious projects that test boundaries will generally experience a mix of successes and failures. This is also consistent with innovative activity.

The 2023 program logic is illustrated in Figure 1.

Figure 1: 2023 Program Logic



4.2 Key evaluation questions

The 2023 MEP contained the key evaluation questions (KEQs) which the evaluation has sought to answer.

Table 2: Key evaluation questions

Evaluation type and domain	Key evaluation question	Sub question if applicable
Process		
Effectiveness and appropriateness Effectiveness Effectiveness	How did program management arrangements support effective delivery?	- How well did the program logic hold true throughout implementation? Was it updated as the program and context changed? - How well did the governance arrangements provide oversight and direction? - How well were the risks monitored and managed?
Efficiency	To what extent has the program been delivered on time and budget?	- Was the program delivered on time? What were the reasons for this? - Was the program delivered on budget? What were the reasons for this?
Appropriateness	To what extent was the program design appropriate to the context?	To what extent did the program support agencies to overcome the barriers to using surplus lands for renewable energy infrastructure?
Outcome		
Scaling	What contribution has the program made to the achievement of net zero emissions by 2050? (for Net Zero programs) What were the unanticipated outcomes of the program, both positive and negative?	- What is the projected emission reduction that will be achieved once all projects tendered under the pilot are operational? - What are the potential emission reductions that could be achieved if the pilot was scaled and delivered through to 2030?
Legacy	How did the program ensure NSW Government leads by example?	To what extent are NSW Government agencies likely to continue progressing renewable energy development on surplus land following the conclusion of the program?

It should be noted that the 2023 MEP did not define the meaning of appropriateness, effectiveness, or efficiency for the evaluation of process. To support a qualitative analysis of process related KEQs, ACG has defined these terms. These are explained in section 5 – Methodology.

5. Methodology

5.1 Evaluation design and implementation

The evaluation has been co-designed by the appointed evaluator (ACG) and DCCEEW.

Table 3: Evaluation co-design process

Co-design stages	Activities and agreement on issues
Stage One: Planning - Inception	DCCEEW and ACG agreement on: ▪ The use of the 2023 Program Logic and MEP to guide the evaluation. ▪ The program objectives, outcomes and outputs to evaluate and types of data needed for the evaluation. ▪ The project planning and reporting process and mutual expectations.
Stage Two: Planning - Project plan	DCCEEW and ACG agreement on: ▪ ACG's preliminary findings answering the KEQs following an initial literature review. ▪ ACG's identified and recommended further issues to evaluate. ▪ ACG's identified information gaps needing to be addressed to evaluate further issues. ▪ Further literature to be provided by DCCEEW to address information gaps. ▪ Stakeholders to be consulted to address information gaps and engagement methodology. ▪ Methodology to assess potential emission reductions (tonnes CO2-e) from project outcomes. ▪ Data analysis and evaluative methodology.
Stage Three: Analysis - Data gathering	▪ Further literature review. ▪ Engagement with DCCEEW and other NSW Government stakeholders via the agreed methodology.
Stage Four: Key findings	▪ DCCEEW and ACG agreement on key findings presented by ACG.
Stage Five: Draft reports	▪ DCCEEW and ACG agreement on first and second draft reports and draft recommendations.
Stage Six: Final report	▪ DCCEEW and ACG agreement on final report and recommendations.

5.2 Sources of data

5.2.1 Program literature (process and outcomes)

To assess the process and outcome KEQs, ACG reviewed program literature in two stages:

- A preliminary review at stage 2 of the evaluation process to identify (a) information that answered KEQs; (b) further issues that needed to be evaluated and/or questions that needed to be asked because information was unclear and/or lacking; and (c) sources of information to address gaps in knowledge.
- A final review at stages 3 and 4 of the evaluation process to answer all KEQs and address any gaps in knowledge identified during the preliminary review.

The evaluation reviewed the following types of information provided by DCCEEW.

- *Program administration documents* including information demonstrating program planning, approval, delivery schedules, budgeting and reporting. This included documents stored in the DCCEEW SPACE document management system.
- *Program design documents* including the original and revised program logic and 2023 MEP.
- *The inputs used by the program* to develop its required outputs. This included the reports of the NSW Government's Property Data and Analytic Services (PDAS) and consultants ITP Renewables, Price Waterhouse Coopers and ARUP which DCCEEW used variously to identify the market supply of underutilised government owned land; demand from government agencies and the private sector to use land for REII; the kind of variables that should be applied to create a long list of potential government owned land in the form of a Geospatial Information Service (GIS) tool; and conduct feasibility studies of shortlisted land sites.
- *Program outputs* including the GIS tool to be used by landowning government agencies to shortlist suitable land for REII in their portfolios; the GIS user guide made available to landowning government agencies; and the independent feasibility assessments of potential REII projects funded by the program.
- *Program outcomes* including the tenders developed by some government agencies to offer REII opportunities to the market; tender evaluations undertaken by those agencies; and DCCEEW and other government agency briefing notes explaining go to market strategies and results.

5.2.2 Stakeholder consultation (process and outcomes)

The evaluation could not identify any definitive single program document holistically recording all the agencies engaged by DCCEEW throughout the program and the results of that engagement. However, various program literature suggests that between December 2021 and February 2022 nine agencies responded to DCCEEW's request to identify potentially suitable land for REII. Of these, four agencies were fully enabled by program activities and outputs to undertake REII feasibility studies and pursue market approaches for REII projects. These agencies are Crown Lands, Department of Primary Industries and Regional Development (DPIRD), Property

and Development NSW (PDNSW) and National Parks and Wildlife Service (NPWS). As part of the methodology design DCCEEW asked the evaluation to consult with Crown Lands, DPIRD and PDNSW.

To assess the process and outcomes KEQs, ACG and DCCEEW agreed that the following categories of stakeholders should be engaged.

- *Stakeholders who can provide information about program activities and outputs.* These are DCCEEW program managers and ITP Renewables (ITP), the private consulting firm which the program funded to conduct feasibility assessments of projects nominated by other landowning government agencies.
- *Stakeholders who can provide information about the extent to which program activities and outputs helped to influence other agencies deliver program outcomes and goals and achieve any unintended benefits.* These are the landowning government agencies who shortlisted land for feasibility assessment and took feasible sites to market. These are as follows:
 - Crown Lands, which agreed to ITP feasibility assessments of multiple sites owned by it but managed by seven local councils and took one site in Balranald to market via a two staged competitive process. The evaluation noted that this project did not proceed because Crown Lands converted the site from leasehold to freehold and as such the site is no longer owned by the NSW Government.
 - (DPIRD which agreed to ITP technical feasibility assessments for solar and BESS for five sites owned by it in 2023. It included three of those sites in a 2025 joint DPIRD/DCCEEW application for ARENA funding for the development (detailed design and construction) of a microgrid enabling solar and batteries to generate energy for those sites without relying on the external electricity grid if required.
 - PDNSW which agreed to the feasibility assessment of the former Belrose landfill site (owned by WAMC) and took that site to the market in 2023. The evaluation notes that the competitive process concluded in 2024 and has resulted in WAMC leasing the site to a private developer for development and operation as a Battery Energy Storage System (BESS) facility.
- *Stakeholders who can provide information about program scaling.* This is Crown Lands as program literature indicates that 97 percent of government owned land that has been identified in the GIS portal (long lists) as potentially suitable for REII is owned by Crown Lands.

Applying these categories, ACG and DCCEEW agreed on the type and volume of stakeholders within them who should be engaged. These are explained below in Table 4. In total, twelve stakeholders were consulted.

Table 4: The type and volume of stakeholders engaged by the evaluation

DCCEEW stakeholders	ITP renewables	NSW Government agencies and related projects
▪ The two program managers from 2020-25 ▪ The two program directors 2020-25 ▪ The manager of sustainability programs 2025 ▪ The two project officers from 2021-25	▪ The consultant from 2020-25	▪ One official from Property and Development NSW ▪ Two officials from Crown Lands ▪ One official from Primary Industries and Regional Development

After considering the potential contributions of these stakeholders towards data collection and KEQ assessment, ACG and DCCEEW agreed on the appropriate ways to engage with them. This included a mix of survey and interview methods for the following reasons.

- DCCEEW program staff were surveyed because they were not interviewed individually but rather asked to participate in a workshop. A workshop was chosen to give the four program/project officers a collective opportunity to share their experiences and views with the evaluation. However, as workshop settings can be daunting for some participants, the evaluation also chose to survey them to collect to ensure the accuracy of base data, especially about program management.
- ITP Renewables was asked to participate in the workshop because it was a key consultant to the program team in various ways throughout the program and relied on significantly by program staff.
- All other stakeholders were interviewed as the evaluation was confident it could collect robust base data from them via this method.

Table 5: Stakeholder engagement methodology

Stakeholder organisations	Stakeholder nominees	Method of consultation
DCCEEW	▪ The two program managers from 2020-25 ▪ The two project officers from 2021-25	▪ A written survey ▪ Participation in a workshop
DCCEEW	▪ The two program directors 2020-25	▪ Structured interviews
DCCEEW	▪ The manager of sustainability programs 2025	▪ Structured interview
ITP renewables	▪ The ITP consultant from 2020-25	▪ Participation in a workshop
▪ Property and Development NSW ▪ Crown Lands ▪ Primary Industries and Regional Development	▪ Five officials with knowledge of relevant projects	▪ Structured interviews

5.2.3 Assessment of potential emissions reductions (outcome)

The KEQs seek an assessment of two distinct emission reduction (tonnes CO₂-e) issues.

- Projected emission reduction that will be achieved once all projects tendered under the pilot are operational and all the feasibility assessments have been implemented: and
- Potential emission reductions that could be achieved if the pilot was scaled and delivered through to 2030.

During the evaluation planning stage, ACG offered DCCEEW several options for these assessments. Following its consideration of these options, DCCEEW selected some which were applied by the evaluation. These selected options are explained in Table 6.

Importantly, it was established during the evaluation planning stage that DCCEEW had not determined an official base case target for the program's contribution to emissions reduction in the program design or implementation. Program staff suggested this was because the program was intended to align Net Zero Plan Priority 4 (government leading by example) and therefore does not require a quantified emission reduction target. While the evaluation accepts this is a reasonable view, it should be noted that the program logic specifically links the program to achieving Net Zero as per the CCF objectives. Given this, the program should have included a base case emissions reduction target intended to contribute to Net Zero. This would have enabled an evaluation to assess how REII projects helped to achieve this target. If DCCEEW's original program design intention was not to evaluate how the program specifically contributed to CCF targets, then ideally a different program logic should have been developed to reflect this.

Program literature reviewed by ACG suggested that DCCEEW may have considered targets of either 1.8Mt CO₂-e or 152,505t CO₂-e (likely per annum though this is not stated) through to 2030 during the program design stage. However, DCCEEW confirmed that neither of these were agreed as the program's base case and therefore the evaluation has not used them.

As a result, the emissions reduction assessment methodology applied by the evaluation could not include any comparison to a base case.

Table 6: Methods used to assess emissions reduction potential

Assessment objective	Assessment method
The projected emission reduction that will be achieved once all projects tendered under the pilot are operational and all the feasibility assessments have been implemented.	(a) Identify the potential emission savings reported in all ITP feasibility assessments and add these together to calculate a potential total. The caveat here will be the realistic progression of feasibility assessments to project implementation. (b) Add to the total in (a) any available emissions reduction forecast data from any projects that successfully proceeded to an operational stage.
Potential emission reductions that could be achieved if the pilot was scaled and delivered through to 2030.	(a) Explain in the final report that as the program literature identifies that 97 percent of suitable land is owned by Crown Lands any capacity to scale the program will depend on these factors: ▪ The extent to which DCCEEW has already exhausted the process of land identification, shortlisting, and feasibility assessment with Crown Lands; and/or ▪ The extent to which Crown Lands already deemed feasible under the program has yet to realise its REII potential.

5.3 Data analysis method

5.3.1 Definitions of key data analysis themes

The 2023 MEP does not define the meaning of the following terms for the purposes of a qualitative assessment – process, appropriateness, effectiveness, efficiency. It is important to define these terms so that performance standards for them can be assessed. During the evaluation planning stage ACG proposed definitions for these terms based on best practice principles applied by the Australian and NSW Governments. DCCEEW accepted these proposed definitions and the evaluation has applied them. Table 6 explains the definition of the data analysis themes applied by the evaluation. It was agreed by ACG and DCCEEW that the data analysis using these defined themes would be based on ACG's professional judgement based on the available evidence and there was no need for indicators or rubrics to frame this assessment as program evidence alone will determine whether the defined principles have been met.

Table 7: Data analysis themes framing the qualitative assessment

Theme	Meaning/principle
Process (project management)	▪ The need for programs to have robust planning and design including effective risk management processes. ▪ The need for programs to be oriented to achieving outcomes to maximise the value of government funding. ▪ The need for program administration obligations to be proportionate with program scale, nature, complexity and risks. ▪ The need for programs to include effective collaboration and partnership between the administering agency, grant recipients and other relevant stakeholders. ▪ The need for programs to be subject to robust governance and accountability frameworks and systems to support public accountability for decision-making, grant administration and performance monitoring
Appropriateness	The extent to which program represents a public good and addresses market failure.
Effectiveness	The extent to which program outputs, outcomes and benefits have been achieved and/or can potentially be achieved over time. Outcomes are the stated outcomes in the program logic. Benefits arise from the outcomes and can be anticipated and/or unanticipated.
Efficiency	Technical efficiency (allocation of program resources) and allocative efficiency (value of program to consumers).

5.3.2 Data analysis method applied by the evaluation

The Program Logic in the 2023 MEP clearly distinguishes between:

- Issues within the program control – foundational activities, outputs and influencing activities; and
- Issues that the program can only influence – intermediate outcomes, end of term outcomes and goals.

It was agreed by ACG and DCCEEW that this is a sensible distinction given that the program is, framed to facilitate collaboration between DCCEEW and other landowning government agencies, and other agencies (not DCCEEW) are ultimately responsible for determining whether and how to offer suitable land owned by them for REII market responses.

Given this, the evaluation focused its assessment of Program Logic delivery on answering the following matters, which also assisted consideration of program scaling and legacy issues:

- The extent to which the program and its artefacts have delivered and/or could potentially deliver the intended foundational activities, outputs and influencing activities identified in the Program Logic.
- The extent to which the program and its artefacts have influenced and/or could potentially influence actions by other agencies to achieve program outcomes and goals, limitations on this influence and any approaches that could have improved this influence.
- The extent to which other agencies have achieved and/or could potentially achieve intended program outcomes and goals.

The ultimate data analysis method was framed by this focus and the defined analysis themes. Table 8 summarises the data analysis (qualitative) method applied by the evaluation.

Table 8: Data analysis method

Program requirements	Foundational activities	Outputs	Outcomes	Objectives
Purpose of requirements	Enable outputs	Facilitate outcomes	Achieve objectives	Deliver program purpose
Program themes being assessed by data analysis	Process and technical efficiency	Process, effectiveness, and allocative efficiency	Process, effectiveness, and allocative efficiency	Appropriateness and effectiveness

Method of reasoning	Deductive reasoning based on available evidence is suitable as there is existing program literature and sufficient stakeholder participation to provide a baseline of data about program purpose
Basis of reasoning	ACG's professional skills, experience and expertise in program evaluation
Sources of evidence	Review of program and related policy literature and stakeholder consultation via survey, structured interviews and workshops
Evidence limitations addressed by method	As program results may be limited, broader data analysis themes can offer alternative insights on Program performance and value
Method to avoid bias	Triangulated data collection and analysis by multiple evaluation team members
Limitations of method	Program literature and stakeholder views may not be fully able to support specific conclusions about future program performance

5.4 Evaluative method

The evaluative method agreed by ACG and DCCEEW followed three steps described in table 9 below.

Table 9: Evaluative method

Steps	Description	Basis of method
1	Identify criteria and consideration of performance standards	The program 2023 MEP indicators, targets and rubrics, updated by ACG where needed
2	Measure performance	Evaluation data analysis method
3	Compare performance with desired standards to reach key findings	Obtained evidence and ACG professional expertise

5.4.1 Performance standards applied by the evaluation

The 2023 MEP includes indicators and targets to assist the evaluation compared to the performance of the program against some identified standards/intended results to assess KEQs. Three of the indicators relating to KEQ1 are accompanied by general rubrics, while the others have nominated specific targets reflecting the nature of the program and practicality of KEQ assessment. The evaluation applied most of these indicators and targets as ACG and DCCEEW believed they were sufficient to assess the program and are consistent with the agreed data analysis method. However, DCCEEW agreed to ACG amending some indicators and targets to better support the agreed data analysis method, the practicality of evaluation and actuality of program issues and implementation.

Table 10 demonstrates the KEQs and sub KEQs drawn from the 2023 MEP. It also shows the indicators and targets used for the evaluative method. Shaded indicators and targets represent those amended by the evaluation. Unshaded indicators and targets represent those drawn from the 2023 MEP.

Table 10: Performance standards guiding the evaluative method

KEQ	Sub KEQ	Indicator	Target	Baseline
<i>The relevant KEQ. This can just be the number of the KEQ.</i>	<i>The relevant sub question. This can just be the number of the sub question.</i>	<i>What will be tracked to show change. You may need more than one.</i>	<i>What success looks like.</i>	
1. How did program management arrangements support effective delivery?	1a. Was there a clear and plausible program logic guiding implementation?	▪ Evidence of program logic outputs aligned to delivery documents ▪ Evidence that program logic updates were reflected in relevant areas of program implementation	Good as per rubric in the 2023 MEP (see Appendix 1)	Program logic
	1b. Did the governance arrangements provide oversight and direction?	▪ Evidence that governance arrangements including roles and responsibilities are articulated ▪ Evidence of governance groups using data/reporting to inform decisions	Good as per rubric in the 2023 MEP (see Appendix 1)	NA
	1c. Were the risks and assumptions monitored and mitigated?	▪ Currency of risk register throughout program delivery ▪ Effectiveness of mitigations against risks ▪ Instances of risks being escalated where mitigations are ineffective	Good as per rubric in the 2023 MEP (see Appendix 1)	Original risk register
2. To what extent has the program been delivered on time and budget?	2a. Was the program delivered on time? What were the reasons for this?	Fidelity of actual project delivery against planned delivery	Program delivered consistently within delivery timeline and/or annual delivery plans	Original delivery plan and/or annual plans

KEQ	Sub KEQ	Indicator	Target	Baseline
<i>The relevant KEQ. This can just be the number of the KEQ.</i>	<i>The relevant sub question. This can just be the number of the sub question.</i>	<i>What will be tracked to show change. You may need more than one.</i>	<i>What success looks like.</i>	
	2b. Was the program delivered on budget? What were the reasons for this?	Planned versus actual program expenditure	Program delivered consistently within original program budget and/or annual program budget	Original program budget and/or annual program budget
3. To what extent was the program design appropriate to the context?	To what extent did the program support agencies to overcome the barriers to using surplus lands for renewable energy infrastructure?	- Level of agency satisfaction with the toolkit - Level of agency satisfaction with the funding, support and technical advice provided	The level of satisfaction reported by Crown Lands as it owns 97% of government surplus land	NA
4. What contribution has the program made to the achievement of net zero emissions by 2050? (for Net Zero programs)	4a. What is projected emission reduction that will be achieved once all projects tendered under the pilot are operational?	Projected emissions reductions from feasibility assessments conducted along with any operational projects	NA	NA
	4b. What are the potential emission reductions that could be achieved if the pilot was scaled and delivered through to 2030?	As 97% of suitable land is owned by Crown Lands any capacity to scale the program will depend on these factors - The extent to which DCCEEW has already exhausted the process of land identification, shortlisting, and feasibility assessment within the Crown Lands. - The extent to which Crown Lands already deemed feasible under the program	NA	NA

KEQ	Sub KEQ	Indicator	Target	Baseline
<i>The relevant KEQ. This can just be the number of the KEQ.</i>	<i>The relevant sub question. This can just be the number of the sub question.</i>	<i>What will be tracked to show change. You may need more than one.</i>	<i>What success looks like.</i>	
		has yet to realise its REII potential.		
5. How did the program ensure NSW Government leads by example?	To what extent are NSW agencies likely to continue progressing renewable energy development on surplus land following the conclusion of the program?	- Self-reported intention to progress REII projects beyond the pilot (i.e., without ongoing support) - Self-reported likelihood of progressing REII projects if support was continued	At least 2 of the 3 agencies have undertaken feasibility assessments	NA
		- Instances of agencies using toolkit - Instances of agencies progressing REII projects	At least 2 of the top 5 landowning agencies	NA

5.5 Limitations

There were some potential limitations on the capacity of the evaluation to obtain data. However ACG and DCCEEW worked together to overcome these limitations. Table 11 explains the limitations and how they were addressed.

Table 11: Potential limitations and how they were addressed

Category	Potential limitation	Action to address limitation
Literature	ACG identified in its preliminary literature review that evidence of program management and results was contained in almost one hundred documents including delivery plans, file notes, briefing notes, presentations, consultant reports, feasibility assessments, reports in the DCCEEW SPACE system, and references to the program in CCF annual reports.	ACG used its literature review to plot a history of the program's design, implementation, activities, outputs and outcomes and asked DCCEEW to confirm this.

Category	Potential limitation	Action to address limitation
	As a result of this review, ACG identified that there was no single source of truth (one document) that clearly and systematically recorded and explained the entirety of the program history, management and results over its term including the reasons for and outcomes of choices and actions. This kind of document is usually critical for an evaluation process as it provides the evaluation with a base case in the form of a verified and agreed set of recorded facts.	
Stakeholders	ACG identified that since the program began there had been significant churn of DCCEEW staff and other government agencies involved with the program and this may reduce the evaluation's capacity to obtain primary evidence.	DCCEEW ensured that all the relevant program and other government agency staff familiar with the program during its term were available for consultation and ACG used a range of methods to gather data from them.
Data analysis method	ACG identified in its preliminary literature review that in the absence of any definitive documents providing a single source of truth about the program design and implementation it may be difficult to answer the KEQs and program's CCF contribution with certainty.	ACG used its literature review to identify further questions to ask DCCEEW to provide certainty about program truth.
Data analysis method	ACG identified in its preliminary literature review that the 2023 MEP did not define the meaning of key data analysis themes – process, appropriateness, effectiveness and efficiency.	ACG recommended appropriate definitions to DCCEEW to guide the data analysis.
Evaluative method	ACG identified in its preliminary literature review that the 2023 MEP did not contain indicators and targets (performance standards) for some KEQs.	ACG recommended appropriate performance standards to DCCEEW based on its literature review, consultation with DCCEEW and understanding of the program's actual capacities, successes and limitations.

6. Evidence for key findings – process evaluation

6.1 KEQ 1: How did the program management arrangements support the effective delivery?

6.1.1 Sub KEQ 1(a): Was there a clear and plausible program logic guiding implementation?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
1. How did program management arrangements support effective delivery?	1a. Was there a clear and plausible program logic guiding implementation?	Evidence of program logic outputs aligned to delivery documents	Good as per rubric in Appendix 1 of the Evaluation Plan	Good

Key findings: Data analysis themes

Themes	Evaluation findings
Appropriateness of objectives in 2023 program logic	The program represents a public good as it contributes to the NSW Government's Net Zero Plan which is intended to improve intergenerational welfare.
Effectiveness of program logic to support objectives	The logic was subject to review and updated to ensure alignment with program objectives and stakeholder needs and iterative learnings from the pilot on emerging opportunities and challenges and this supported program effectiveness.
Delivery and effectiveness of intended activities and outputs in program logic	- All the foundational activities within DCCEEW's control have been fully delivered. - Three of the four outputs within DCCEEW's control have been fully delivered. - The influencing activities outside of DCCEEW's control have been fully delivered - The delivered activities and outputs have been enabled program consumers (landowning agencies) to take actions to achieve intermediate program outcomes.

1. Appropriateness of objectives in 2023 program logic

Usually, government programs are funded for one or more of the following reasons:

- *To achieve a public good.* Governments can support a public good by (a) funding services that the market would not normally fund (b) subsidising market-based activities to enable an increase in the scope, scale or accelerated delivery of services and/or (c) subsidising services to retain affordability for consumers.
- *To address market failure.* Governments can seek to address market failure by (a) providing services itself (b) subsidising market-based services to ensure a standard or quality and/or (c) responding with the same actions as it would to support a public good. Barriers to market entry are generally associated with market failure.

The nature of these possible responses by government indicates that there is a range of inter-relationships between supporting a public good and addressing market failure. Sometimes in choosing one option government is also pursuing another. However, not all market failure can be addressed by government regulation or spending. Some failures can more effectively be addressed by changes in business culture and operating practice in response to commercial need.

When choosing an intervention, governments should be clear about whether an activity is to provide a public good and/or address a market failure. Doing so will help to clarify the achievable benefits of the intervention at the outset and shape the measurement and risk management of the intervention. It will also avoid situations where governments choose interventions that they cannot deliver better than business or the market itself. Poorly conceived interventions can reduce the technical efficiency (benefits) of spending and the allocative efficiency (value to consumers) of spending.

To avoid the risk that the program was an unnecessary intervention, DCCEEW undertook the following important activities during the program planning, design, and implementation stages.

- It engaged the consultants, ITP Renewables, to undertake consultation with non-government stakeholders in the REII industry to gauge the need and appetite for the program. One issue identified during this process, and confirmed by government stakeholders consulted by the evaluation, is that the program was helpful to industry stakeholders who can find it difficult to identify and access government land suitable for REII.
- It engaged the consultants, Price Waterhouse Coopers, to prepare a REII project procurement strategy which landowning government agencies could use to take suitable land to market. The development of this strategy bolstered knowledge within the government about the conditions market participants need when responding to REII commercial opportunities offered by government. This helped to reduce information asymmetry between government and the private sector about planning, rates of return on investments, and other relevant issues. This is a public good if DCCEEW and other agencies embed this knowledge in their processes for ongoing application to achieve technical and allocative efficiency in future program design.

- It engaged the consultants, ITP Renewables, to prepare the GIS tool intended to be used by landowning government agencies to shortlist land suitable for REII and undertake feasibility studies of potential REII projects on land shortlisted by agencies. These actions helped to ensure that program implementation responded to the public good and market failure issues identified in the planning stages.

In addition to these specific actions, the fundamental purpose of the program is the public good because it is supporting the NSW Government's Net Zero Plan to reduce carbon emissions and this plan is intended to promote the welfare (cleaner environment) of future generations. More specifically, one objective of the program was to meet priority 4 of the NSW Government's Net Zero Plan Stage 1: 2020-2030 'Ensure the NSW Government leads by example'. The NSW Government has clearly identified this priority as a public good.

2. Effectiveness of program logic to support objectives

The original program logic in 2021 included an ambitious and wide-ranging set of outcomes to achieve its objectives. These outcomes were:

1. Meet priority 4 of the NSW Government's Net Zero Plan Stage 1: 2020-2030 to 'Ensure the NSW Government leads by example'.
2. Unlock economic benefits from underutilised government property land assets catalysing agencies to develop sites with renewable energy infrastructure.
3. Secure additional energy supply and reduce energy costs for government, households and businesses by investing in renewable energy infrastructure.
4. Reduce carbon emissions from energy generation by investing in renewable energy infrastructure.

Outcomes 2 and 3 were particularly ambitious because the program was a 2-year pilot project designed to fund DCCEE's preparation of a standard set of policy/data tools/artifacts which other landowning government agencies could use to achieve those outcomes. The degree to which other agencies used these tools and/or successfully used these tools to achieve outcomes 2 and 3 was not realistically within DCCEE's control. Program implementation between 2021-23 helped to clarify this reality and in 2023 the program logic was updated to remove outcomes 2 and 3. The 2023 program logic clarified that:

- Only foundational and influencing activities and program outputs were in DCCEE's control.
- The delivery of intermediate and end of term outcomes and program objectives were under the control of agencies owning land nominated via the program process as suitable for REII.
- The program was a contributor to a whole of government effort to achieve specific CCF outcomes.

This refocussing was an important step taken by DCCEE to ensure that the program had the opportunity to be as effective as any pilot project could possibly be, and to remove significant risks of failure within program design.

During the term of the program there were four project officers responsible for the management of the program at different times. This is a significant degree of personnel turnover for a relatively short-term program, and therefore it was critical that the program logic offered consistent guidance. The evaluation's consultation with these four project officers revealed that three of them agreed that during their tenure:

- A clear program logic articulating the expected causal pathways between outputs, outcomes and objectives was established and regularly reviewed throughout the life of the program.
- Program staff used the program logic to maintain a shared understanding of the outcomes and how they would be delivered.
- Where context and conditions changed, program staff used a collaborative process to update the program logic, and changes were reflected in the program's implementation.

3. Delivery and effectiveness of intended activities and outputs in program logic

While the 2023 program logic updated the original program outcomes, it retained similar activities and outputs to the original program logic, but importantly clarified which activities and outputs were within DCCEEW's control. Program literature and stakeholder consultation undertaken by the evaluation suggests that:

- The foundational activities within DCCEEW's control have been fully delivered.
- Some of the outputs within DCCEEW's control have been fully delivered.
- The influencing activities outside of DCCEEW's control have been fully delivered.

The table below describes the identified actions taken by DCCEEW to deliver the program logic activities and outputs.

Table 12: Delivery and effectiveness of program logic activities and outputs

Program logic requirements	Delivery actions and effectiveness identified by the evaluation
Foundational activities (within DCCEEW control)	
Engagement with government stakeholders to understand synergies/needs/values, land access issues and risks and opportunities	DCCEEW's methodology for identifying the scope of the program's contribution was based on identifying and filtering land using the government's Property Data and Analytic Services (PDAS) which used the following tools – Government Property Register (GPR), Government Property Exchange (GPX) and the Centralised Analysis System for Performance of Energy and Resources (CASPER), which agencies use to report their compliance with the Government's Resource Efficiency Policy (GREP). That report identified that: ▪ There was 33.9M (ha) of potential surplus land available for REII. ▪ Of that 32.8M (ha) or 97 percent was owned by Crown Lands. ▪ Of the remaining 3 percent the top landowners were Office of Environment and Heritage (OEH), Forestry Corporation (FC), Water NSW (WNSW), and Department of Primary Industries (DPI). Despite the results of this research, when DCCEEW completed its GIS tool and engaged with agencies about the tool to shortlist potentially suitable REII land for further feasibility assessment, DCCEEW: ▪ Appears to have consulted with Crown Lands and DPI, but not with OEH, FC and WNSW. ▪ Did not confine its engagement to these five agencies but went beyond to consult others including Transport for NSW (TNSW), NSW Health, NSW Education, Sydney Water, and the Office of Strategic Lands. Program literature and DCCEEW stakeholders have been unable to clarify for the evaluation why DCCEEW chose these responses to the PDAS research.
Engagement with renewable energy developers and investors to gauge interest and risks and opportunities	DCCEEW engaged the consultants, ITP Renewables, to undertake consultation with non-government stakeholders in the REII industry to gauge the need and appetite for the program. DCCEEW stakeholders report that the findings in this report informed the design of outputs.
Outputs (within DCCEEW control)	
Renewable energy infrastructure GIS tool developed	The GIS tool was first developed by the Digital Information Office (DIO) in collaboration with DCCEEW. Subsequently DCCEEW engaged ITP Renewables to further develop the tool and particularly develop filters to identify suitable agriculture related properties owned by Crown Lands. It also appears that the government's Land IQ

Program logic requirements	Delivery actions and effectiveness identified by the evaluation
	functionality may have been used to assist in generating the GIS tool. Documents indicate that the tool identified 13,000 potential properties in the Crown Lands portfolio. DCCEEW also developed a comprehensive user guide to assist agencies apply the GIS tool to identify suitable land for shortlisting for REII feasibility assessment. Program literature and the responses of landowning agencies consulted by the evaluation demonstrate that: ▪ The GIS tool and user guide for identifying suitable land for REII were quality products applied effectively by landowning agencies. ▪ The GIS tool includes 20 sophisticated variables for land identification and the user guide will be a useful legacy document of ongoing use by government agencies.
Procurement strategy for REII on government land	DCCEEW engaged the consultants, Price Waterhouse Coopers, to prepare a REII project procurement strategy which landowning government agencies could use to take suitable land to market. However, program literature and stakeholders consulted by the evaluation have been unable to clarify whether and how this strategy informed government agency EOI/RFPs for REII projects.
EOI/RFP templates for agencies to use when tendering for REII projects	The evaluation has reviewed RFP documents used by PDNSW and Crown Lands for REII projects they took to market. These documents vary in nature and program literature does not appear to contain any recorded draft/final templates which DCCEEW prepared, and which were subsequently used by government agencies. However, both Crown Lands and PDNSW indicated they utilised RFP documentation prepared under the program to develop their own 'bespoke' RFP documents.
Revenue sharing model for agencies reaching the RFP stage	Program literature, such as briefing notes, refer to the intention/opportunity for DCCEEW to develop revenue models in conjunction with other agencies. However, program literature does not appear to contain any defined draft/final model that was prepared and/or applied to any of the two REII projects (Balranald and Belrose) which agencies took to market. DCCEEW program staff indicated there were mixed views amongst the participating agencies about sharing REII project revenue with DCCEEW to support or extend the REII program. Arguably, the revised Program Logic (2023)

Program logic requirements	Delivery actions and effectiveness identified by the evaluation
	should have removed or scaled back this as an output given the views of participating agencies, which would have been known at that time. Crown Lands advised the evaluation that most of its underutilised land is subject to Aboriginal land claim or native title and that this land had high potential to negotiate revenue sharing arrangements with claimants. However, the program excluded land under Aboriginal land claim or native title because DCCEEW considered that the complexities of negotiations were not appropriate given the pilot nature of the program and would delay any opportunities for success well beyond the term of the program.
Influencing activities (outside DCCEEW control)	
Stakeholder engagement	Consistent with its process for identifying suitable shortlisted land for REII, DCCEEW engaged with a range of agencies to share the GIS tool results and a GIS user guide which DCCEEW had developed for agencies. The consultation with agencies went beyond those identified as the top five landowning agencies from the PDAS process. However the evaluation could not identify in program literature any definitive central record of the total number of agencies engaged throughout program implementation, the nature of the engagement, and how their responses to the engagement contributed to the development of program tools, the shortlisting of properties to subject to feasibility assessment and post feasibility assessment actions.
Identification of potential government owned land for REII	DCCEEW consultation with agencies led to further important clarity about the overall potential for government owned land to be used for REII. For example, program literature and stakeholder consultation suggests that: ▪ Sydney Water and Office of Strategic Lands advised DCCEEW they had no suitable properties. ▪ TNSW advised DCCEEW it was unable to effectively participate in the program as operational priorities mean 'surplus' land can only be utilised for alternative purposes for a maximum of 10 years. ▪ NSW Health and the NSW Education advised DCCEEW that their land was needed for the future provision of health and education services. ▪ Crown Lands advised DCCEEW that its capacity to participate in the program was constrained because of a range of legal and operational pressures.
Feasibility testing of land identified for REII	▪ Program literature and stakeholder consultation undertaken by the evaluation demonstrates that the application of the GIS tool and user guide led to feasibility assessments of REII projects on lands owned by two of the top

Program logic requirements	Delivery actions and effectiveness identified by the evaluation
	five landowning agencies identified by PDAS (Crown Lands and DPIRD), as well as PDNSW, NPWS and 24 private properties leased from NPWS. The feasibility assessment of the NPWS and private properties was undertaken for the Regional Growth NSW Development Corporation (RGDC). ▪ Feasibility assessments of 73 shortlisted properties occurred from 2021-24. Of these 49 are owned by government (Crown Lands, PDNSW, DPIRD and NPWS) and 24 are privately owned on land leased from NPWS. ▪ The feasibility assessments identified 52 properties as feasible for REI of which 31 are government owned. ▪ In 2024 DPIRD included 3 of these properties in a funding application for REI project development.
Market tenders for REI for feasible land	The feasibility assessments funded by the program have led to 2 REI projects being taken to market by agencies in 2023. These were: ▪ A solar and wind project at a Balranald property owned by Crown Lands. The project did not progress because the land was transferred from government to private ownership. ▪ The Belrose landfill owned by PDNSW (Waste Assets Management Corporation) was offered to the market as a BESS facility. In 2024 the property was leased to a private sector proponent to develop and operate a BESS facility.
Funding and technical advice to support market tenders	The consumers and beneficiaries of the program (landowning government agencies) were the intended recipients of this advice. The agencies to which DCCEEW provided this advice were Crown Lands, DPIRD and PDNSW.

6.1.2 Sub KEQ 1(b): Did the governance arrangements provide oversight and direction?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
1. How did program management arrangements support effective delivery?	1b. Did the governance arrangements provide oversight and direction?	Evidence that governance arrangements including roles and responsibilities are articulated	Good as per rubric in Appendix 1 of the Evaluation Plan	Satisfactory

Key findings: Data analysis themes

Themes	Evaluation findings
Effectiveness of program governance including proportionality with program scale, nature, complexity and risks	▪ The program was approved by the Minister and CCF Net Zero Steering Committee. ▪ Beyond approving the program, there is no strong evidence in program literature that CCF Net Zero Steering Committee interrogated program spending, deliverables and value for money and gave any direction to DCCEEW. However, the CCF was confident enough in the program to include reporting of it in annual reports from 2021-2024. ▪ The program was not considered under the Government's Strategic Land and Property Framework (SLPF) which governs use and divestment of surplus agency lands. As a result, stakeholders confirm that the program relied largely on the goodwill of officers within landowning agencies (program beneficiaries) rather than the mandated prioritisation of REII for land use at a whole of government senior executive level. ▪ According to the program team (officers, managers and directors), they managed the program with limited attention from the DCCEEW senior executive level. The light touch governance by the DCCEEW senior executive meant that resourcing constraints affecting the speed and scale of program delivery, and constraints obtaining collaboration from other agencies, were hard to resolve. ▪ Program literature confirms that the program team complied with the DCCEEW SPACE reporting requirements. ▪ The DCCEEW SPACE reporting requirements did not adequately support the capacity of the evaluation to assess the program. This is because information in SPACE does not contain any final program report that records and explains all the program history and facts and how issues were managed to support delivery of the program logic. The evaluation was required to develop a set of facts from almost 100 program documents. The capacity of the former and current members of the program team to fully verify this record was hindered by the absence of a universally and commonly agreed view among them about key program facts.

1. Approval of the program

Program literature and stakeholder consultation undertaken by the evaluation demonstrate that the original program and the 2023 program extension received approval from the NSW Minister for the Environment and Energy at the time and the CCF Net Zero Steering Committee.

Program literature includes a document which estimates that at the time of the program's original approval it was estimated to deliver a Net Present Value (NPV) financial benefit of between \$19M and \$39M in energy cost savings through to 2023. The evaluation assumes that this was a key basis for program approval. However, there is no available documentary or stakeholder evidence explaining:

- The authoritative program approval decision point/discussion/meeting this estimate influenced.
- How this estimate was derived and revised in line with changes to the scope and scale of the program in 2023.
- How this estimate was intended to be used by program oversight mechanisms to interrogate program spending and value for money.

Significantly, there is no program evidence that the program was considered under the Government's Strategic Land and Property Framework (SLPF) which governs use and divestment of surplus agency lands. The consequences of this for program effectiveness were that:

- Renewable energy investment did not have a formal up front 'ranking' within the SLPF as a priority land use for surplus land, unlike, for example the use of surplus land for housing supply.
- This then limited the extent to which the program could leverage agency cooperation and involvement, with the program often relying on the goodwill and commitment of individual officers in participating agencies.

Program literature demonstrates that in relation to its process for selecting suitable land to allocate to REII, DCCEEW's intention included:

- Pursuant to the SLPF, seeking approval from the Property Strategy Collaboration Committee (PSCC) for a proposed approach to:
 - Identifying a long list of surplus and underutilised government land potentially suitable for REII via the GIS portal/tool made available to agencies.
 - Inviting government agencies to use the GIS portal to short list potential land for further analysis.
 - Undertaking desktop feasibility assessments of short-listed land.
- Pursuant to the SLPF, seeking approval from the PSCC and Treasurer for the allocation of feasible land to REII following the feasibility assessments of shortlisted properties.

However, there is no documentary program evidence that the PSCC was engaged and/or provided approval on these issues. In the absence of this decision making process, the program's effectiveness relied largely on the goodwill and commitment of individual officers in participating agencies.

2. Oversight by Climate Change Fund

As the funder of the program the CCF had a responsibility to oversee the delivery of program activities, outputs and outcomes. Program literature suggests that DCCEEW reported program developments to the CCF performance subcommittee and/or CCF administrative committee which are the two oversight forums nominated in the program's 2023 MEP. However, these reports are high level descriptions of activities and do not provide any clarity on:

- The extent to which the CCF bodies interrogated program spending, deliverables and value for money and gave any direction to DCCEEW.
- Whether and how the CCF bodies reported program progress to the Net Zero Committee and Climate Change and Sustainability Program Review Committee, nominated in the program's 2023 MEP as the high-level governance groups. There is no program evidence that these groups provided any direction to the CCF and/or program beyond original program approval.

Nevertheless, the program was reported in the CCF annual reports in 2021-22, 2022-23 and 2023-24. The 2023-24 annual report included a case study of the conversion of the PDNSW (WAMC) owned Belrose waste facility into a BESS facility. This indicates that the program was being reported to the CCF through the nominated governance framework and that the oversight bodies were confident enough in the program to recommend its inclusion in the CCF annual reports. In this context the absence of any program literature documenting interrogation and direction of the program by the CCF oversight bodies suggests that either the CCF adopted a light touch approach to governance and/or were not overly concerned with any aspects of program management.

3. Management by DCCEEW

Three of the four project officers involved with the program advised the evaluation via their consultation responses that:

- Clear governance arrangements were established for the program including the identification of an evaluation sponsor.
- The governance arrangements were formalised in terms of reference, with roles and responsibilities including decision making clarified.
- The governance arrangements supported the program by utilising data and reporting to make decisions and provide direction.
- Program teams supported the governance arrangements by providing timely and accurate reporting and seeking guidance and direction where needed.

In their consultation responses DCCEEW program officers, managers and directors advised the evaluation that the program did not feature significantly in the priorities of the DCCEEW senior executive and thus it was difficult to gain the attention, input and direction of that level of DCCEEW management. The program level staff report that this created the following dynamics for the program.

- *Program managers were reluctant, particularly early in the life of the program, to identify and escalate issues and challenges.* Program literature (DCCEEW SPACE reports) confirms that senior executives were provided with program information on a monthly basis, but there is limited evidence of senior executive engagement

in response to these reports. Program literature also affirms that in terms of program risks, only budget exceedances were escalated to the senior executive for attention.

- *There were barriers to receiving the level of departmental resourcing needed to scale the program.* Program staff report that they sought to address resourcing constraints by leaning heavily on consultants (ITP Renewables and PWC) to undertake key tasks needed to produce program outputs. Program literature confirms that these consultants were variously tasked with undertaking market sounding, GIS tool development and analysis for market procurement of REII.
- *There were barriers to receiving the degree of senior executive support necessary to drive whole of government collaboration on program delivery.* The evaluation has confirmed this via its consultation with Crown Lands, DPIRD and PDNSW which demonstrate that agency collaboration with the program relied heavily on goodwill from officers in these agencies rather than direction from their respective senior executives.

As the program was a limited trial project, the light touch level of senior executive involvement was arguably proportionate to the relatively small scale of funding and resources allocated to the program. However, it also did not align with program's ambition including scaling potential, level of innovation and complexity.

4. Program reporting

Literature provided by the DCCEEW program team to the evaluation

The program team provided the evaluation with almost one hundred program related documents including delivery plans, file notes, briefing notes, presentations, consultant reports, feasibility assessments, reports in the DCCEEW SPACE system, and the CCF annual reports. These documents varied in quality from being complete and approved to being in draft/marked up form and/or undated and unsigned.

The evaluation notes that amongst this literature there was no single source of truth (one document) that centralised program information into one document to clearly and systematically explain to any reader the entirety of the program history, management and results over its term including the reasons for and outcomes of choices and actions.

The DCCEEW program and evaluation teams have advised the evaluation that for internally delivered programs, DCCEEW requires monthly reporting via the SPACE system. The program team provided the evaluation with access to the monthly program reports (from October 2023 to March 2025) located in the SPACE portal. The evaluation observes that these reports are largely administrative updates on program implementation and spending and do not provide any consistent reporting against program logic activities, outputs and outcomes. The program information in the SPACE portal does not contain any annual or final program report that collates, centralises and holistically explains the program issues and how they were managed to support delivery of the program logic.

Based on these observations the evaluation concludes that the SPACE portal is chiefly intended to support DCCEEW decision making, not an end of program evaluation process. In the experience of the evaluation team this sits in contrast to the expectation that DCCEEW has of external grantees to whom DCCEEW has provided program funding. In those cases the grantees (whether government agencies or non-government organisations) are required to produce annual program reports recording yearly progress delivering the applicable program logic, as well as a final program report capturing the entire program history, decision making, and results.

The absence of the requirement for this kind of final centralised version of program events for internally delivered DCCEEW programs had implications for the evaluation which are discussed below under the sub-heading – impacts of DCCEEW reporting systems on the evaluation findings.

Program compliance with DCCEEW reporting systems

The monthly SPACE reports reviewed by the evaluation indicate that the program team complied with the DCCEEW reporting requirements.

The existence and some achievements of the program was also reported in the CCF annual reports in 2021-22, 2022-23 and 2023-24. For example:

- The CCF 2021-22 annual report included the following – *“The \$3.4 million REII program enables investors, businesses, and communities to develop renewable energy infrastructure on government-owned land. This land consists of areas which government agencies have identified as surplus to their needs or land with potential to provide additional economic, social or environmental benefits through development. Key achievements were (a) developed the bespoke Renewable Energy Infrastructure GIS portal used to analyse 165,000 government land assets for renewable energy opportunities including wind, solar and pumped hydro; and (b) engaged with government agencies to further investigate identified renewable energy opportunities through a detailed assessment of technical and planning constraints”*.
- The CCF 2023-24 annual report included a case study of the conversion of the PDNSW (WAMC) owned Belrose waste facility into a BESS facility.

The inclusion of the program in the CCF reports demonstrates that program team was supporting one of DCCEEW's ultimate reporting processes and suggests there was sufficient program information being reported to support DCCEEW's confidence to promote the program.

Impacts of DCCEEW reporting systems on the evaluation findings

Firstly, despite the program team's compliance with the DCCEEW reporting systems, the four project officers involved with the program over its term advised the evaluation that they could neither agree nor disagree that the program decisions and changes are clearly documented and provide clarity on how the program has evolved over time. This level of ambiguity from program staff affirms the evaluation's observation that the SPACE system requirements may not be sufficient to support an overall judgement about program success and delivery of its intended program logic.

Secondly, the absence of single source of truth (one document) explaining the program history, decision making, stakeholder engagement, inputs, outputs, and outcomes, required the evaluation team to produce this record for verification by the program team. However, the capacity of the former and current members of the program team to fully verify this record was hindered by the absence of a universally and commonly agreed view among them about key program facts. This was because they were relying on their individual memories, not a single whole of program report that contained all the facts. This created inefficiencies for the evaluation process.

Thirdly, the absence of a single source of truth prevented the evaluation from being able to understand and assess the benefits and/or opportunity costs of the following key program activities.

- Whether and how the April 2020 report by PDAS was directly used to inform the GIS tool development. Establishing this is important because PDAS represented the first and substantial use of existing government resources to support the program, and the efficacy and contribution of this informs the technical efficiency of collaboration within government. This is also especially important because PDAS identified the top five landowning agencies - Crown Lands, DPIRD, Office of Environment and Heritage (OEH), Forestry Corporation (FC), and Water NSW (WNSW). Of these it identified that Crown Lands owned 97 percent of underutilised land.
- The reasons why DCCEEW decided to share the GIS tool for land shortlisting purposes with only two of the top five landowning agencies identified by PDAS – Crown Lands and DPIRD. This is important because this may have narrowed the supply of potentially suitable land for the program.
- The reasons why DCCEEW decided to share the GIS tool for land shortlisting purposes with government agencies beyond the top five landowning agencies identified by PDAS. This is important because despite the program investing time and effort consulting with a several agencies beyond the top five, only two of the top five (Crown Lands, DPIRD) and one other agency (PDNSW) identified shortlisted land which was subsequently subject to feasibility assessment funded by the program. This suggests that it may have been technically efficient for the program to focus on the top five agencies identified by PDAS.
- The reasons why land apparently shortlisted by agencies beyond the top five landowning agencies was not subject to feasibility assessments. For example, program literature suggests that in 2021/2022 NSW Education may have shortlisted 12 properties; Transport NSW may have identified 12 properties and proposed 3 for feasibility assessment; and TAFE NSW may have identified 10 properties. However, there is no reporting in program literature of the outcomes of these activities. Thus, it is impossible for the evaluation to assess whether these were potential benefits or opportunity costs or identify the criteria used to determine responses. This is important because identified reasons for rejecting shortlisting land for further assessment is an important part of DCCEEW's corporate knowledge for future program design and implementation.

- In 2020/21 ITP Renewables reported to DCCEEW on its screening of 11,688 properties for wind farms and 12,222 for solar farms (including duplicate properties) and advised that only two for solar farms were promising because they could be easily connected to the electricity grid. It is not clear from program literature or DCCEEW stakeholders which agencies owned these properties and whether or how the ITP report was used as an input for further decision making. It is important to understand this as DCCEEW funded this report and its application informs the technical efficiency of the program. For example, it would be helpful for program reporting to have explained why the GIS tool was continued to be developed and agencies engaged if the ITP report is correct.
- The total number of agencies engaged throughout program implementation, the nature of the engagement, and how their responses to the engagement contributed to the development of program tools, the shortlisting of properties to subject to feasibility assessment and post feasibility assessment actions. Ideally a central record of this would be prepared to ensure that the program's corporate knowledge could be transferred seamlessly within DCCEEW to inform future actions, such as potential program scaling, without the risk of duplicating past efforts. The evaluation could not identify any definitive single program document holistically recording all the agencies engaged by DCCEEW throughout the program and the results of that engagement. Various program literature suggests that between December 2021 and February 2022 nine agencies responded to DCCEEW's request to identify potentially suitable properties for REII. Of these, four agencies were fully enabled by program activities and outputs to undertake REII feasibility studies and pursue market approaches for REII projects.

To prevent these issues arising for future evaluations undertaken by DCCEEW, the evaluation has recommended improvements to the DCCEEW wide reporting system. See recommendation 5.

6.1.3 Sub KEQ 1(c): Were the risks and assumptions monitored and mitigated?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
1. How did program management arrangements support effective delivery?	1c. Were the risks and assumptions monitored and mitigated?	▪ Currency of risk register throughout program delivery ▪ Effectiveness of mitigations against risks ▪ Instances of risks being escalated where mitigations are ineffective	Good as per rubric in Appendix 1 of the Evaluation Plan	Good

Key findings: Data analysis themes

Themes	Evaluation findings
Effectiveness of risk management	▪ Program managers report strong confidence in the currency and effectiveness of the risk management system throughout the program. ▪ Program literature suggests some gaps in the risk management system including the currency of the risk register beyond 2021, integration with key program inputs, holistic recording of stakeholder engagement outcomes throughout the program, and management of potential reputational risks to government and the CCF.

1. Evidence from stakeholders

All of the project officers involved with the program agree that:

- A risk register was established at the program outset and regularly maintained and reviewed throughout the life of the program.
- Risks were appropriately characterised, owners identified, causes and impacts understood, and appropriate mitigations put in place.
- Risk owners understood their responsibilities and took appropriate action.

Despite this full agreement on the risk management framework, 75 percent of project officers consider that:

- Risks were always monitored, and adjustments to controls actioned as required.
- Where necessary risks were always escalated to an appropriate authority, manager for mitigation, monitoring and/or action.

2. Evidence from program literature

The evaluation's review of the program's risk management documentation suggests that:

- A detailed risk register was developed as part of project design. However, the risks appear to be focussed on issues related to projects going to market rather than program management and delivery risks. For example, the risk register does refer to the:
 - The PDAS research which identified the top five landowning agencies and therefore informed the main supply of potential shortlisted sites.
 - The ITP Renewables site screening report (date unclear) that of about 22,000 identified sites only 2 were promising based on network connectivity. This created a potential risk that the program scope would be very narrow.
 - How risks would be reported to and managed by the CCF governance process.
- The risk register does not seem to have been updated since 2021.
- Based on the SPACE reports provided to the evaluation for the last two years of the program, risks were reported monthly in the DCCEEW SPACE system, but not against an updated and centralised risk management plan.
- It is not clear how the program managed reputational risk to government that arises from extensive stakeholder (councils, private sector and government agencies) consultation on program aspirations which can raise expectations.
- Stakeholder engagement plans do not seem to be consistently updated and linked to the risk register in ways that clearly record:
 - The communication of program updates and progress to stakeholders who were asked to initially participate in and provide their views on the program (the market sounding follow up).
 - The communication of program outcomes to stakeholders who participated in the program beyond the market sounding stage.
 - The specific agencies engaged throughout program implementation, the nature of the engagement, and how their responses to the engagement contributed to the development of program tools, the shortlisting of properties to subject to feasibility assessment and post feasibility assessment actions.

6.2 KEQ 2: To what extent has the program been delivered on time and budget?

6.2.1 Sub KEQ 2(a): Was the program delivered on time? What were the reasons for this?

Sub KEQ 2(b): Was the program delivered on budget? What were the reasons for this?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
2. To what extent has the program been delivered on time and budget?	2a. Was the program delivered on time? What were the reasons for this?	Fidelity of actual project delivery against planned delivery	Program delivered consistently within delivery timeline and/or annual delivery plans	Program delivery was consistent with planned implementation.
	2b. Was the program delivered on budget? What were the reasons for this?	Planned versus actual program expenditure	Program delivered consistently within original program budget and/or annual program budget	Program budgeting was consistent with planned spending.

Key findings: Data analysis themes

Themes	Evaluation findings
Compliance with delivery schedule and budget	- Program delivery was consistent with planned implementation. - Program budgeting was consistent with planned spending.
Technical efficiency of program management	- Resourcing constraints prevented the program from updating the GIS tool and marketing the program to all agencies during implementation. This was an impediment to program scale. Program staff used consultants to overcome resource constraints where possible. - Despite resource constraints, the program delivered unique outputs (such as the GIS tool) and outcomes (such as REI feasibility assessments) which were ambitious in nature and received good responses from program consumers and beneficiaries (landowning agencies).

1. Compliance with planned delivery schedule

Program literature demonstrates that the following originally planned key program milestones have been completed as planned.

- Market sounding report by 1 May 2020 (complete).
- Prepare procurement strategy by 1 July 2021 (complete).
- GIS model maps long list of potential sites by 12 August 2021 (complete).
- List of prioritised land to offer to market by 31 July 2021 (complete).
- Funding for project feasibility assessment and development approval by 30 June 2022 (complete).
- Funding to support EOIs/RFPs offering approved sites to market for REII by 3 July 2025 (complete).

Documented reasons supporting the Ministerial approval of the program extension in 2023 also confirm that the program delivery remained largely on schedule as planned. For example, these reasons included the following:

- The program delivery plan endorsed by the CCF Net Zero Steering Committee was based on REII project and procurement delivery by 2025. There was a strong rationale for extending the program to 2025 to benefit from rapid public and private investment in renewable energy generation, storage and networks, to transform faster and affordable energy supply.
- The program was on track to deliver economic and environmental benefits to agencies, such as 50MW Castlereagh solar farm and 20MW Belrose battery energy storage system project, due for completion in 2023.
- The GIS tool was being used by Energy Co for identification of Renewable Energy Zones to roll out electricity infrastructure roadmap plans for the state, including transmission lines planning. Closing the program would result in ending the Service Level Agreement for GIS tool maintenance, reducing the technical efficiency of the program and its value to other agencies.
- There were untapped opportunities within Crown Land to promote Aboriginal partnership on land parcels with Aboriginal Land Claims.
- There was the potential to generate revenue for the OECC Sustainable Government team by partnering with the agencies who have reached REII project procurement stages. The revenue generation can be a source of funding for FY 2024/25 along with partnering with other government programs for co-investment opportunities.

Program reporting in 2023 demonstrates that planned program delivery remained on track since its commencement, despite the following kinds of challenges:

- The delivery of key projects like Balranald were delayed due to floods in Far West region of NSW. Consultations with Crown Land's lease holders was put on-hold because of landholders' unavailability to negotiate renewable energy development opportunity.
- The Development Application for Castlereagh solar farm faced a hurdle because of EPA's Environment Protection License at Castlereagh landfill site.
- There were long lead times from initial consultation with agencies resulting in delays to deliver expected outcomes.

2. Compliance with planned budget

Program literature demonstrates that between its commencement and June 2023, \$2.94M was allocated to fund program logic activities and outputs necessary to achieve program milestones. This included funding the services of government research bodies (PDAS) and private consultants (ITP Renewables and Price Waterhouse Coopers) to:

- Identify the supply and scope of potential government land suitable for REII.
- Assess the market appetite amongst the renewable energy and investment industries for the GIS tool and other program artefacts intended to increase market knowledge.
- Develop the GIS tool to suit the purposes of the program and government agencies who would be its consumers.
- Fund the feasibility assessments of land shortlisted by government agencies.
- Prepare a procurement strategy to be used by government agencies for REII projects on feasible land.

No further funding beyond the original \$3.4M envelope was provided in conjunction with the 2023 program extension and revised program logic. However, it was agreed that \$0.46M of accrued program funds would be carried forward to support the extension. Program literature demonstrates that that funding was intended to be allocated to the following activities and outputs necessary to achieve program milestones.

Table 13: Milestone completion

Milestone	Activity	Outcome	Planned completion
Industry projects	Eols/RFPs to take projects to market	Selection of proponent/developers and finalise lease agreements with the agencies and developers	30/6/2025
Development applications	▪ Support building network infrastructure for the proposed generation facility, and ▪ Facilitate land audit/risk assessment for Environmental Protection License	▪ Grid connection approval for network availability ▪ EPA approval for development	30/6/2025
Program Closure	End of program evaluation	Lessons learned, performance against key milestones/deliverables	30/6/2025

Program literature confirms program spending on these activities as planned.

3. Reasons for milestone and budget compliance

Based on program literature and stakeholder consultation, the evaluation has identified a range of key reasons aiding DCCEEW's capacity to implement the program schedule and budget as planned.

- The DCCEEW program level governance and risk management supported the capacity and confidence of project officers to escalate delivery risk and budget issues to their immediate superiors, namely program managers and directors. This is an important organisational characteristic supporting the technical efficiency of programs.
- There was a flexible approach to program design within a changing context. For example:
 - Despite changes in personnel and changing program context, the program pivoted flexibly to take advantage of new opportunities. This was, for example, reflected in a mid-program revision (2023) of the program logic and in the extension of the program to behind the meter rooftop solar from the original starting point of in front of the meter projects.
 - Project officers and program managers demonstrated they exhausted all opportunities to progress the program and deliver on its objectives by thinking laterally and pursuing innovation despite resource constraints.
- DCCEEW selected and consistently implemented a clear methodology to attempt to identify suitable land for REII project procurement. The program logic assisted various project officers over time to maintain this methodology in pursuit of program milestones.

4. Resourcing constraints affecting technical efficiency

Innovative programs should be seen as an opportunity to develop and embed agency expertise and knowledge for whole of government benefit and resourcing plans should reflect this. Program literature and stakeholder consultation undertaken by the evaluation suggest that throughout its term the program only received funding for part time DCCEEW staff and external consultants. This led to a range of program implementation difficulties. For example, while the program's first phase delivered a GIS portal (valued by agencies), inadequate resourcing prohibited later stage dissemination and promotion of the portal benefits within government which potentially reduced opportunities for wider and continuing benefits. Importantly DCCEEW program staff report that:

- DCCEEW's labour costs were not covered by the program and staff worked part time on the program while juggling other Sustainable Government programs.
- To achieve its full potential the program likely needed at least two fulltime staff, noting this shortfall was in part made good by the procurement of a consultant for the program.
- As the team progressed through the program and encountered barriers, their resources were not sufficient to resolve all issues, such as updating the GIS tool and marketing the program to all landowning agencies.
- Time was also a constrained resource, with the original two-year program timeframe being insufficient to accommodate program design, planning and start up.

5. Technical efficiency

Technical efficiency requires that goods and services be produced at the lowest possible cost. This is a key component of cost-effectiveness which is the measure of how efficiently the outcomes of a program were achieved.

Inputs and outputs

The cost of the program (primary input) was \$3.4M, spent between 2001 and 2005. For this cost, the activities (outputs) of the program have several positive characteristics supporting technical efficiency.

- *They are unique.* The program was an innovative pilot which undertook new research and produced new data sets, knowledge, tools, and pathways for agencies to use to advance REI projects in support of the government's New Zero Plan. This is a clear example of NSW Government agencies leading by example.
- *They are ambitious in nature.* The program was seeking to change the opportunities for NSW government owned underutilised land to be adapted to uses that delivered intergenerational welfare (reduced carbon emissions). By following a clear methodology for shortlisting and testing the feasibility of land for the intended purposes the program managed its ambition to maximise impact.
- *They have wide reach.* The program began by scoping the total supply of underutilised government owned land.
- *They attract good responses.* The program is highly valued by the consumers of its outputs. This is particularly the case for landowning agencies using the program outputs to maximum effect. See the discussion in section 6.3 which deals with program effectiveness and value to consumers.

The evaluation notes that program funding was used to undertake REI feasibility assessments at 24 private properties leased from NPWS in Kosciusko National Park. The DCCEEW program team has advised the evaluation that the program funded these feasibility assessments to support the economic and sustainability objectives of the NSW Regional Growth Development Corporation (RGDC) and as a result private property owners were not asked to contribute to assessment costs even though they would potentially commercially benefit from this investment of public funds. Given the objectives of the RGDC, the general technical efficiency of spending public funds for private benefit is a broader matter for NSW Government to consider and beyond the scope of this evaluation.

6.3 KEQ 3: To what extent was the program design appropriate to the context?

6.3.1 Sub KEQ: To what extent did the program support agencies to overcome the barriers to using surplus lands for renewable energy infrastructure?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
3. To what extent was the program design appropriate to the context?	To what extent did the program support agencies to overcome the barriers to using surplus lands for renewable energy infrastructure?	Level of agency satisfaction with the toolkit	The level of satisfaction reported by Crown Lands as it owns 97% of government surplus land	Crown Lands advises that the toolkit was essential to its capacity to pursue renewable energy projects
		Level of agency satisfaction with the funding, support and technical advice provided	The level of satisfaction reported by Crown Lands as it owns 97% of government surplus land	Crown Lands advises that the toolkit was essential to its capacity to pursue renewable energy projects

Key findings: Data analysis themes

Themes	Evaluation findings
Effectiveness of program activities and outputs in assisting government agencies achieve program outcomes	▪ Program outputs delivered the following intermediate outcomes consistent with the program logic: ➢ Feasibility assessments of 73 shortlisted properties from 2021-24. Of these 49 are owned by government (Crown Lands, PDNSW, DPIRD and NPWS) and 24 are privately owned on land leased from NPWS. ➢ The feasibility assessments identified 52 properties of which 31 are government owned. Of these 2 progressed to market tender for REI projects, and 3 are currently subject to funding applications for REI project development. ▪ Landowning agencies (program consumers and beneficiaries) report that: ➢ The program was necessary for them to advance REI projects, enabled beneficial networking across government and the private sector, encouraged innovation by agencies and encouraged renewable energy policy ambition. ➢ Program implementation was constrained at an early stage of implementation because of a lack of (a) clarity about the policy framework informing the program and (b) co-design with them prior to GIS tool development to enable a better understanding of program scope.
Allocative efficiency (value to consumers) of achieved program activities and outputs	▪ Consumers of the program (landowning agencies) place a high intrinsic value on it and are supportive of its continuation.

1. Effectiveness of program activities and outputs in assisting government agencies achieve program outcomes

There are three key indicators of the effectiveness of program activities and outputs which the evaluation has considered.

- The extent to which program outputs influenced actions by agencies to achieve program outcomes (program influence).
- The extent to which agencies chose to progress shortlisted land to further stages – feasibility assessment and/or market tender (use of program outputs to achieve intermediate outcomes).
- The limitations on effectiveness.

2. Program influence

The opinions of landowning agencies about the program is the key determinant of the influence of the program because:

- The program logic states that the purpose of program activities and outputs (within DCCEEW's control) is to influence actions by landowning agencies to achieve program outcomes (outside DCCEEW's control).
- Landowning agencies are the ultimate program consumers (beneficiaries), and the extent of the benefit depends on how they have responded to the program.

Consultations with landowning agencies undertaken by the evaluation has identified the following key evidence supporting the effectiveness of the program.

The program was necessary for renewable energy projects to advance

- Crown Lands, DPIRD and PDNSW advise that in the absence of the support provided through the program, REII projects now active pursuant to the program would not have commenced or would not have progressed as far as they have. This support includes the program's artefacts, funding provided under the program for feasibility assessments, and support provided by program staff and consultants.
- PDNSW contend the program removed internal barriers to enable projects to proceed more quickly, particularly through the provision of funding for feasibility and grid connection assessments.
- Crown Lands advised that its executive endorsed Crown Lands Strategic Plan 2031 makes no reference to utilising Crown land for renewable energy investment and that the REII Program provided a basis to persuade the agency's executive that it should pursue such opportunities on Crown land. This includes the 50 year pipeline of renewable energy projects it is developing.

Beneficial networking across agencies and the private sector

- All agencies agreed that the program was very effective in building relationships across government to facilitate renewable energy investment, including building technical knowledge and capacity around tendering for opportunities. These were linkages that would not have been established in the absence of the program.
- The technical consultant procured to assist with program delivery was very effective in supporting agencies through feasibility assessments and tendering.
- This networking allowed for 'triaging' of participating agencies to other DCCEEW Sustainable Government programs, including rooftop solar programs, to progress broader agency emission savings and energy cost reduction objectives.
- The program also introduced agencies to the renewable energy development sector including potential investors at both the national and international levels. This should assist in maintaining the sector's interest in pursuing renewable energy projects on government lands in the future.
- It is noteworthy that international corporations expressed interest in market offers and that while renewable energy developers might typically prefer to invest on private land, there are some keen to establish business with government and pay a premium for the privilege.

Encouraging innovation by agencies

- The program encouraged DPIRD to be innovative by pursuing a research venture with Monash University and the ANU to assess thermal vs rated grid transmission capacities at agriculture research stations where REII feasibility assessments have been conducted and where future power generation might exceed rated transmission system capacity.

Encouraging renewable energy policy ambition

- The program has provided a foundation for the incorporation in the March 2025 Net Zero Government Operations Policy of a whole of government requirement for agencies to pursue opportunities for renewable energy investment on government land to contribute to emissions savings. The Sustainable Government Branch in DCCEEW advises that this is at least in part a consequence of its promotion of the achievement of the REII program to its DCCEEW policy colleagues. This was confirmed by the evaluation's consultations with DCCEEW policy staff.

3. Use of program outputs to achieve intermediate outcomes

Program literature and stakeholder consultation undertaken by the evaluation demonstrates that the application of the GIS tool and user guide, DCCEEW engagement with agencies to shortlist properties for REII feasibility assessment, the funding of feasibility assessments, and other program support for agencies led to the intermediate outcomes described in Table 14. These outcomes are consistent with the intention of the Program Logic.

Table 14: Outputs and intermediate outcomes

Outputs	Intermediate outcomes
GIS tool, user guide and too application support Feasibility assessments of shortlisted properties	Feasibility assessments of seventy-three shortlisted properties from 2021-24: ▪ Five Crown Lands properties at Balranald (November 2021) ▪ One PDNSW (WAMC) waste facility at Belrose (Mid 2022) ▪ Twenty-eight Crown Lands properties managed by 7 councils across NSW (July 2023) ▪ Five DPIRD properties across NSW (July 2023) ▪ Ten NPWS properties in Kosciusko National Park (KNP) (July 2024) ▪ Twenty-four private properties leased from NPWS in KNP (July 2024)
Identification of properties suitable for REI following feasibility assessments	Feasibility assessments identified fifty-two properties as feasible for REI: ▪ One Crown Lands property at Balranald ▪ One PDNSW (WAMC) waste facility at Belrose ▪ Twenty-two Crown Lands properties managed by 7 councils across NSW ▪ Five DPIRD properties across NSW ▪ Two NPWS properties in Kosciusko National Park (KNP) ▪ Twenty-one private properties leased from NPWS in KNP
Facilitation of market outcomes for REI feasible properties	REI projects went to market at two properties as a result of program feasibility assessments: ▪ One Crown Lands property at Balranald. A proponent was selected to develop a solar and wind generation but the project did not proceed because the land was converted from leasehold to freehold. ▪ One PDNSW (WAMC) waste facility at Belrose. In 2024 the property was leased to a proponent for the development and operation of a BESS facility.
Facilitation of REI project development at REI feasible properties	REI projects at three properties identified during feasibility assessments are being further developed: ▪ DPIRD/DCCEW have applied for ARENA funding to develop microgrids at three DPIRD properties (Port Stephens Fisheries Institute, Tamworth Agricultural Institute and Orange Agricultural Institute) as a result of the feasibility assessments (2024)

4. Limitations on effectiveness

Based on the responses of program consumers and beneficiaries (landowning agencies) two primary issues constrained program effectiveness at the early stage of program implementation. These were:

- A general lack of clarity within government about the policy framework informing the program.
- A lack of program co-design with them prior to the GIS tool development, which hindered their initial understanding of program scope.

Clarity about policy framework informing the program

Program literature and stakeholder consultation undertaken by the evaluation suggests that during the program planning stage there was limited conversation within government about what underutilised land means for the purposes of the program logic and objectives. It would have been preferable for this to have occurred as interpretations of surplus land differed across and within agencies, and most importantly because a whole of government land surplus divestment program led by Public Asset Utilisation Taskforce had been completed five years earlier and shrunk the portfolio of available surplus land for many agencies.

The inclusion of the Public Asset Utilisation Taskforce outcomes in program design may have offered the program a fully informed basis from which to target different achievable priorities instead of pursuing a process of longlisting and then shortlisting land from first principles. There also seemed to be limited discussion within government about the specific opportunities and limitations of REII which would have been preferable to enable the program to more clearly situate REII in the hierarchy of competing core agency priorities for land management.

Some of the consequences of these omissions for program implementation were that:

- The program objectives and scope between 2021-23 were beyond the reach of the program and participating land owning agencies. For example, though funded by the CCF and seeking to deliver emissions savings, the program also sought to achieve objectives beyond the scope of the CCF including revenue generation from underutilised government land and reduced government, business and household power costs.
- There were no program guidelines at an early stage informing participating agencies of the program's objectives and scope. Consequently, for half the program term participants were unclear about what could be funded under the program and what level of project documentation was required of participating agencies. This included a lack of clarity around whether underutilised land should be sold or leased to renewable energy developers.

Understanding program scope via co-design with agencies prior to the GIS tool development

Given that the program purpose was to give other landowning agencies (the consumers of the program) a set of tools to enable them to pursue REII projects, it was important for DCCEEW to engage with these consumers prior to developing the program and/or developing the GIS tool. Program literature and consultation with agencies suggests that this did not occur. Although it should be noted that representatives of consumer agencies consulted by the evaluation were not involved in the original development of the program and thus may not be fully informed about the development process.

Early co-design would have assisted DCCEEW ensure that program funding pursued achievable tasks only, rather than avoidable experimental ones with a higher risk of reducing the efficiency of program spending. While the program was a pilot and some degree of experimentation would be expected, it is still relevant for program management to identify through early co-design risks to be avoided. DCCEEW stakeholders report that they consulted with Crown Lands prior to the GIS tool development and to this extent DCCEEW appropriately sought to reduce experimentation. Nevertheless, program literature and stakeholder consultation suggests that it was only after the development of the GIS tool and during consultation with agencies about the application of the GIS tool that certain program limitations were identified. It would have been preferable for these issues to have been identified at an earlier stage to better define program scope at the outset.

For example, Crown Lands suggests that it was only after the development of the GIS tool that it had the opportunity to advise DCCEEW that its capacity to participate in the program was constrained because of a range of legal and operational constraints including that:

- Aboriginal land claims, native title and leasehold conversions created complexity for alternative land uses including REII, but revenue sharing was one important option to address this.
- Crown Lands owned land managed by Councils would typically require amendment to the relevant plan of management to permit renewable energy infrastructure, and this can be a lengthy and uncertain process.
- Resourcing constraints limited the extent it could follow through on opportunities despite the program developing a bespoke REII critical pathway for Crown land.
- It is required to pursue a range of commercial uses, further limiting its capacity to provide a more exclusive focus on renewable energy projects.

5. Allocative efficiency (value to consumers)

The meaning of allocative efficiency and its application in this evaluation

A traditional approach to assessing whether any program is an efficient allocation of resources involves examining whether the spending is maximising the economic well-being (welfare) of society. The efficient allocation of resources usually occurs in a competitive, freely functioning market when supply is in equilibrium with demand

and therefore the marginal cost of government expenditure is equal to the marginal benefit gained by people using it. However, this approach is not applicable to the program because:

- The program is a pilot and therefore does not lend itself to the assessment of whole of life cost issues that would form the basis of determining allocative efficiency.
- The primary consumers (beneficiaries) of program outputs are other government landowning agencies using program outputs to deliver public policy outcomes. They are not purchasing program outputs for use in a freely functioning market.
- Other than reviewing the market sounding report by ITP Renewables commissioned by DCCEE during the program planning stage, the evaluation has not had the opportunity to understand how potential private sector beneficiaries of program outcomes, such as a pipeline of tendered REI projects, value the program.

Given this, the evaluation has used a proxy measure of allocative efficiency, which is the intrinsic value of the program. This is how consumers (landowning agencies applying the program outputs to achieve program outcomes), value and support the program.

Intrinsic program value

The evaluation discussion and findings about delivery and effectiveness of program activities and outputs, and the ways in which agencies have used outputs to achieve outcomes, demonstrates that agencies using program outputs to their fullest extent place a high intrinsic value on it. In particular Crown Lands, DPIRD and PDNSW have advised the evaluation that:

- They consider the GIS portal to be a sophisticated and innovative piece of work for its time (though now potentially superseded by other systems such as Land IQ).
- In the absence of the support provided to them by the program, REI projects taken forward by them would not have commenced or would not have progressed as far as they have. This support includes the program's artefacts, funding provided under the program for feasibility assessments, and support and technical advice provided by program staff and consultants.
- The program removed PDNSW internal barriers to enable projects to proceed more quickly, particularly through the provision of funding for feasibility and grid connection assessments.
- The program enabled Crown Lands teams to persuade the Crown Lands executive to pursue REI opportunities on Crown land.
- The program provided needed knowledge and advice to fill gaps in agency skills and capacity around renewable energy investment, including growing in-house agency skills and capacity to pursue market opportunities for renewable energy investment.

Based on its positive experience with the program, Crown Lands is particularly supportive of a dedicated unit within DCCEE to provide expert advice to agencies wishing to pursue renewable energy investment and innovation including the roll out of battery systems on smaller land parcels. Crown Lands considers that this resource would significantly accelerate the rate at which its projects could be pursued, thereby assisting the delivery of emission savings, revenue benefits and broader regional economic outcomes.

7. Evidence for key findings – outcome evaluation

7.1 KEQ 4: What contribution has the program made to the achievement of net zero emissions by 2050? (for Net Zero programs)

7.1.1 Sub KEQ 4(a): What is projected emission reduction that will be achieved once all projects tendered under the pilot are operational and all the feasibility assessments have been implemented?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
4. What contribution has the program made to the achievement of net zero emissions by 2050? (for Net Zero programs)	4a. What is projected emission reduction that will be achieved once all projects tendered under the pilot are operational?	Projected emissions reductions from feasibility assessments conducted along with any operational projects	NA	▪ Of the 52 properties identified as suitable for REI as a result of program funded feasibility assessments there is available data about estimated emissions savings for 50. For the 27 Crown Lands and DPIRD properties assessed as feasible for REI the collective estimated emissions savings range from 5,332 to 14,557 tCO₂-e/year. ▪ For the 23 NPWS and private properties in KNP assessed as feasible for REI the collective estimated emissions savings range from 665 to 716 tCO₂-e/year. ▪ Of the 27 Crown Lands and DPIRD properties, 3 DPIRD projects being taken forward from the feasibility stage for further development. The collective potential emissions savings for these 3 projects range from 2,994 to 10,314 tCO₂-e/year.

Key findings: Data analysis themes

Themes	Evaluation findings
Scale of potential identified emission reductions facilitated by the program	See key findings above. In addition, DCCEEW reports that the program has facilitated: ▪ The potential conversion of PDNSW's Castlereagh waste facility to REI representing estimated emissions savings of 56,450 tCO₂-e/y. The project did not proceed. ▪ The potential conversion of a Crown Lands property at Balranald to a REI. There is no available emissions savings data. The project did not proceed. ▪ The potential conversion of PDNSW's Belrose waste facility to REI. The property has been leased to a private developer in 2024 for the establishment and operation of a BESS facility. There is no available emissions savings data.

1. Approach to estimating emissions reductions

The methodology for estimating emission savings has been agreed with DCCEEW during the evaluation design stage and is explained in detail in the methodology section of this report. The methodology is based on (a) the evaluation relying on the estimates identified in feasibility assessments of properties funded by the program (conducted by ITP Renewables and ARUP) and any available data from tendered REI projects; and (b) adding together these estimates to identify one cumulative sum or a series of sums where possible.

2. Results of the ITP Renewables and ARUP feasibility assessments

ITP Renewables assessments (2022-23)

The program funded feasibility assessments of 33 properties owned by Crown Lands and DPIRD. Of these, 27 properties were deemed suitable for REI based on the use of solar photovoltaic (solar PV) and/or BESS and recommended for further consideration and/or actions. The ITP Renewables estimated emissions savings from these 27 properties has been relied on by the evaluation.

Of these 27 properties, 3 owned by DPIRD have been taken forward as part of an application for funding from ARENA for a microgrid development. The evaluation has represented these in a separate assessment of projects being taken forward. This enables a current comparison of the initial potential impact of the program (based on 27 properties) compared with its ongoing potential impact (based on 3 properties).

ARUP assessments (2024)

The program funded feasibility assessments of 34 properties within the Kosciusko National Park (KNP), which is part of a special activation precinct overseen by the Regional Growth NSW Development Corporation (RGDC). The stated objectives of the RGDC include promoting economic development and sustainability in regional areas by facilitating investment and streamlining planning approvals. The DCCEEW program team advised the evaluation that the program funded these feasibility assessments to support RGDC objectives. Of these properties, 10 are government owned (owned by the NPWS), and 24 are privately owned on land leased from NPWS. The DCCEEW program team has advised that RGDC, NPWS, or owners of private properties did not contribute to feasibility assessment costs.

Of these 34 properties, 23 were deemed suitable for REI based on the use of solar photovoltaic (solar PV) and/or BESS and recommended for further consideration and/or action. ARUP estimated emissions savings from these 23 properties has been relied on by the evaluation.

3. REI projects going to market

- *Balranald*. The program funded a feasibility assessment of a Crown Lands property at Balranald and Crown Lands took it to market as a solar and wind project. As agreed with DCCEEW, this project has not been included in the evaluation's assessment as it did not proceed due to the conversion of the land from leasehold to freehold. Also, the evaluation did not have access to any project documents containing estimated emissions savings.
- *Belrose*. The program funded a feasibility assessment of this PDNSW (WAMC) landfill for conversion to a BESS facility. In 2024 the property was leased to a private developer for this purpose. This has not been included in the evaluation's assessment as there is no available data related to estimated emissions savings.
- *Castlereagh*. The proposed conversion of PDNSW's Castlereagh landfill reuse project into a solar PV and BESS facility occurred in conjunction with the commencement of the program in 2021. A Ministerial briefing note suggests that the estimated savings from this project was 56,450 tCO₂-e/y. The DCCEEW program team advised the evaluation that the project was considered to be the first deliverable under the program, even though the development work for the project had been undertaken by PDNSW prior to program commencement. The Castlereagh project did not proceed to market because of land contamination issues regulated by the NSW Environment Protection Authority.

4. Limitations on calculating one cumulative sum of estimated emissions savings from feasibility assessments

The evaluation has been unable to capture the ITP Renewables and ARUP estimates in one cumulative sum because ITP Renewables and ARUP used different methodologies, and therefore their respective conclusions are not directly comparable. As a result the evaluation has assessed their respective data separately.

5. Estimated emissions savings from Crown Lands and DPIRD deemed feasible for REI

Table 15 includes data related to the 27 Crown Lands and DPIRD properties for which ITP Renewables assessed estimated emissions savings. The range of potential emissions reductions is based on the varying application of minimum and maximum parameters in the ITP Renewables feasibility assessment methodology.

For DPIRD projects these parameters are the:

- Minimum emissions reductions based on a short payback system (between 8 and 12 years) comprising solar photovoltaic (PV with capacity of 100 kWh)
- Maximum emissions reduction based on a high self-generation system (70 percent generation) with a longer payback system (13-15 years) comprising solar PV with capacity of 254 kWh and a smart BESS with nameplate storage capacity of 1,400 kWh.

For Crown Lands projects on council managed land these parameters are the:

- Solar PV system with high NPV (tCO₂-e)/y saving.
- Solar PV system with high NPV and BESS (tCO₂-e)/y saving.

Table 15: Potential emissions reductions from ITP Renewables assessments

DPIRD property	Number of properties assessed as REI feasible	Min (tCO ₂ -e)/y saving (solar PV)	Max (tCO ₂ -e)/y saving (solar PV and BESS)
Elizabeth Macarthur Agricultural Institute	1	387	996
Orange Agricultural Institute	1	959	3958
Port Stephens Fisheries Institute	1	353	1912
Tamworth Agricultural Institute	1	1682	4444
Wagga Wagga Agricultural Institute	1	1545	2880
<i>Subtotal</i>	5	4926	14190
Council managing Crown Lands property	Number of properties assessed as REI feasible	Solar PV system with high NPV (tCO ₂ -e)/y saving	Solar PV system with high NPV and BESS (tCO ₂ -e)/y saving
Edward River Council	5	10.7	5.8
Hay Shire Council	1	23	23
Leeton Shire Council	2	50.9	50.8
Lockhart Shire Council	1	2	2
Orange City Council	3	163	149.4
Port Macquarie Council	1	83.6	81.3

DPIRD property	Number of properties assessed as REII feasible	Min (tCO ₂ -e)/y saving (solar PV)	Max (tCO ₂ -e)/y saving (solar PV and BESS)
Queanbeyan Palerang Regional Council	9	72.7	64.5
		405.9	376.8
<i>Subtotal</i>	22		
Total	27	5331.9	14,556.8

6. Estimated emissions savings from NPWS and private properties in KNP deemed feasible for REI

Table 16 includes data related to the 23 properties in the KNP for which ARUP assessed estimated emissions savings. Table 16 demonstrates the range of potential emissions reductions based on the varying parameters in the ARUP feasibility assessment methodology. An overall assumption underpinning the ARUP methodology is that the project lifetime over which emission savings are estimated is 6 years. Within this framework the ARUP methodology applied three parameters to assess the feasibility of solar PV and BESS projects. Those parameters are as follows:

- *A maximum solar PV capacity based on the available roof space of properties considering any limitations associated with shading and the presence of other installations.* This assumes that a maximum solar PV capacity would be achieved if property owners invested in infrastructure to achieve that capacity.
- *An optimised solar PV scenario.* ARUP found that the infrastructure cost of achieving maximum solar PV capacity was invariably too high for property owners and as a result developed an optimised solar PV scenario for each site. This scenario is based on the following assumptions:
 - The solar PV would generate at least 50 percent of a site's energy consumption needs. The other 50 percent of generation would be exported to the grid.
 - Each system should not be smaller than 4 kW. This limit on the system size was set because systems smaller than 4 kW are usually more expensive on a \$/kW basis.
 - The payback period should not be more than 6 years. This period was considered the longest acceptable to meet investor expectations.
- *An optimised solar PV and BESS scenario.* This assumes that the BESS size was one that could increase the self-consumption of energy generated in the optimised solar PV scenario (50 percent) by a further 10 percent. This assumption is based on ARUP's understanding that behind the meter BESS is able to charge during times of excess solar PV generation and discharge that stored energy back into the site during times when the loads are high and generation is low (i.e. in the evening). This serves to increase the self-consumption of on-site renewable energy generation and enable customers to participate in energy arbitrage by discharging the BESS during times when electricity tariffs are highest (in the case of Time of Use energy tariffs).

The key to table 16 is as follows.

NR	Not recommended by ARUP
NA	Reported by ARUP as not applicable
C	This data is expressed in the ARUP report as confidential and cannot be reported here

Table 16: Potential emissions reductions from ARUP assessments

#	Landowner	Property assessed as REII feasible	tCO2-e savings over project lifetime (6 years)		
			Maximum solar PV capacity	Optimised solar PV scenario	Optimised solar PV and BESS scenario
	Government				
1		NPWS Perisher Sewerage Treatment Plant	226	226	257
2		Compost facility	15.44	13.27	17.82
	<i>Subtotal</i>	2	241.44	239.27	274.82
	Lodgers - privately owned buildings				
3		Kahane Lodge	NR	9.35	NA
4		Perisher Manor Hotel	NR	47.85	56.78
5		Kosciuszko Alpine Club	NR	11.55	NA
6		Lampada Ski Club	15.74	3.88	NA
7		Dianella Ski Club	5.34	3.99	NA
8		Mirrabooka Ski Lodge	NR	14.79	NA
9		Maranatha Lodge	NR	6.07	NA
10		Ullr Ski Lodge	NR	12.2	NA
11		CSIRO Ski Lodge	27.42	21.7	25.52
12		Salzburg Apartments	NR	17.65	NR
13		Marritz Alpine Inn	NR	13.96	NA
14		Corroboree Lodge	NR	8.65	NA
15		The Man From Snowy River Perisher Hotel	272.82	217.26	260.8
16		Perisher Huette Ski Lodge	8.62	6.68	NA

#	Landowner	Property assessed as REII feasible	tCO2-e savings over project lifetime (6 years)		
			Maximum solar PV capacity	Optimised solar PV scenario	Optimised solar PV and BESS scenario
17		The Lions Lair	NR	4.69	NA
18		Smiggins Hotel	NR	21.37	24.96
19		Smiggins Chalet	NR	11.22	NR
20		Deanes Ski Rider Hotel Motel	93.2	60.05	72.82
	<i>Subtotal</i>	18	423.14	492.91	440.88
	Perisher Properties (confidential)				
21		Perisher Centre	C	C	C
22		Ski Tube Building	C	C	C
23		Perisher Workshop	C	C	C
	<i>Subtotal</i>	3	0	0	0
	Total	23	664.58	732.18	715.7

7. Projects taken forward from feasibility assessment stage

Table 17 includes data for the 3 DPIRD properties which have been taken forward in a funding application to ARENA. Table 17 applies the same minimum and maximum emission saving estimates calculated by ITP Renewables in Table 15. For DPIRD projects these parameters are the:

- Minimum emissions reductions based on a short payback system (between 8 and 12 years) comprising solar photovoltaic (PV with capacity of 100 kWh)
- Maximum emissions reduction based on a high self-generation system (70 percent generation) with a longer payback system (13-15 years) comprising solar PV with capacity of 254 kWh and a smart BESS with nameplate storage capacity of 1,400 kWh.

It should be noted that the estimated emissions savings for projects taken forward are likely to be higher with the inclusion of future available data from the:

- PDNSW Belrose BESS project.
- Any of the Crown Lands and other DPIRD properties assessed by ITP Renewables which are eventually taken forward.
- Any of the NPWS and private properties assessed by ARUP which are eventually taken forward.

Table 17: Potential emissions reductions from projects taken forward after feasibility testing

#	DPIRD property	Project type	Project stage	Min (tCO2-e)/y saving	Max (tCO2-e)/y saving
1	Orange Agricultural Institute	Solar PV and microgrid	ARENA funding request	959	3958
2	Port Stephens Fisheries Institute	Solar PV and microgrid	ARENA funding request	353	1912
3	Tamworth Agricultural Institute	Solar PV and microgrid	ARENA funding request	1682	4444
Total	3			2994	10314

7.1.2 Sub KEQ 4(b): What are the potential emission reductions that could be achieved if the pilot was scaled and delivered through to 2030?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
4. What contribution has the program made to the achievement of net zero emissions by 2050? (for Net Zero programs)	4b. What are the potential emission reductions that could be achieved if the pilot was scaled and delivered through to 2030?	As 97% of suitable land is owned by Crown Lands any capacity to scale the program will depend on these factors ▪ The extent to which DCCEEW has already exhausted the process of land identification, shortlisting, and feasibility assessment within the Crown Lands. ▪ The extent to which Crown Lands already deemed feasible under the program has yet to realise its REII potential. ▪ The extent to which LLS landholdings might augment suitable and available land for renewable energy investment.	NA	▪ There is insufficient data to assess future potential emissions savings ▪ Crown Lands is developing a 50-year pipeline of potential future renewable energy projects which might include Crown Land subject to claim and suitable and available LLS-managed land.

Key findings: Data analysis themes

Themes	Evaluation findings
Opportunity for further scaling based on program artefacts and legacy	▪ Scaling of the program would likely be primarily focused on assets owned and managed by Crown Lands as it owns 97% of surplus land, though an opportunity exists for Crown Lands to partner with LSS to extend suitable and available land. ▪ Crown Lands is developing a 50-year pipeline of potential future renewable energy projects. ▪ Crown Lands wishes to pursue opportunities for renewable energy investment on Crown land subject to Native Title and/or Aboriginal land claims through negotiated Aboriginal Land Agreements. ▪ There is potential for the program to evolve to include smaller land parcels owned by a range of agencies which are potentially suitable for BESS installation where this has the potential to contribute to CCF outcomes.

1. Estimation of benefits if the program was scaled

There is insufficient available data to enable the evaluation to assess future potential emissions savings from projects that may occur in the future if the program was scaled. However, consultations with DCCEEW and the consumers of the program (landowning agencies) suggest that there are key reasons for DCCEEW to continue and scale the program. These are discussed below.

- *The objectives of the program are now underpinned at a whole of government policy level through the Net Zero Government Operations Policy.* This requires net zero transition planning in the long term customised to each agency, including a requirement to investigate renewable energy on agency land and property. Maintaining the program's GIS tool maybe to support this may too costly. The Land IQ or other application may be better placed to perform a GIS function.
- *Significant opportunities remain for renewable energy infrastructure on government-owned surplus land, primarily on land administered by Crown Lands.* The program identified that 97% of suitable land is Crown Lands administered. Crown Lands has advised it is developing a 50-year pipeline of potential future renewable energy projects, including very large wind farms in the Western Division with as many as 500 to 700 turbines, and may be able to progress as many as 5 market-based tenders per annum. Crown Lands has also advised it is working with Local Land Services (LLS) to identify LLS lands which might also be suitable for renewable energy investment. In addition, Crown Lands wishes to pursue renewable energy investment opportunities on Crown Land subject to Native Title and/or Aboriginal land claims through negotiated Aboriginal Land Agreements.
- *Based on its positive experience with the program, Crown Lands is supportive of a dedicated unit within DCCEEW to provide expert advice to agencies wishing to pursue renewable energy investment and innovation including the roll out of battery energy storage systems (BESS) on smaller land parcels.* Crown Lands considers that this resource would significantly accelerate the rate at which its projects could be pursued, thereby assisting the delivery of emission savings, revenue benefits and broader regional economic outcomes.
- *One option for DCCEEW is to provide this resource by augmenting an existing team in DCCEEW's Government Sustainability section.* In addition, DCCEEW could bolster the renewable energy investment governance framework commencing with the establishment of a cross agency working group (including Energy Co) which could report to the group of Executive Directors reporting through to the Deputy Secretary-level Climate Change Network.
- *Further consideration could also be given to the role of the new NSW Energy Security Corporation in assisting agencies to secure private sector investment in renewable energy on government land.* The corporation has been allocated about \$1 billion to invest in energy generation and other infrastructure to promote energy security within the renewable and broader energy system. The program could be scaled to assist the corporation identify renewable energy projects for investment.

7.2 KEQ 5: How did the program ensure NSW Government leads by example?

7.2.1 Sub KEQ: To what extent are NSW agencies likely to continue progressing renewable energy development on surplus land following the conclusion of the program?

Key findings: KEQs and assessment

KEQ	Sub KEQ	Indicator	Target	Evaluation findings
5. How did the program ensure NSW Government leads by example?	To what extent are NSW agencies likely to continue progressing renewable energy development on surplus land following the conclusion of the program?	Self-reported intention to progress REII projects beyond the pilot (i.e., without ongoing support)	At least 2 of the 3 agencies which have undertaken feasibility assessments	Crown Lands, DPIRD and PDNSW report they are pursuing, and will continue to pursue projects beyond the pilot
		Self-reported likelihood of progressing REII projects if support was continued	At least 2 of the 3 agencies have undertaken feasibility assessments	▪ Crown Lands, DPIRD and PDNSW have undertaken feasibility assessments of projects during the program term ▪ Crown Lands, DPIRD and PDNSW would support DCCEEW continuing to provide expert advice on renewable energy projects
		Instances of agencies using toolkit	At least 2 of the top 5 landowning agencies (Crown Lands, Office of Environment and Heritage, Forestry Corporation, Water NSW and Department of Primary Industries)	Crown Lands, DPIRD and PDNSW used program tools to identify and pursue projects
		Instances of agencies progressing REII projects	At least 2 of the top 5 landowning agencies	Crown Lands, DPIRD and PDNSW used program tools to identify and pursue projects

Key findings: Data analysis themes

Themes	Evaluation findings
Continuation of program benefits	▪ Crown Lands, DPIRD and PDNSW are all supportive of DCCEEW having a continued role in providing expert advice to guide renewable energy projects. ▪ DCCEEW can continue to make the program tools available and customisable for individual agencies. ▪ In the future Land IQ and Energy Co's own data systems are likely to make the GIS portal redundant.

There is no further need for the evaluation to explain these findings as the evidence supporting them is discussed in detail elsewhere in the report.

7.3 KEQ 6: What were the unanticipated outcomes of the program, both positive and negative?**Key findings: Data analysis themes**

Themes	Evaluation findings
Opportunity costs	▪ An opportunity cost was that the program increased potential future revenue streams for holders of long-term Crown Land leases in the Western Division and motivated these leaseholders to convert their leasehold titles to freehold titles to fully capture these revenue streams. This hindered the delivery of renewable energy projects under the program.
Unanticipated benefits	▪ An unanticipated benefit was that the program enabled agencies to develop new knowledge about the value of BESS and encouraged innovation related to renewable energy investment amongst participating agencies.

There is no further need for the evaluation to explain these findings as the evidence supporting them is discussed in detail elsewhere in the report. There are no program indicators in the 2023 MEP applying to this KEQ.

Appendix 1 – Applicable rubrics from the 2023 MEP

Criteria: Program logic

Related KEQ: How well did the program logic hold true throughout implementation? Was it updated as the program and context changed?

Standard	Description
Excellent	A clear program logic that articulates the expected causal pathways between outputs to outcomes required to achieve the program's objectives was established and regularly reviewed throughout the life of the program. Program staff used the program logic to maintain a shared understanding of the outcomes and how they would be delivered on. Where context and conditions changed, program staff used a collaborative process to update the program logic, and changes were reflected in the program's implementation.
Good	A clear program logic with no logical gaps was established and regularly reviewed throughout the life of a program. Program staff used the program logic as a point of reference to maintain a shared understanding of the program's outcomes and how they would be delivered on. Where context and conditions changed, program staff used a collaborative process to update the program logic.
Satisfactory	A clear program logic with no, or insubstantial logical gaps was established for the program. Sometimes program staff used the program logic as a point of reference.
Not satisfactory	There was no program logic developed for the program OR The program logic did not demonstrate how the program would achieve its planned objectives based on a series of outcomes OR There were substantial logical gaps in the program logic that were not resolved OR The program logic was not updated and is not reflective of what was delivered.

Criteria: Governance arrangements

Related KEQ: How well did the governance arrangements provide oversight and direction?

Standard	Description
Excellent	Clear governance arrangements have been established for the program including the identification of an evaluation sponsor. The governance arrangements are formalised in terms of reference, with roles and responsibilities including decision making clarified. The governance arrangements have supported programs by utilising data and reporting to make decisions and provide direction. Program teams have supported the operation of these governance arrangements by providing timely and accurate reporting and seeking guidance and direction where needed. Decisions and changes are clearly documented and provide clarity on how the program has evolved over time.
Good	Governance arrangements have been established for the program including the identification of an evaluation sponsor. The governance arrangements are formalised in terms of reference. The governance arrangements have utilised data and reporting to make decisions. Program teams have supported the operation of these governance arrangements by providing reporting. Most decisions and changes are documented and provide some indication on how the program has evolved over time.

Standard	Description
Satisfactory	Some governance arrangements are in place for the program including the identification of an evaluation sponsor. The governance arrangements have sometimes utilised data and reporting to make decisions. Program teams sometimes support the operation of these governance arrangements by providing reporting. Decisions and changes are occasionally documented.
Not satisfactory	It is unclear what governance arrangements are in place for the program. It is unclear how decisions have been made. There is limited documentation on how the program has evolved over time.

Criteria: Risk management

Related KEQ: How well were the risks monitored and managed?

Standard	Description
Excellent	A risk register was established at the program outset and regularly maintained and reviewed throughout the life of the program. Risks were appropriately characterised, owners identified, causes and impacts understood, and appropriate mitigations put in place. Risk owners understood their responsibilities and took appropriate action. Risks were always monitored, and adjustments to controls actioned as required. Where necessary risks were always escalated to an appropriate authority.
Good	A risk register was established and regularly maintained and reviewed throughout the life of the program. Most of the time, risks were appropriately characterised, owners identified, causes and impacts understood, and appropriate mitigations put in place. Risk owners mostly understood their responsibilities and took appropriate action. Risks were monitored, and sometimes adjustments to controls were actioned. Where necessary risks were sometimes escalated to an appropriate authority.
Satisfactory	A risk register was established for the program. Sometimes of the time, risks were appropriately characterised, owners identified, causes and impacts understood, and appropriate mitigations put in place. Risk owners sometimes understood their responsibilities and took appropriate action. Sometimes risks were monitored.
Not satisfactory	It is not clear how risks were managed for the program. Risk owners rarely understood their responsibilities and took appropriate action.