Office of the Auditor General
CAYMAN ISLANDS

The Integrated Solid Waste Management System for the Cayman Islands (Regen) - as at December 2021

July 2024

To help the public service spend wisely

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FOREWORD

In March 2021, the Government signed a public-private-partnership (PPP) contract with the preferred bidder for the integrated solid waste management system (Regen).

After the election in April 2021, a new Government was formed. In August 2021, the then Premier and Deputy Premier asked that the Office of the Auditor General (OAG) review the signed contract for Regen. I agreed to this request and the OAG immediately started a performance audit to determine whether the Government would obtain value for money from Regen.

The audit focused on the Regen project, from its inception in 2014 to October 2021.[1] As part of the audit we reviewed the contract, information from the Government’s financial, legal and technical advisors, and the Outline Business Case for the project. In October 2021, responsibility for the Regen project transferred from the Ministry of Health and Wellness to the Ministry of Sustainability and Climate Resiliency.

In line with our usual practice, we issued a clearance draft report to senior officials in the civil service on 4th December 2021. We also shared the clearance draft report with the then Governor, Premier and Deputy Premier.

The purpose of our clearance draft is for the civil service to confirm the factual accuracy of the report and provide a management response to our recommendations. We did not receive a response to the clearance draft. Therefore, the contents and facts in the report have not been confirmed as accurate by the civil service.

Our clearance draft report identified several risks and weaknesses with the contract and made 16 recommendations. For some of these weaknesses we concluded that the contract cost of $790 million was likely to be understated. Most of our recommendations were intended to be used by the Government to improve the contract before it was finalised. We understand that the Government used our clearance draft and recommendations to inform further negotiations with the preferred bidder.

Our office put the audit on hold to allow the Government to continue negotiating the contract. We stated that we would publish the December 2021 report together with an updated report after the Government reached the financial close of the contract. The Minister for Sustainability and Climate

[1] The ‘About the Audit’ section on pages 16 to 18 of the report provides a summary of our audit.

Resiliency announced on 25th July 2024 that the Government was starting discussions to exit the contract.

Therefore, I am issuing the report our office sent to the Government in December 2021. The report comments on the March 2021 contract and other project documents to support that contract. The report does not provide information on the Government's subsequent negotiations with the preferred bidder. As noted in the report, given that three years have passed since the contract was signed the costs would have risen further.

29th July 2024

EXECUTIVE SUMMARY

The Department of Environmental Health (DEH) is responsible for collecting, recycling where possible, and disposing of solid waste in the Cayman Islands. DEH, under the Ministry of Health & Wellness (the Ministry), manages three landfills, one on each island. The Premier announced in October 2021 that responsibility for the Regen project would transfer to the Ministry of Sustainability and Climate Resilience. DEH remains within the Ministry of Health and Wellness.

In December 2013, the Cabinet approved a policy intended to provide the country with a national solid waste strategy and a cost-effective integrated solid waste management system (ISWMS). In 2014, the Government's Economics and Statistics Office reported that the Cayman Islands had generated 52,000 tonnes of waste. In the same year, the Government forecast that the George Town landfill could cope with the quantity of waste produced in Grand Cayman for only seven more years.

The Government reiterated its commitment to developing an integrated solid waste management policy in every Strategic Policy Statement from 2014/15 to 2020/21. Despite being a priority for the Government since 2014, the procurement of an integrated solid waste management system, started in 2014, is still ongoing, more than seven years later. The Government selected Waste Solutions Cayman Ltd (the "Contractor") as Regen's preferred bidder in September 2017. The Contractor is part of a consortium owned by Decco Ltd and Iona Cayman Ltd. In March 2021, after four years of negotiations, the Government signed a contract with the Contractor. At the same time, the Government rebranded the integrated solid waste management system project as "Regen".

The Government's contract with the Contractor is a Public-Private Partnership (PPP). Therefore, the Contractor will incur the cost of constructing the Regen facility. In return for this, and for operating and maintaining the facility over 25 years, the Government will pay the Contractor a monthly fee, called the unitary charge. The DEH will continue to collect waste and deliver this to the landfill for processing.

Therefore, it is important that Parliament and residents have the assurance that the Government will obtain value for money from Regen.

The objective of the audit was to determine whether the Government will obtain value for money from Regen. The audit sought to answer the following questions:

- Did the Government clearly set out Regen's objectives?
- Did the Government clearly demonstrate that a PPP was better value for money than conventional funding?
- Does the contract signed with the Contractor ensure that the Government will obtain value for money over the contract life?

The audit focused on the Regen project from its inception in 2014 to October 2021. Where possible, we sought data relating to activities, costs and results over that time. The audit did not cover:

- the Strategic Outline Case: Integrated Solid Waste Management System, a document prepared by the Government;
- the Early Works Agreement for the Cayman Islands ISWMS Project signed by the Government, the Contractor and Decco Ltd; or
- the Land Transaction Agreement signed between the Government and Dart Enterprises Ltd (a company affiliated with the Contractor).

KEY MESSAGES

Overall, we found that the Government:

- estimates that Regen will cost it $790 million over 25 years, but it will not be able to measure Regen's benefits, as it has not set out Regen's objectives;
- could have saved over $200 million by funding Regen conventionally; and
- will not obtain value for money from the Regen contract because it bears most of the risks of the project.

We have included further details on these conclusions below.

PROJECT GOVERNANCE

As required by law, the Government hired external consultants to advise on the integrated solid waste management system project. The Government spent significantly more than it had budgeted on the consultants, some of whom did not provide value for money.

Regen's Outline Business Case was fundamentally flawed because the Government erroneously concluded that a PPP was not a form of borrowing. As a result, a proper appraisal of a PPP against a conventionally funded alternative was not carried out and the options analysis in the Outline Business Case was skewed towards a PPP. The Outline Business Case did not clearly demonstrate that a PPP was the best financing option. In addition, the Outline Business Case was not approved by the Cabinet, as required by the Public Management and Finance Act (PMFA).

The Government did not prepare a Final Business Case for Regen. The requirement for a Final Business Case is set out in the Government's governance framework for major capital projects and its Public–Private Partnerships & Alternative Financing Policies and Procedures.

LAND TRANSFER

The Government and Dart Enterprises Ltd signed the Land Transaction Agreement in October 2020. The agreement's purpose was to facilitate the exchange of land between the two parties so that the Government and the Contractor could site Regen at their preferred location. However, the agreement is independent of the Regen contract. In other words, even if the Government and the Contractor do not achieve financial close, the land transfers agreed under the Land Transaction Agreement will still happen. Under the agreement, the Government will transfer 58 acres of land to Dart Enterprises Ltd and received 17 acres in return. Neither party will pay any additional money. The source of the Government's valuation of the 58 acres of land it gave to Dart Enterprises Ltd is unclear. It is therefore not known if the Government achieved value for money from the transfer.

COSTS

The Government increased Regen's waste management capacity from 80,000 to 92,500 tonnes, a 15 per cent increase, after selecting the Contractor. This 15 per cent increase in capacity led to a 58 per cent increase in the cost of building Regen's facilities, from $130 million to $206 million. The Government may be overpaying for Regen because it did not review this increase in the construction costs to ascertain that it was reasonable. The construction cost is likely to increase further because the Government and the Contractor did not reach financial close by the 30 September 2021 deadline.

The Government's financial advisor estimates that the Government will incur a unitary charge of $29 million in the first year of operation and $790 million over the 25-year contract period. The Government has not considered the unitary charge's impact on its future borrowing limits and financial ratios. Therefore, it may not be able to acquire new loans in the future if Regen causes it to breach the borrowing limits set out in the PMFA. In addition to the estimated $790 million cost of Regen, the Government will continue to incur DEH's operating expenses. DEH's operating expenses for the 2020 financial year were $13.5 million.

From our review of correspondence between Government officials, we found that the Government could save over $50 million by injecting capital into Regen. However, there is no evidence that the Contractor agreed to this option. Therefore, it is not clear if this option was ever, or is still, available to the Government.

The financial advisor's $790 million estimate of Regen's price over its 25-year contract period is likely to be understated because some of the assumptions in the estimate's underlying financial model were inaccurate. For example, the assumed waste tonnage, inflation and discount rates were inaccurate.

The Government financial advisor forecast that Regen will generate approximately $406 million in revenue from the sale of electricity over the 25-year contract period. The Government will use this revenue to offset the unitary charge. However, the Regen contract does not specify what sanctions the Contractor will face if Regen's facilities generate less electricity than anticipated.

The previous Government and the Contractor set 30 September 2021 as the deadline for the contract's financial close. However, the new Government and the Contractor did not meet the deadline and subsequently extended it to 31 December 2021. Therefore, Regen's construction cost is likely to increase.

VALUE FOR MONEY

The Government did not carry out an updated value for money assessment after it agreed Regen's construction cost with the Contractor, contrary to the requirements of the Framework for Fiscal Responsibility. The updated value for money assessment may have shown that conventional funding or borrowing would provide better value for money than the PPP.

The Government will not be able to measure Regen's benefits because it has not specified Regen's objectives in terms of specific, measurable, achievable, relevant and time-constrained (i.e. SMART) outputs and outcomes.

The Government has been funding major capital projects using conventional funding for several years because its finances have significantly improved since it prepared the Outline Business Case in 2016. In addition, in September 2020, the Government obtained an emergency line of credit of $330.5 million at an interest rate of 3.25 per cent. The interest rate on the line of credit is significantly lower than the internal rate of return of 9.4 per cent that the Government will pay to the Contractor. We found that the Government could have saved over $200 million by funding Regen conventionally. Therefore, the Government should have reassessed the best way to finance Regen.

RISKS

From our review of documents prepared by the Government's legal advisor, we found that, overall, the Government appears to bear most of Regen's risks, significantly weakening one of the main benefits of a PPP. The Government may be exposed to increased financial and reputation risks because it did not carry out due diligence checks on the Contractor or members of the Contractor's consortium. Contrary to best practice, the previous Government agreed to take on the risk of all changes in future laws and regulations. Therefore, the current and future Governments will have to indemnify the Contractor for the impact on Regen of any laws and regulations passed by the Government.

The Regen contract does not contain adequate safeguards for most project risks and potential technological advancements. In addition, it does not give the Government unrestricted access to the Contractor's records, to verify the accuracy of the Contractor's invoices, or unrestricted access to Regen's facilities, to verify that the Contractor is adequately maintaining the facilities. The contract does not allow the Government to share excess profits from Regen if its forecast assumptions are significantly understated. The Government and the Contractor have not agreed on an appropriate insurance solution for Regen. The contract includes adequate safeguards for operating risks, but the contracting parties have not yet finalised key documents, i.e. the Payment Mechanism and the Performance Measurement Framework. However, the contract contains adequate safeguards for design and construction risks. If the Government breaches the contract, it is required to compensate the Contractor as if the Contractor had operated Regen for the entire 25-year contract period.

The new Government has not yet assessed Regen’s risks against its strategic objectives.

GLOSSARY OF TERMS AND ABBREVIATIONS

Contractual close	The point at which the parties to a public–private partnership, i.e. the public entity and the private party, agree on and sign a contract. After contractual close, there are usually several additional steps to be completed by both parties before project implementation can begin. These steps may include securing the necessary building permits, finalising the financing agreements and signing contracts with subcontractors. These additional steps are referred to as "conditions precedent". The public entity and the private party must meet the conditions precedent for the contract to become effective.
Financial close	The point at which public entity and the private party have met all the conditions precedent under the contractual close. At this stage, the public entity and the private party have signed the project and financing agreements and have met all the contract's conditions. The contractor can then start drawing down the financing to start work on the project.
Framework for Fiscal Responsibility	An agreement signed between the Cayman Islands and UK Governments in 2011. Parliament, then known as the Legislative Assembly, passed the framework into law in November 2012 as an amendment to the Public Management and Finance Act. The framework's purpose was to enable the Cayman Islands Government to restore prudent fiscal management by controlling Government expenditure, limiting new borrowings, realigning its revenue base, improving the performance of Statutory Authorities and Government Companies; and reducing costs by working in partnership with the private sector. In the event that the Government is non-compliant with any of the requirements of the framework, the framework requires the Government to obtain written approval from the appropriate UK Secretary of State before it: • finalises its Strategic Policy Statements; • incurs new loans or refinances any existing ones; • proceeds with any project with a lifetime value of more than $10 million;

- uses public assets as collateral as part of any arrangement with an external party external; or
- hypothecates any revenue.

Green Book	Guidance issued by Her Majesty's Treasury on how to appraise policies, programmes and projects.[2]
Public Private Partnership ("PPP")	A partnership between a public entity and a private party for providing a public asset or service. In return for periodic payments from the public entity, the private party will perform all, or a combination, of designing, financing, building, operating and maintaining the asset. The contracts are usually long term, and the private party returns the asset to the public entity at the end of the contract period.
Public sector comparator	An estimate of the cost that the public entity would pay if it financed a project through public revenue or borrowing and delivered the services itself. Public entities use the public sector comparator to determine whether a project should be delivered by the public entity itself or by a private party under a PPP.
Special-purpose vehicle	A separate legal entity created by one or more companies, usually for a specific objective. The entity is a distinct company with its own assets, liabilities and legal status.
Value for money	A measure of value that weighs the cost of a good or service against its quality and the benefits it brings, taking into account factors such as fitness for purpose. Maximising value for money ensures that public resources are used most efficiently and effectively.
Waste Infrastructure Delivery Programme (WIDP) Contract	A form of contract developed by the UK Government and industry experts in the UK to guide the delivery of waste infrastructure projects undertaken using PPPs. Public entities and contractors in many jurisdictions have used the WIDP Contract, and accept it as best practice.

[2] *The Green Book: Central Government guide on appraisal and evaluation*, HM Treasury, 2020.

INTRODUCTION

THE GEORGE TOWN LANDFILL IS CLOSE TO CAPACITY

1. The Department of Environmental Health (DEH) is responsible for collecting, recycling where possible, and disposing of solid waste in the Cayman Islands. DEH, under the Ministry of Health & Wellness (the Ministry), manages three landfills, one on each island.

2. In December 2013, the Cabinet issued *Policy Guidance for a Proposed Integrated Solid Waste Management System Cayman Islands*. The Government intended to achieve the policy by developing a National Waste Management Strategy that would guide effective long-term programmes for collecting, processing, recycling, resource recovery and disposal of solid waste. The Government's policy's purpose was to:

   - provide the country with an environmentally sound and cost-effective integrated solid waste management system without incurring more debt;
   - provide an efficient and economic balance of public and private services to enable it to meet or exceed requirements for the effective management of solid waste while ensuring public health and safety and protecting the environment for the near and long term;
   - have an operational integrated solid waste management system as soon as possible, subject to a transparent and accountable procurement process.

3. In 2014, the Government's Economics and Statistics Office reported that the Cayman Islands had generated 52,000 tonnes of waste. In the same year, the Government forecast that the George Town landfill could cope with the quantity of waste produced in Grand Cayman for only seven more years. Therefore, the Government decided to develop an integrated solid waste management system to manage the country's solid waste sustainably.

4. Between 2016 and 2020, the total waste that DEH managed at the three landfills increased from 102,000 to 133,000 tonnes per annum, a 31 per cent increase. The waste generated grew at a higher rate than the population (7 per cent) over the same period. The number of visitors grew by

11 per cent between 2016 and 2019.[3] More than 95 per cent of the waste was produced in Grand Cayman and managed at the George Town landfill.

PROCUREMENT OF A SOLID WASTE MANAGEMENT SYSTEM HAS BEEN ONGOING FOR OVER SEVEN YEARS

5. According to *Policy Guidance for a Proposed Integrated Solid Waste Management System Cayman Islands*, the Government expected to enter PPP at some stage of the project. A PPP is a contract between a public entity and a private party for providing a public asset or service. In return for periodic payments from the public entity, the private party will perform all, or a combination, of designing, financing, building, operating and maintaining the asset. The contracts are usually long term, and the private party returns the asset to the public entity at the end of the contract period.

6. The policy's broad objective was to provide the country with a national solid waste strategy and a cost-effective integrated solid waste management system which:

   - minimised the risks of immediate and future environmental pollution and harm to human health;
   - accommodated the Islands' growth over 50 years, with interim reviews every five years;
   - adhered to the principles of the European Commission's hierarchy of solid waste management (Exhibit 1), which are that waste prevention and re-use are the preferred options, followed by recycling and energy recovery, with waste disposal through landfills a last resort.

Exhibit 1: European Commission's waste hierarchy

Source: Waste management and prevention, European Commission, 2020.

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[3] The Government closed the borders in March 2020 in response to the COVID-19 pandemic, resulting in a 72 per cent decrease in the number of tourist arrivals from 2019 to 2020. Therefore, we used the change in the number of tourists between 2016 and 2019 to compare. Between 2016 and 2019, the number of stay-over visitors increased by 30 per cent, and the number of cruise ship visitors increased by seven per cent.

7. The Government's 2014/15 Strategic Policy Statement provided further support for these broad objectives. For example, Broad Outcome 5 (d) was about the development of a modern waste management facility that included waste to energy and recycling facilities through a PPP. The Government reiterated its commitment to developing an integrated solid waste management system in every subsequent Strategic Policy Statement until the 2020 Strategic Policy Statement, which covered the 2020 and 2021 financial years. The 2022–2024 Strategic Policy Statement did not contain this commitment.

8. In 2014, the Government developed a Strategic Outline Case for an integrated solid waste management system. The procurement of an integrated solid waste management system has been ongoing since then, and is still ongoing, more than seven years later.

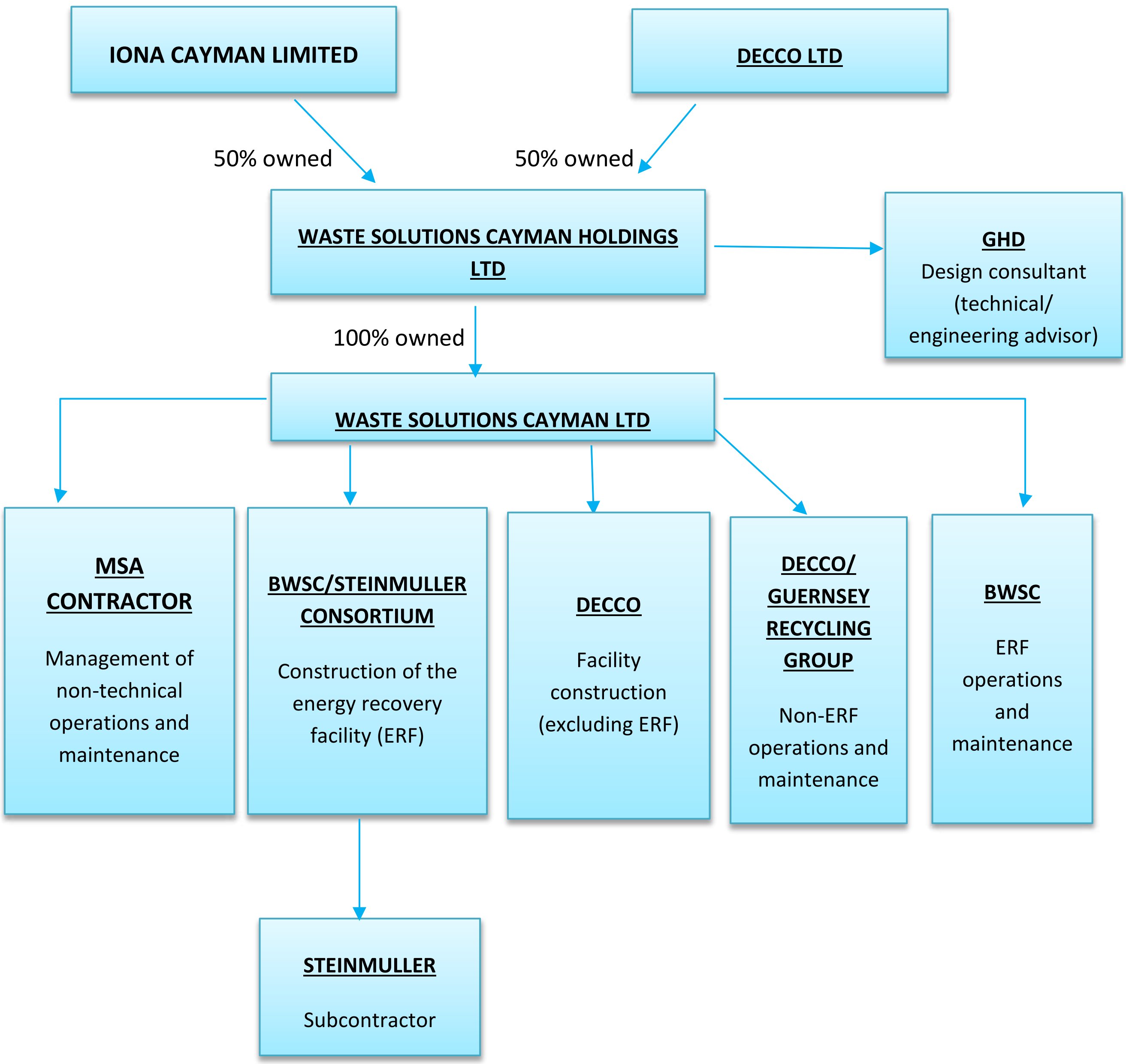
9. As required by the Framework for Fiscal Responsibility, the Government hired external consultants for the integrated solid waste management system:[4]

   - Amec Foster Wheeler Environment & Infrastructure UK Limited (now known as Wood Plc) was chosen as the technical and environmental advisor.
   - KPMG was chosen as the financial advisor. The Government undertook a joint procurement process for the technical, environmental and financial advisors. Therefore, the Government hired KPMG as the financial advisor through KPMG's joint bid with Wood Plc.
   - Maples and Calder (Cayman LLP) and Burges Salmon LLP were selected as the legal advisors.

10. In September 2017, the Government selected Waste Solutions Cayman Ltd (the Contractor") as the preferred bidder for the integrated solid waste management system. The Contractor is a special-purpose vehicle for a consortium of companies that bid for the project. The consortium is owned by Decco Ltd and Iona Cayman Ltd. Exhibit 2 shows the structure of the consortium.

[4] A definition of the Framework for Fiscal Responsibility can be found in the *Glossary of terms and abbreviations* on page 7. The definition also includes a summary of the consequences the Government faces if it breaches the framework.

Exhibit 2: Structure of the Contractor's consortium



Source: ISWMS Project: The Interim Financial Report, KPMG, March 2021.

11. After four years of negotiations, the Government and the Contractor reached contractual close in March 2021. The integrated solid waste management system was rebranded as "Regen" in the same month. We refer to the proposed integrated solid waste management system as Regen throughout this report.

12. The Outline Business Case included a proposed timetable for Regen's procurement process, but the Government did not adhere to it, partly because the Government used inaccurate estimates of waste tonnage in the Outline Business Case. The Government revised its estimates of waste tonnage after concluding the procurement process. As a result, the Government had to renegotiate the contract price with the Contractor. Exhibit 3 shows the key dates in Regen's procurement.

Exhibit 3: Key dates in Regen's procurement

Activity	Target completion date	Actual/proposed completion date
Cabinet policy directive for the development of an integrated solid waste management system	Not applicable	December 2013
Development of the Strategic Outline Case	May 2014	April 2014
Procurement of Regen's environmental, technical and financial advisors	September 2014	September 2014
Development of the National Solid Waste Management Policy for the Cayman Islands	December 2015	August 2015
Procurement of Regen's legal advisors	September 2014	Pending receipt of procurement documents/contract
Development of the Outline Business Case	June 2015	September 2016
Commencement of Regen's procurement process	September 2015	November 2016
Selection of Regen's Contractor	March 2017	September 2017
Amendment of the Contractor's consortium	Not applicable	November 2019
Increase in Regen's waste management capacity from 80,000 to 92,500 tonnes	Not applicable	Month 2020 – awaiting documents
Conditional contractual close and rebranding of the Integrated Solid Waste Management System as Regen	Not applicable	March 2021
Initial target date for financial close	September 2017	September 2021
Extension of the target date for financial close	Not applicable	October 2021
Revised target date for financial close	Not applicable	December 2021
Regen's first full operational month	October 2020	Currently estimated to be June 2024[5]

Source: OAG analysis of Regen documents provided by the Ministry of Health.

13. The Government did not prepare an updated project timetable after it increased Regen's waste management capacity. Given the changes in Regen's waste management capacity, an updated

[5] The estimate is likely to change because the Government and the Contractor have not yet achieved financial close. Regen's estimated construction period is three years.

project timetable would have provided useful milestones for the Government and the Contractor to adhere to and would have ensured that they achieved financial close sooner.

14. In March 2021, the previous Government and the Contractor signed the Regen contract, setting 30 September 2021 as the deadline for financial close. However, the new Government, elected in April 2021, and the Contractor did not reach financial close before the deadline. In October 2021, the new Government and the Contractor extended the deadline for financial close to 31 December 2021.

REGEN'S CONSTRUCTION COST INCREASED FROM $130 MILLION TO $206 MILLION AFTER PROCUREMENT

15. As highlighted in Exhibit 3, the Government selected the Contractor as the preferred bidder for Regen in September 2017, but negotiations to reach financial close were still ongoing in October 2021.

16. As previously reported, one reason for the fact that the contract negotiations have been protracted is that the Government increased Regen's waste management capacity after concluding the procurement process. The Government's technical and financial advisors prepared the Outline Business Case with an estimated annual waste of approximately 80,000 tonnes, and this figure was used to start the procurement process.

17. However, the capacity was increased after the Contractor had been selected because the Government started measuring the waste collected at the George Town landfill and found it to be higher than it initially estimated. The Government and the Contractor agreed to increase Regen's waste management capacity to 92,500 tonnes. However, the Economics and Statistics Office has reported that more than 100,000 tonnes of waste have been generated annually since 2016.

18. As a result of the increase in capacity, the Contractor increased the contract price for construction of the facility from $130 million to $206 million, a 58 per cent increase.

REGEN WILL COST THE GOVERNMENT APPROXIMATELY $790 MILLION OVER 25 YEARS

19. The Government's contract with the Contractor is a PPP. Therefore, the Contractor will pay for the construction cost. In return for constructing the Regen facility, and for operating and maintaining it over 25 years, the Government will pay the Contractor a monthly fee called the unitary charge.

20. In March 2021, after the Government agreed on Regen's contract price with the Contractor, the Government's financial advisor prepared a report entitled *ISWMS Project: The Interim Financial Report* (hereafter the "revised financial report"). In the report, the financial advisor estimated that Regen would cost the Government $790 million over its 25-year contract period. The Government expects Regen to become operational in 2024.

21. In addition to the estimated $790 million cost of Regen, the Government will continue to incur DEH's operating expenses. DEH's operating expenses for the 2020 financial year were $13.5 million.

THE GOVERNMENT GAVE AWAY 58 ACRES OF LAND IN EXCHANGE FOR 17 ACRES

22. The Government and Dart Enterprises Ltd signed the Land Transaction Agreement in October 2020. The agreement's purpose was to facilitate the exchange of land between the Government and Dart Enterprises Ltd so that the Government and the Contractor could site Regen at their preferred location.

23. As discussed later, in paragraph 33, we did not thoroughly review the Land Transaction Agreement signed between the Government and Dart Enterprises Ltd, a company affiliated with the Contractor. However, the Ministry of Health references the Land Transaction Agreement in some of the documents we reviewed as part of the audit. Therefore, we have included this summary of the Land Transaction Agreement based on our review of the records provided.

24. The Land Transaction Agreement is independent of the Regen contract. In other words, even if the Government and the Contractor do not achieve financial close, the land transfers agreed under the Land Transaction Agreement will still happen. Therefore, the Land Transfer Agreement effectively requires the Government to reach financial close with the Contractor, as failure to do so would mean that the Government would have to find an alternative site for Regen.

25. Under the Land Transaction Agreement, the Government will transfer 58 acres of land to Dart Enterprises Ltd and received 17 acres in return. Neither party will pay any additional money. Exhibit 4 shows a summary of the land transfers under the Land Transaction Agreement.

Exhibit 4: Summary of land transfers under the Land Transaction Agreement

Lot number	Block and parcel number	Area (acres)	Government valuation ($000s)
Land parcels transferred from the Government to Dart Enterprises Ltd			
1	19E221REM1	11.13	7,000
2	13C1 (part) and 13D1 (part)	45.63	6,800
3	13D1 (part)	1.33	Not valued
	Total	**58.09**	**13,800**
Land parcel transferred from Dart Enterprises Ltd to the Government			
4	13D431	16.78	13,800
	Total	**16.78**	**13,800**

Source: OAG analysis of Regen documents provided by the Ministry of Health.

26. The Government agreed to transfer Lot 2, the current location of the George Town landfill, to Dart Enterprises Ltd. It is not clear if the Government's $6.8 million valuation incorporated the ongoing remediation or the Government's long-term environmental liability for the Lot, that is:

- As of August 2021, the Government's technical advisor estimated that the Government had spent approximately $26 million remediating Lot 2. The Contractor is remediating Lot 2 under a separate contract with the Government.
- Under the Land Transaction Agreement, the Government will retain the historical environmental liability of waste from the landfill at Parcel 2. The Government has not quantified the estimated future environmental liability.

27. The Land Transaction Agreement requires the Government to transfer Lot 3 to the Cayman Rugby Club as part of a separate contract between Dart Enterprises Ltd and the Cayman Rugby Club. However, it appears that the Government valued the Lot at $0.

28. The Government's financial advisor carried out a value for money analysis of the land transfer based on the Government's valuations and concluded that the land transfer was value for money. However, the financial advisor's analysis did not consider the valuation of Lot 3.

THE NEW GOVERNMENT HAS NOT ASSESSED REGEN'S RISKS AGAINST ITS STRATEGIC OBJECTIVES

29. After the election in April 2021, a new Government was sworn in in the same month. The new Government has set sustainability as one of its strategic policy objectives. The 2022–2024 Strategic Policy Statement states that the Government plans to offer incentive programmes to encourage recycling and reduce waste.

30. We were told that officials from the Ministry of Health briefed the new Cabinet about Regen in May 2021. However, the briefing was limited to Regen's progress and did include Regen's risks or the lack of value for money assessment before contractual close. In addition, the briefing did not include an analysis of the potential impact that proceeding with Regen would have on the new Government's planned policies.

ABOUT THE AUDIT

31. We carried out this audit because there are concerns about whether the Government will obtain value from money from the Regen contract. The Government estimates that Regen will cost approximately $790 million over its 25-year contract life, with a cost of approximately $29 million in its first year of operation alone. As of March 2021, the Government expected Regen to become operational in June 2024, with 2025 as its first full operational year. Therefore, it is important that Parliament and residents have assurance that the Government will obtain value for money from spending this large amount of money.

32. The objective of the audit was to determine whether the Government will obtain value for money from Regen. The audit sought to answer the following questions:

- Did the Government clearly set out Regen's objectives?
- Did the Government clearly demonstrate that a PPP was better value for money than conventional funding?
- Does the contract signed with the Contractor ensure that the Government will obtain value for money over the contract life?

33. The audit focused on the Regen project, from its inception in 2014 to October 2021. Where possible, we sought data relating to activities, costs and results over that time. The audit did not cover:

- the Strategic Outline Case: Integrated Solid Waste Management System, a document prepared by the Government;
- the Early Works Agreement for the Cayman Islands ISWMS Project, signed between the Government, the Contractor and Decco Ltd; or
- the Land Transaction Agreement, signed between the Government and Dart Enterprises Ltd.

34. The Government did not provide us with some of the information we requested for the audit. Providing this information may have changed some of our findings from the audit. We have outlined below the information we asked for but did not receive.

- the fee paid to the Government's financial advisor for preparing the revised financial report in March 2021;
- evidence that Cabinet approved the Outline Business Case;
- copies of the contracts for the Government's legal advisors;
- supporting documents for the procurement of the Government's legal advisor;
- a copy of the terms of reference that the Government provided to its financial advisor to prepare the revised financial report;
- evidence that the Government reviewed the $76 million increase in Regen's price to ensure that it was reasonable;
- evidence that the Government performed due diligence checks on all members of the Contractor's consortium.

35. We conducted the audit in accordance with The International Standards of Supreme Audit Institutions. The approach to the audit included:

- conducting interviews with key stakeholders, including Ministry of Health and other Government officials involved with the Regen project;

- reviewing documents relating to Regen, including the Strategic Outline Case, the Outline Business Case, procurement documents, the Regen contract and its supporting schedules, Cabinet Papers, legislation, budget documents, legal reports and financial reports and statements;
- analysing financial information, for example money spent on Regen to date.
- researching leading international practices, e.g. the Green Book and past audit reports about PPPs from the UK's National Audit Office;
- technical advice and support from the UK's National Audit Office;
- analysing audit evidence and assessing against agreed criteria to develop findings, recommendations and a conclusion on the audit objective;
- providing a draft report to relevant government officials for a review of its factual accuracy and obtaining responses to the report's recommendations (see Appendix 2);
- presenting a final report of the audit to the Parliament.

36. We structured the report into three chapters:

    - Regen's objectives;
    - Value for money during Regen's procurement;
    - Value for money during Regen's contract life.

37. More information about the audit, including the audit criteria, approach and methodology, can be found in Appendix 1 of this report.

REGEN'S OBJECTIVES

38. A business case is a management tool developed over time as a proposal develops. It keeps together and summarises the results of all the necessary research and analysis to support transparent decision-making. In its final form, the business case becomes the key document of record for the proposal, summarising the proposal's objectives, key features of implementation management and arrangements for post-implementation evaluation.

39. The business case develops iteratively over time, often in three distinct stages, with more detail being provided at each stage, as follows:

- Stage 1, the Strategic Outline Case – the scoping phase;
- Stage 2, the Outline Business Case – the detailed planning stage;
- Stage 3, the Final Business Case – the detailed final phase.[6]

40. The Framework for Fiscal Responsibility requires the Government to prepare a business case demonstrating the need for all projects where the Government is considering PPP. The business case should "include a fully argued and costed risk and impact assessment; and specify the benefits the project is designed to deliver to ensure that an informed decision can be made on whether or not to proceed to the procurement stage". The Framework for Fiscal Responsibility also requires the Government to prepare the business case before it starts the procurement process. Parliament, then known as the Legislative Assembly, passed the framework into law in November 2012. The Government prepared the Outline Business Case for the Regen project in September 2016, in accordance with the law.

41. In January 2017, the Government, through its Major Projects Office, adopted a governance framework for major capital projects. The framework requires the Government to prepare a Final Business Case for all major capital projects. In March 2019, the Government adopted its Public–Private Partnerships & Alternative Financing Policies and Procedures. The policies and procedures

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[6] *Assessing business cases 'a short plain English guide'*, HM Treasury, November 2020. The HM Treasury Guidance refers to Stage 3 as a Full Business Case. This is the same as a Final Business Case, which is the term we use in this report.

also require the Government to prepare a Final Business Case for all PPPs. However, the Government did not prepare a Final Business Case for Regen.

42. This chapter describes findings from our review of the Outline Business Case.

THE OUTLINE BUSINESS CASE WAS FUNDAMENTALLY FLAWED AND HAD SIGNIFICANT GAPS

43. The purpose of the Outline Business Case is to revisit the Strategic Outline Case in more detail and to identify a preferred option that demonstrably optimises value for money. It also demonstrates the project's affordability.[7]

THE OUTLINE BUSINESS CASE WAS FUNDAMENTALLY FLAWED

44. The options analysis in the Outline Business Case was fundamentally flawed because it erroneously concluded that a PPP is not a form of borrowing. As a result, a proper appraisal of a PPP against a conventionally funded alternative was not conducted and the options analysis in the Outline Business case was skewed towards a PPP.

45. The Outline Business Case stated that conventional borrowing to fund Regen was unlikely to be a viable option because the Government had decided not to acquire any new loans. This statement was based on the 2015/16 Strategic Policy Statement, dated November 2014, in which the Government stated its objective not to undertake any new borrowings from 2015 to 2018.

46. However, under the Government's financial reporting framework, International Public Sector Accounting Standards, a PPP is a form of borrowing. The Public Management and Finance Act, among other requirements, sets borrowing limits for the Government.[8] It requires the Government to obtain approval from the UK's Secretary of State before acquiring any new loans if it breaches the borrowing limits.

47. The Outline Business Case stated that the Government could not utilise conventional borrowing to fund a major capital project because of these borrowing restrictions. However:

- In the 2016/17 Strategic Policy Statement, the Government forecast that it was on track to achieve compliance with the borrowing limits in the Public Management and Finance Act by 30 June 2016. The 2016/17 Strategic Policy Statement, dated November 2015, was issued nine months before the Outline Business Case in September 2016.

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[7] Ibid.

[8] Within the Public Management and Finance Act, the borrowing limits are documented in the Principles of Responsible Financial Management and the Framework for Fiscal Responsibility.

- The Outline Business Case assumed a procurement and construction period of 48 months from September 2016.

48. Therefore, the Government could have asked the UK's Secretary of State for approval to borrow to fund Regen but did not do so because it did not consider PPP a form of borrowing.

THE OUTLINE BUSINESS CASE DID NOT CLEARLY DEMONSTRATE THAT A PPP WOULD PROVIDE BETTER VALUE FOR MONEY

49. The Outline Business Case did not clearly demonstrate that a PPP was the best financing option for Regen because the difference in the estimated value for money of the PPP compared with a public sector comparator was less than 3 per cent.

50. To perform a value for money analysis of different options in a business case, the economic costs and benefits for each year covered by the proposal are calculated. The costs and benefits are then added to obtain a net figure for each year. Each of these annual net values is then discounted and the results are summed to give a net present value (NPV). The NPV is the basis on which value for money is assessed. Exhibit 5 summarises the results of the value for money analysis, as detailed in the Outline Business Case.

Exhibit 5: Summary of the value for money analysis of Regen's PPP against the public sector comparator

	NPV
Public sector comparator (A)	$553 million
PPP (B)	$538 million
Total estimated value for money in $ (C = A – B)	$15 million
Total estimated value for money (%)	2.76%

Source: Outline Business Case, September 2016.

51. Exhibit 5 shows that the estimated value for money of the PPP was marginal (2.76 per cent). According to the sensitivity analysis in the Outline Business Case, a 0.5 per cent reduction in the Government's assumed borrowing rate would have resulted in the public sector comparator delivering better value for money than a PPP, to the tune of 8 per cent.

52. The Ministry of Health did not provide us with a copy of the financial model that underpinned the value for money comparison in the Outline Business Case. As a result, we could not determine whether the Government's assumed cost of borrowing in the financial model was reasonable. We discuss later, in '**Value for money during Regen's procurement**', why we believe that some of the assumptions used in the financial model in the Outline Business Case were not reasonable. This

significantly casts doubt on the Government's conclusion that a PPP represented better value for money than a conventionally funded procurement.

THE OUTLINE BUSINESS CASE DID NOT CLEARLY SPECIFY REGEN'S OBJECTIVES

53. The Green Book recommends the 5 Case Model as a framework for developing business cases. The 5 Case Model breaks a business case into five interconnected but distinct aspects, namely the strategic, economic, financial, commercial and management aspects of the case. The business case should enable stakeholders to ascertain that proposals:

- are supported by a robust case for change – the strategic case;
- optimise value for money – the economic case;
- are commercially viable – the commercial case;
- are financially affordable – the financial case; and,
- can be delivered successfully – the management case.[9]

54. Our review found that the Outline Business Case contained all the elements of the 5 Case Model. We also compared the Outline Business Case with the Checklist for Assessment of Business Cases extracted from the Green Book.[10] We found that the Outline Business Case specified Regen's risk transfer scope, adequately justified the decision to use a competitive dialogue procedure for the procurement, and included a timetable for Regen.

55. However, the objectives of a project as set out in a business case should set be SMART, i.e. specific, measurable, achievable, relevant and time constrained. The Outline Business Case specified the Government's objectives for Regen, but the objectives were generic, i.e. they were not expressed in terms of SMART outputs and outcomes. Without clearly specified objectives, the Government will not be able to determine if it has obtained value for money from a project once the project is operational. In addition, the Outline Business Case did not consider the impact of undertaking Regen using a PPP on the Government's compliance with the borrowing limits in the Public Management and Finance Act.

56. In September 2016, the Government published the Outline Business Case for public consultation as required by the Framework for Fiscal Responsibility. However, the Outline Business Case was not approved by Cabinet, as required by the Public Management and Finance Act.

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9 *Assessing business cases 'a short plain English guide'*, HM Treasury, November 2020.

10 Checklist for Assessment of Business Cases, HM Treasury, November 2020.

THE GOVERNMENT DID NOT PREPARE A FINAL BUSINESS CASE FOR REGEN

57. The purpose of the Final Business Case is to revisit the Outline Business Case based on the outcome of the subsequent procurement activities; together with the recommendation for an affordable solution that continues to optimise value for money. The Final Business Case should contain detailed arrangements for the successful delivery of required goods and implementation of services from the recommended supplier(s).[11] The Final Business Case should also include an updated value for money assessment based on the results of the procurement process.

58. As previously reported, the Government did not prepare a Final Business Case for Regen. This is contrary to the requirements of its governance framework for major capital projects and its Public–Private Partnerships & Alternative Financing Policies and Procedures. In our 2017 report we recommended that the Government ensure that all key approval documents for major capital projects, including a Final Business Case, should be prepared to support informed decision-making.[12] The Government accepted the recommendation at that time.

59. Because the Government did not prepare a Final Business Case:

    - It has not demonstrated that Regen's PPP will provide better value for money than a conventionally funded alternative.
    - It will not be able to measure Regen's benefits.
    - It may be overpaying for Regen.
    - It may not be able to borrow in the future.

60. We provide further details on each of these consequences below.

THE GOVERNMENT HAS NOT DEMONSTRATED THAT REGEN'S PPP WILL PROVIDE BETTER VALUE FOR MONEY THAN A CONVENTIONALLY FUNDED ALTERNATIVE

61. As previously reported, the cost of constructing the Regen facility has increased considerably, from $130 million to $206 million, since the Government selected the Contractor as Regen's preferred bidder. Therefore, the Government should have prepared an updated value for money assessment.

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11 *Assessing business cases 'a short plain English guide'*, HM Treasury, November 2020.
12 *Major Capital Projects Follow Up*, Office of the Auditor General, October 2017.

An updated value for money assessment may have shown that conventional funding or borrowing would provide better value for money than the PPP.

62. In addition, the Government's finances have significantly improved since it prepared the Outline Business Case in 2016. For example, the Government had accumulated $560 million in surpluses as of December 2021, and reported an additional $107 million surplus in the nine months ending September 2021.[13] As a result, the Government has been funding major capital projects using conventional funding for a number of years.

63. In September 2020, the Government obtained an emergency line of credit of $330.5 million at an interest rate of 3.25 per cent to help deal with the economic fallout of the COVID-19 pandemic. In its 2022–2024 Strategic Policy Statement, the Government stated its intention to use the line of credit to fund forecast capital expenditure. The interest rate on the line of credit is significantly lower than the internal rate of return of 9.4 per cent that the Government will pay to the Contractor.[14] Therefore, the Government should have reassessed the best way to finance Regen to ensure that it obtained the best value for money and that Regen was affordable in the long term.

THE GOVERNMENT WILL NOT BE ABLE TO MEASURE REGEN'S BENEFITS

64. As mentioned earlier, the Outline Business Case did not set out the expected benefits and outcomes of the Regen project. A Final Business Case would have allowed the Government to clearly state the benefits in terms of the SMART outcomes and outputs it hoped to obtain from the project. As this was not done, it is not clear what benefits Regen is expected to deliver. For this reason, the Government will not be able to measure the benefits and value for money that it will obtain from Regen.

Recommendation 1: The Government should prepare an Outline Business Case and a Final Business Case for all major capital projects, as required by its framework for major capital projects and The Procurement Act, 2016. The Outline Business Case and Final Business Case should:

- **contain a comprehensive options analysis;**
- **specify the project's benefits in terms of SMART outputs and outcomes;**

13 The $560 million figure is based on the Government's draft financial statements for the entire public sector for the year ended 31 December 2020. We have not yet audited these financial statements. The $107 million figure is from the Government's Unaudited Quarterly Financial Report for the nine months ended 30 September 2021.

14 The internal rate of return is the expected compound rate of return that an investor will earn on a project or investment.

- **contain a qualitative and quantitative value for money analysis justifying the selected alternative.**

Recommendation 2: The Government should specify Regen's benefits in the form of SMART outcomes and outputs.

THE GOVERNMENT MAY BE OVERPAYING FOR REGEN

65. The Government may be overpaying for Regen because it did not review increases in the construction costs to ascertain that they were reasonable. The Government increased the waste management capacity from 80,000 to 92,500 tonnes, a 15 per cent increase, after it selected the Contractor as Regen's preferred bidder. This 15 per cent increase in capacity led to an increase in the cost of building Regen's facilities of $40 million, or 31 per cent.

66. As a result of the increase in capacity, the estimated construction cost rose by $76 million, an increase of 58 per cent over the initial cost of $130 million in the Contractor's bid. Exhibit 6 shows the breakdown of the $76 million increase in Regen's cost.

Exhibit 6: Breakdown of the $76 million increase in Regen's construction cost

Description	Amount ($000s)	% change based on the original contract price of $130 million
Estimated impact of additional indexation	18,000	14%
Foreign exchange movements attributable to capital expenditure	14,000	11%
Change in the scale of the facilities – indicative estimated impact on capital expenditure	40,000	31%
Other changes	3,841	3%
Total	**75,841**	

Source: ISWMS Project: The Interim Financial Report, KPMG, March 2021.

67. As will be explained later in the report, the Government and the Contractor agreed that the construction costs of $206 million would be valid only if financial close was achieved before 30 September 2021. The Government and the Contractor did not reach financial close before that date. Therefore, Regen's construction cost is likely to increase.

Recommendation 3: The Government should, prior to financial close, review all price increases proposed by the Contractor to ensure that they are reasonable.

THE GOVERNMENT MAY NOT BE ABLE TO BORROW IN THE FUTURE

68. A PPP is a form of borrowing. Therefore, the unitary charge that the Government will pay to the Contractor will increase the Government's level of borrowing and debt ratios. The Public Management and Finance Act sets out six principles of responsible financial management that should inform the policies drawn up and decisions taken by the Cabinet. These principles include three ratios that relate to borrowing, including net worth, the cost of borrowing and net debt.

69. In return for designing, building, financing, operating and maintaining the Regen facility, the Government will pay a monthly unitary charge to the Contractor. The Government estimates that it will incur an annual unitary charge of $29 million in Regen's first year of operation. Because the cost of building the Regen facility is significantly higher than when the Government's financial advisor prepared the Outline Business Case, the unitary charge is also higher.

70. The Government has not considered the impact of the increased unitary charge on its future borrowing limits and financial ratios. In May 2021, we reported on the Government's financial performance over the five years 2014/15 to 2019.[15] That report stated the following in relation to borrowing and the principles of responsible financial management that relate to borrowing (financial ratios):

- The Government's borrowing level had reduced significantly, to $330 million, at the end of 2019. However, the Government had arranged a stand-by line of credit of $330.5 million, and it had provided a loan of $20.9 million to the Cayman Islands Airport Authority.
- The cost of borrowing had fluctuated. The Government had adhered to the principle that the cost of borrowing in any year should not be more than 10 per cent of core government revenue in only two of the five years reviewed.
- Net debt was consistently less than 80 per cent of core government revenue.
- Core government had sufficient assets to cover liabilities, but this did not include all liabilities, as the reported liabilities did not include the full liability for retirement benefits. If the Government included that liability, its net worth would be negative.

71. We reported previously that the Government intends to use the $330.5 million line of credit to fund major capital projects over the next few years. The PPP for Regen will further increase the Government's total borrowing levels, and financial ratios, in the medium to long term. Therefore,

[15] *Improving Financial Accountability and Transparency: Financial Management and Reporting*, Office of the Auditor General, May 2021.

the Government may not be able to acquire new loans in the future if Regen causes it to breach the borrowing limits set out in the Public Management and Finance Act.

Recommendation 4: The Government should calculate Regen's impact on its future borrowing limits and financial ratios to ensure that the limits and ratios comply with the Public Management and Finance Act. The cost of the unitary charge for Regen should also be incorporated into forecast borrowing ratios in future Strategic Policy Statements.

THE GOVERNMENT MAY BE EXPOSED TO INCREASED FINANCIAL AND REPUTATIONAL RISKS

72. It is good practice to carry out due diligence checks on contractors and consortium members. Procuring entities can perform due diligence by independently verifying that a supplier or provider is who they claim to be and has the financial ability as well as the necessary capacity and capability to deliver over the life of the contract. The procuring entity should document all due diligence actions. All due diligence actions should be documented. At a minimum, the procuring entity should check that the supplier:

    - is who they claim to be, by looking at their legal set-up;
    - is financially sound, by checking their financial history;
    - can be trusted, by checking corruption indicators;
    - has good past performance of appropriate health and safety and employment practices;
    - has the capacity, capability and expertise to deliver, based on past performance;
    - has the right systems and processes to be able to deliver;
    - can deliver what is needed for the price quoted by testing the assumptions in their proposal; and
    - understands the contract deliverables and requirements and their obligations.[16]

73. Our review of the revised financial report found that the Contractor's consortium has changed significantly since the Government selected the Contractor as Regen's preferred bidder in September 2017, specifically:

    - Steinmuller Ltd replaced BWSC Volund Ltd as the Energy Recovery Facility's technology provider.
    - Iona Capital, a fund manager, joined the consortium in September 2019 as an equity partner. Iona Capital has a 50 per cent interest in the Contractor, as does Decco Ltd. Prior to this, the Contractor was wholly owned by Decco Ltd.

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[16] *Conducting due diligence checks*, New Zealand Government Procurement – Government Property Group, 2021.

- BWSC Volund, the engineering, procurement and construction (EPC) subcontractor, and the operations & maintenance provider, has indicated that it intends to withdraw from the waste EPC market. Therefore, the EPC sub-contractor may change.

74. The Ministry of Health did not perform due diligence on the original or replacement members of the Contractor's consortium. Performing due diligence checks on all members of the Contractor's consortium would have helped the Government identify, and mitigate or avoid, any risks arising from working with the consortium. Therefore, the Government may be exposed to increased financial and reputation risks.

Recommendation 5: The Government should perform due diligence checks on the Contractor and all members of the Contractor's consortium before financial close.

THE GOVERNMENT DID NOT OBTAIN VALUE FOR MONEY FROM SOME CONSULTANTS

75. In February 2018, we reported on the Government's use of consultants and temporary staff.[17] The report recommended the following in relation to the Government's use of consultants:

- The Government should monitor its spending on consultants.
- The Government should ensure that Requests for Proposals and Invitations to Tender are prepared for all open procurements and that they are in line with policies and procedures.
- The Government should develop standard terms and conditions for consultant contracts that ensure that its interests are protected and it is able to achieve value for money.
- The Government should establish effective policies, criteria and processes for evaluating and managing consultant contracts, including guidance on the options available to address poor performance and on carrying out post-contract evaluations.

76. As reported earlier, the Government hired external consultants to act as its financial, legal, technical and environmental advisors to assist in its decision-making on Regen. As of September 2021, the Government had spent $6.5 million on these external advisors. However, we found the following weaknesses in relation to the advisors:

- The Government estimated in its Evaluation Summary and Tender Recommendation for the procurement of Regen's financial, technical and environmental advisors that the professional fees for the consultancy services would be around $1 million. As of September 2021, the Government had spent $2.8 million on these consultants.

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17 *Government's Use of Consultants and Temporary Staff*, Office of Auditor General, February 2021.

- The Government had spent $3.7 million on legal advisers but it did not set a budget for this.
- The Ministry of Health did not appoint the legal advisor in an open, transparent and competitive way, as required by the Public Management and Finance Act.
- The terms of reference should have required the financial advisor to provide a value for money analysis. However, the revised financial report did not include one.
- Nor could we determine whether the terms of reference ensured that the Government would receive value for money from the consultants. For example, the purpose of the revised financial report was to enable the Government to assess the financial terms of the Regen project. However, the report, prepared in March 2021, did not include a value for money assessment, contrary to the requirements of the Public Management and Finance Act and the guidance in the Green Book. It is not clear why the financial advisor did not include a value for money assessment in the financial report, as this is an essential requirement of government policies and procedures and legislation.

VALUE FOR MONEY DURING REGEN'S PROCUREMENT

77. The Framework for Fiscal Responsibility requires that the Government consider PPPs when a financial appraisal demonstrates that a PPP will deliver better value for money than a conventionally funded alternative. If the Government is non-compliant with any of the requirements of the framework, the framework requires the Government to obtain written approval from the UK's Secretary of State before it:

- finalises its Strategic Policy Statements;
- incurs new loans or refinances any existing ones;
- proceeds with any project with a lifetime value of more than $10 million;
- uses public assets as collateral as part of any arrangement with an external party; or
- hypothecates any revenue.

78. This chapter assesses the value for money conclusions, and the basis for those conclusions reached during Regen's procurement.

THE GOVERNMENT USED FINANCIAL MODELS THAT HAD SOME INACCURATE ASSUMPTIONS

79. As part of its value for money analysis in the Outline Business Case in 2016, the Government's financial advisor prepared a financial model (the "initial financial model") to determine the NPV of the PPP and of a public sector comparator.

80. After the Government agreed on a contract price with the Contractor, its financial advisor prepared a revised financial report in March 2021. The purpose of the revised financial report was to assist the Government in its assessment of Regen's proposed financial terms. The report was underpinned by a financial model (the "revised financial model") that calculated estimates of the unitary charge based on different assumptions.

81. Both financial models relied on various assumptions to determine whether financing Regen using a PPP would provide better value for money than a conventionally funded alternative. Some of the key assumptions were the waste tonnage, inflation rate, contract period, discount rate and the revenue from electricity generated from the energy recovery facility. We assess the reasonableness of these assumptions below.

THE GOVERNMENT COULD HAVE INCREASED REGEN'S CAPACITY MUCH EARLIER THAN IT DID

82. The waste tonnage used in the initial financial model was reasonable at that time. However, the Government was not quick enough in identifying that the amount of waste produced annually was increasing and to account for the speed and the scale of the change.

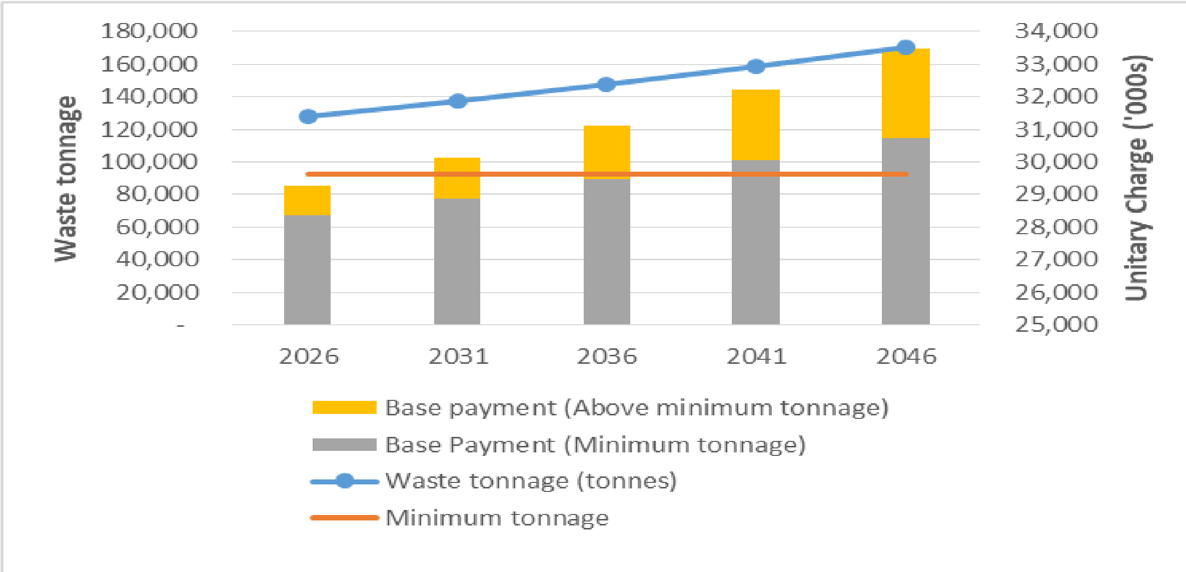
83. Based on actual data collected by the Department of Environmental Health in the 12 months to February 2016, the Government's financial advisor prepared the Outline Business Case for Regen with a proposed capacity of 75,000 tonnes of waste. This was a reasonable estimate given that the waste tonnage reported by the Economics and Statistics Office for that year was 74,000 tonnes

84. Our review of Economics and Statistics Office data found that the annual waste tonnage increased to over 100,000 tonnes a year from 2016 to 2020. However, the Government did not increase Regen's capacity until 2020, during negotiations with the preferred bidder after its appointment. As noted in '**Regen's objectives'**, this is one of the reasons why Regen was significantly delayed, and why the construction cost and the unitary charge have increased.

85. The Regen contract guarantees the Contractor a minimum of 92,500 tonnes of waste per year. In other words, if the Government fails to deliver the guaranteed minimum tonnage, it is still required to pay the Contractor the full cost of processing 92,500 tonnes of waste. In addition, the Regen contract requires the Contractor to process approximately 30,000 more tonnes of waste at a fixed fee. Therefore, the total tonnage that the Contractor is required to process for a fixed price is approximately 122,500 tonnes. The Government will pay a markup of 15 per cent on cost for any waste above the 122,500 tonnage level.

86. The Government's financial advisor prepared the revised financial model assuming that Regen will become operational in June 2024. The Regen contract's first full year of operation is 2025, and it will be active for only six months in 2050, its last operational year. We have used this information to present waste tonnage and the corresponding unitary charge at five-year intervals from 2026 to 2046 (Exhibit 7).

Exhibit 7: Estimated waste tonnage and the corresponding unitary charge between 2026 and 2046



Source: OAG analysis of the financial data in the revised financial model

87. The minimum tonnage will remain constant throughout the contract period. However, the Government's base payment will increase over time because of inflation. The revised financial model assumes that 128,000 tonnes of waste will be generated in the Cayman Islands in 2026. This will cost the Government $29.3 million in unitary charge expenses, of which $0.9 million relates to processing costs for waste tonnage above the guaranteed minimum threshold. The revised financial model shows that the Cayman Islands will generate 171,000 tonnes of waste in 2046. This will cost the Government $33.5 million in unitary charge expenses, of which $2.8 million will be processing costs for waste tonnage above the guaranteed minimum threshold.

88. The financial report estimates that the Cayman Islands will produce 119,000 tonnes of waste in 2021. This estimate is consistent with the latest available data from the Economics and Statistics Office at the date of the report. The estimate is higher than the guaranteed minimum tonnage but below the fixed price threshold of 122,500 tonnes. The financial report also forecasts that 170,000 tonnes of waste will be generated in the Cayman Islands by 2050, representing a 28 per cent increase from 2020.

89. Our review of published data found that, over the five-year period ending December 2020, the total annual waste that the Department of Environmental Health managed at the three landfills increased

by 31 per cent, from 102,000 to 133,000 tonnes.[18] The increase represents an average annual growth rate of 7 per cent. However, the revised financial model assumed an annual waste tonnage growth rate of 1.47 per cent. Applying an estimated annual waste tonnage growth rate of 2 per cent to the revised financial model shows that Regen will cost the Government $800 million over the 25-year period of the contract. The cost increases to $906 million at a growth rate of 3 per cent.[19]

90. The revised financial report should have contained a sensitivity analysis showing the impact on the unitary charge of different waste level forecasts. The lack of sensitivity analysis means that the Government was not aware of the potential increase in the unitary charge if its waste growth forecasts are inaccurate.

REGEN'S COST IS UNDERSTATED BECAUSE THE INFLATION RATE USED IN THE REVISED FINANCIAL MODEL WAS INACCURATE

91. In the Outline Business case, the Government's financial advisor used an inflation rate of 1.6 per cent in the analysis of value for money of the PPP compared with a conventionally funded alternative. The Government's financial advisor based this inflation rate on the "geometric mean of the historical rates published by the Economics and Statistics Office for the three most recent years where inflation was positive". However, using the same data, we calculated an inflation rate of 1.5 per cent.

92. The Government also forecasts inflation in its Strategic Policy Statements. In the 2016/17 Strategic Policy Statement, the Government said that it expected inflation to be 2.0 per cent, on average, in the three financial years to 2019. The 2016/17 Strategic Policy Statement was the last to be published before the financial advisor prepared the Outline Business Case in September 2016.

93. The Ministry of Health did not provide us with the financial model underpinning the value for money analysis in the Outline Business Case. As a result, we could not quantify the impact of the errors in the estimated inflation, if any, on the value for money analysis.

94. The actual unitary charge that the Government will pay to the Contractor will be adjusted annually based on the actual inflation rate in the Cayman Islands. The Government's financial advisor estimates that the unitary charge for the first year of the Regen contract will be $29 million.

95. Using the formula that the Government's financial advisor used to calculate the inflation rate in the initial financial model, we found that the inflation rate in the revised financial model should have

18 *The Cayman Islands' Compendium of Statistics 2020*, Economics and Statistics Office, July 2021.

19 Using the cumulative annual growth rate of 7 per cent results in forecast waste tonnage of approximately 990,000 tonnes in 2050, which is an unrealistic estimate. Therefore, we have shown the sensitivity of the unitary charge to annual waste tonnage growth rates of 2 and 3 per cent.

been 3.3 per cent. Our calculation was based on an average of the inflation rates from 2017 to 2019. Assuming an annual inflation rate of 3.3 per cent, Regen will cost the Government $891 million over its 25-year period, $100 million more than the estimate in the revised financial report.

96. The Government's 2020 Strategic Policy Statement (the last one published by the Government before it prepared the financial report in March 2021) forecast that inflation would increase by an average of 2.3 per cent in the four years to 2022. Assuming an annual inflation rate of 2.3 per cent, Regen will cost the Government $824 million over its 25-year period, $34 million more than the estimate in the revised financial report.

97. The estimated inflation rate of 1.6 per cent used in the financial report is lower than both the estimated inflation rate of 3.3 per cent based on the latest available data and the 2.3 per cent inflation forecast used by the Government in the 2020 Strategic Policy Statement. As a result, the unitary charge in the financial report, and in the signed Regen contract, is likely to be understated because the Government must bear all the increases in cost due to inflation.

REGEN'S COST IS UNDERSTATED BECAUSE THE GOVERNMENT USED AN INACCURATE DISCOUNT RATE IN THE REVISED FINANCIAL MODEL

98. The contract period and discount rates are key inputs into the initial financial model used to compute the value for money of the PPP and the conventionally funded alternative. The contract period should be the same as the proposed contract period, 25 years in Regen's case. Based on the summary of assumptions reflected in the Outline Business Case, the 25-year contract period used in the value for money analysis was reasonable.

99. The initial financial model should reflect a similar discount rate to determine the NPV of both the PPP and the conventionally funded alternative, and the discount rate should reflect the time value of money, for example the interest rate that the Government would pay to borrow an amount equal to the project's cost.

100. As reported previously, the Ministry of Health did not provide us with a copy of the initial financial model. Therefore:

- We could not ascertain if the Government's financial advisor spread the cost of the PPP and the cost of the conventionally funded alternative over the 25-year contract period in the initial financial model.
- We were unable to ascertain if the discount rates that the Government's financial advisor used in both the PPP and the conventionally funded alternative were reasonable; and
- We could not determine if the value for money analysis used the same discount rate for both alternatives. Using different discount rates would skew the results of the value for money assessment towards whichever alternative had a higher discount rate.

101. As stated earlier, in 2020, the Government obtained an emergency line of credit of $330.5 million at an interest rate of 3.25 per cent. However, the financial advisor used a discount rate of 3.5 per cent in the revised financial model. In discounted cash flow analysis, a higher discount rate gives a lower NPV. The NPV of the unitary charge using a discount rate of 3.25 per cent is approximately $420 million, $20 million more than estimated in the revised financial report.

THE FINANCIAL REPORT CONTAINS A CLEAR SENSITIVITY ANALYSIS FOR ELECTRICITY REVENUE

102. Regen includes an energy recovery facility for the generation of electricity from the treatment of non-recyclable waste. The Contractor intends to sell the electricity generated from the facility to the Caribbean Utilities Company, Ltd (CUC). The Government will offset the revenue from the sale of electricity against the unitary charge, thus reducing the overall cost of the project.

103. The Outline Business Case contains a summary of the quantitative value for money analysis. The analysis shows the estimated revenue from the sale of electricity to CUC. However, the Ministry of Health did not provide us with a copy of the initial financial model. Therefore, we were unable to obtain the assumed price of electricity used in the financial model and ascertain whether or not it was reasonable. For the same reason, we could not quantify the impact of any errors in the assumed price of electricity on the value for money analysis.

104. The financial advisor used a selling price of 15 cents per kilowatt-hour for electricity generated from Regen to estimate the unitary charge in the revised financial model. The financial report includes an analysis of the sensitivity of the unitary charge to the price of electricity considering three additional price points i.e. 7.3, 9.8 and 20.0 cents per kilowatt-hour.

105. We analysed the electricity generation costs incurred by CUC over the three months to February 2021. We found that the average cost of generating one kilowatt-hour of electricity was approximately 8 cents for electricity generated from fuel and 0.6 cents for electricity generated from renewable sources.

106. CUC pays significantly lower rates than the rates used in the financial report to buy electricity generated from renewable sources. However, the financial report states that the Government can, through the Utility Regulation and Competition Office of the Cayman Islands, set the price of electricity sold to CUC, if CUC and the Contractor cannot agree on a fair price. This statement is consistent with advice from the Government's legal advisor. Therefore, the Government's estimate of electricity revenue is reasonable. There is an additional risk that if the Government forces CUC to accept the electricity generated at a higher price than it usually pays, then it may pass this additional cost on to consumers.

THE CALCULATION OF THE UNITARY CHARGE IS CONSISTENT WITH BEST PRACTICE

107. Best practice requires that the computation of the unitary charge should be based on only capital costs, equipment maintenance and financing costs. We found that the financial model for the calculation of the unitary charge is consistent with best practice.

Recommendation 6: The Government should ensure that it uses assumptions that are as accurate as possible in its financial models for options appraisal. The Government should calculate the sensitivity of its appraisals to changes in significant assumptions underpinning the financial models.

THE GOVERNMENT COULD HAVE SAVED OVER $200 MILLION BY FUNDING REGEN CONVENTIONALLY

108. As noted in paragraph 66, Regen's construction cost has increased by $76 million since the Contractor's initial bid, submitted in April 2017.

109. After the Government agreed a revised price with the Contractor, its financial advisor prepared a revised financial report, in March 2021. The purpose of the revised financial report was to assist the Government in its assessment of the Contractor's proposed financial terms.

110. The report concluded that a PPP with the Contractor was the only viable option available to the Government, "as there is no do-nothing option". It is not clear how the Government came to this conclusion because the report did not include an updated options analysis.

111. The report also contained a qualitative value for money assessment of the Regen contract compared with a conventionally funded alternative. However, it did not contain a quantitative value for assessment because the Government's financial advisor stated that it could not perform one. The lack of a quantitative value for money assessment contravenes section 17(b) of the Framework for Fiscal Responsibility.

112. We previously reported that the Government borrowed $330.5 million at an interest rate of 3.25 per cent in 2020. We also noted that the Government will pay the Contractor an internal rate of return[20] of 9.4 per cent, 6.15 per cent higher than the cost of Government borrowing.

113. In a 2018 report, the UK's National Audit Office (NAO) reported that investors in PPPs could expect to receive a return of between 2 and 4 per cent above the cost of government borrowing. [21] The

[20] The internal rate of return is the expected compound rate of return that an investor will earn on a project or investment.

[21] *PFI and PF2*, National Audit Office, 2018.

NAO's forecast was based on PPP deals entered into since 2013. The NAO also reported that some PPP deals agreed in 2013, when market conditions were poor, provided internal rates of return that were more than 5 per cent above Government borrowing.

114. Small changes to the cost of capital can have a significant impact on costs. As an illustration, the Government would pay $95 million in interest if it borrowed $206 million (the estimated construction cost of the regen facility) at an interest rate of 3.25 per cent over 25 years. At an interest rate of 9.4 per cent, the interest paid over 25 years would triple, to $331 million, an increase of $236 million.

115. Therefore, an updated value for money assessment may have shown that conventional funding or borrowing would provide better value for money than the PPP.

THE GOVERNMENT COULD SAVE OVER $50 MILLION WITH A CAPITAL INJECTION INTO REGEN

116. The revised financial report states that the Government can reduce the amount of the unitary charge by making a capital injection on the first day that the Regen facility becomes operational. It states that a $5 million capital contribution from the Government would result in savings of $13 million in the unitary charge over Regen's contract period of 25 years. However, the financial report did not state the maximum capital contribution that the Government could make.

117. From a review of correspondence between Government officials, we found that the Contractor will allow the Government to inject a maximum of only $20 million into the project. The same correspondence asserts that the Government will save approximately $52 million over the contract period by doing so.

118. However, there is no evidence that the Contractor agreed to this option. Therefore, it is not clear if this option was ever, or is still, available to the Government.

Recommendation 7: The Government should ensure that all key terms and conditions agreed with its suppliers are reflected in the supporting contract.

Recommendation 8: The Government should confirm with the Contractor how much capital it can inject into the Regen project.

Recommendation 9: The Government should inject capital into Regen to save on future costs.

VALUE FOR MONEY DURING REGEN'S CONTRACT LIFE

119. PPPs enable governments to obtain long-term value for money through appropriate risk transfer to the private sector over the life of a project – from design and construction to operations & maintenance.[22]

120. This chapter assesses the allocation of risk between the Government and the Contractor in the Regen contract and the value for money that the Government will obtain during the contract period. It also assesses:

- the adequacy of the safeguards that the contract provides to the Government to ensure that the Contractor performs the waste management services to the agreed levels; and
- whether or not the Government will obtain value for money over the contract life.

THE ALLOCATION OF RISKS BETWEEN THE GOVERNMENT AND THE CONTRACTOR HAS CHANGED

121. In March 2021, the Government's legal advisor prepared a high-level summary of the main points of the Regen contract, *ISWMS Project: High Level Project Agreement Summary* (the Legal Summary). The Legal Summary includes, among other information, the allocation of risks between the Government and the Contractor based on the contract.

122. From our review of the Legal Summary, we found that, overall, the Government appears to bear most of Regen's risks. This significantly weakens one of the main benefits of a PPP.

123. The Outline Business Case, which was developed before the procurement process started, contained a summary of the proposed risk allocation between the Government and the as-yet-to-be-determined preferred bidder. It would have been useful to compare the risk allocation in the Outline Business Case with that in the contract. However, the Government has not prepared a summary of the final risk allocation reflected in the contract.

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22 *Government Objectives: Benefits and Risks of PPPs*, World Bank, 2020.

THE GOVERNMENT BEARS THE FULL RISK OF ALL CHANGES IN LAWS AND REGULATIONS

124. As with any other government contract or service provided, Regen will be affected by changes in laws and regulations over its 25-year contract period.

125. Based on the best practice WIDP Contract, the Government should have accepted the risk of only those future changes in laws and regulations that affect Regen specifically. The Contractor should have retained the risks of future changes in laws that apply to the broader population and the business community.[23]

126. However, the current Regen contract is not consistent with the WIDP Contract. The previous Government agreed to take on the risk of changes in all future laws and regulations, because, in its view, it controls the passing of new laws and regulations. This is a significant risk for the Government to accept. The Government will need to ensure that it does not pass any laws or regulations that adversely affect Regen, whether directly or indirectly, over the 25-year period of the contract. If it does, the contract requires that the Government to indemnify the Contractor for the impact of these laws and regulations.

THE CONTRACT DOES NOT CONTAIN ADEQUATE SAFEGUARDS FOR MOST PROJECT RISKS

127. Appropriate risk allocation between the public and private sectors is the key to achieving value for money on PPPs. The main categories of risks are:

- design and construction risks
- operating risks
- demand risks
- residual value risks
- technology/obsolescence risks
- external finance risks
- price risks and
- risk of contractor default.[24]

128. The Government should have sought to achieve not the maximum but rather the optimum transfer of risk, allocating risks to the Contractor that the Contractor is best placed to manage. Our review of the Legal Summary found that the Regen contract contains some safeguards for project risks.

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23 See the *Glossary of terms and abbreviations* on page 6 for a definition of the WIDP Contract.
24 *Examining the value for money of deals under the Private Finance Initiative,* National Audit Office, 1999.

However, overall, the safeguards are inadequate. We examine each of the risks in further detail below.

THE CONTRACT INCLUDES ADEQUATE SAFEGUARDS FOR DESIGN AND CONSTRUCTION RISKS

129. Best practice in PPPs suggests that the private party should meet any cost increase arising from poor estimating, delays or failure to meet the client's requirements. It also recommends that the public entity should not pay the private party until the start of service delivery.[25]

130. The Regen contract meets all of these requirements. The contract states that the Contractor is responsible for the design of the waste management facilities and therefore bears the risk of the design's compliance with the project specifications. It also states that the Government will start paying the unitary charge only when the Regen facility is operational. However, in the case of construction delays, the Government's only remedy is termination, which is consistent with the WIDP Contract.

THE CONTRACT INCLUDES ADEQUATE SAFEGUARDS FOR OPERATING RISKS, BUT THE CONTRACTING PARTIES HAVE NOT YET FINALISED KEY DOCUMENTS

131. Operating risks include the risk that the Contractor fails to meet performance standards for service delivery or fails to make assets available for use. Exhibit 8 below summarises the safeguards included in the Regen contract to protect the Government from operating risks.

Exhibit 8: Summary of the Government's safeguards for operating risks

Risk	Description and safeguards
The Contractor cannot export electricity from the Regen facility to the national grid.	Based on the revised financial report, the Government's financial advisor forecast that Regen will generate approximately $406 million in revenue from the sale of electricity over the 25-year contract period. The Government will use this revenue to offset the unitary charge. The risk that the Contractor cannot export electricity to the national grid is significant. However, the Government, the Contractor and CUC have significant commercial incentives to ensure that this risk does not materialise.

[25] Ibid.

Risk	Description and safeguards
	The financial report also estimates that Regen's Energy Recovery Facility will generate 35.5 megawatts of electricity. However, the contract does not specify what sanctions the Contractor will face if the Energy Recovery Facility generates less electricity than anticipated. As a result, the Government may incur higher than anticipated unitary charge costs.
Damage to the environment and health and safety.	The contract requires the Contractor to ensure that the delivery of the agreed services does not damage the environment. It also gives the Government the right to step in and operate the Regen facility if there is a serious or immediate risk to the health or safety of persons, property or the environment. The Government would have to compensate the Contractor in such a case, but the compensation payable is consistent with the WIDP Contract.
The Contractor does not accept some waste delivered to the Regen facility.	The contract requires the Contractor to accept all waste delivered to the Regen facility. It also gives the Government the right to step in and operate the facility if the Contractor does not accept waste delivered to the site for more than 48 consecutive hours. In such circumstances, the Regen contract requires the Government to compensate the Contractor, consistent with the WIDP Contract.
The unitary charge invoiced by the Contractor is inaccurate.	Under the contract, the Contractor will invoice the Government monthly for unitary charge payments. The Government can only withhold unitary charge payments if it disputes a Contractor's invoice within 15 business days of receipt.

Risk	Description and safeguards
	If the Government does not dispute an invoice within 15 business days of receipt, it can still do so within four months. However, the Government must first pay the invoice. The contract exempts only fraudulent invoices from the above conditions.
The Contractor is unable to obtain insurance for some risks.	The contract requires the Contractor to obtain the necessary insurance to cover construction and operational risks and then recover the insurance cost from the Government. If there is no available insurance for some risks, or the risk is uninsurable, the Government can either indemnify the Contractor against such risks or terminate the contract and compensate the Contractor. However, the Government and the Contractor have not agreed on an appropriate insurance solution for the project.
The Contractor fails to provide the waste management services.	We discuss the Government's safeguards against the risk that the Contractor fails to provide the waste management services in paragraphs 152 to 154.

Source: OAG analysis of the ISWMS Project: High Level Project Agreement Summary

132. Section 15 of Annex A of the Framework for Fiscal Responsibility requires the Government to include its contingent liabilities in its Strategic Policy Statements. The framework also requires the Government to explain in its Strategic Policy Statements how each contingent liability will be managed or financed and to report progress to date. International Public Sector Accounting Standards also require the Government and Government-owned entities to disclose contingent liabilities in their annual financial statements.

133. We found that the Government's 2022–2024 Strategic Policy Statement did not contain details of the Government's contingent liabilities arising from its contractual obligations for Regen's contract and the Land Transaction Agreement.[26]

[26] We included a summary of the Land Transaction Agreement in paragraphs 22 to 28.

134. In addition, as stated in paragraph 26, the Government will retain the historical environmental liability for waste from the current George Town landfill site. Therefore, the Government should disclose the contingent liability for the historical environmental liability in its financial statements.

Recommendation 10: The Government should update the contingent liabilities disclosures in its recently published 2022–2024 Strategic Policy Statement.

Recommendation 11: The Government should disclose all of its contingent liabilities arising from Regen and the Land Transaction Agreement in its financial statements.

IT IS NOT CLEAR HOW THE GOVERNMENT DETERMINED THE MINIMUM WASTE TONNAGE

135. Because of the uncertainty of long-term forecasts, best practice requires that public entities consider whether they should put in place mechanisms to claw back part of any future windfall gains from PPPs.

136. The revised financial report states that the Contractor proposed a 50 per cent profit share for all excess profits from Regen. However, we found that the Regen contract does not contain this proposal. We also found that the Government will actually pay more if waste tonnage rates are higher than the estimates used to calculate the unitary charge.

137. As reported earlier, the Government is entitled to a fixed processing fee for approximately 122,500 tonnes a year. However, the Government forecasts that the Cayman Islands will generate approximately 170,000 tonnes of waste by 2050. As reported earlier, the Government did not perform a sensitivity analysis to determine the optimal minimum tonnage in the contract.

138. The contract states that the Government will pay a markup of 15 per cent on cost for any waste above the 122,500 tonnage level. Our analysis found that waste generated in the Cayman Islands had increased by 245 per cent in the seven-year period to 2019. Should the waste generated increase at a similar rate, the Government will be required pay significantly higher costs in terms of the unitary charge.

THE CONTRACT LIMITS THE GOVERNMENT’S RIGHT TO INSPECT THE REGEN FACILITY

139. The residual value risk is the risk that the waste management facility is not in good condition when the Contractor hands it back to the Government at the end of the contract period.

140. The contract requires the Contractor to design and implement maintenance procedures to ensure that the Regen facilities are available, achieve their anticipated working life and are in good condition when handed back to the Government at the end of the contract period.

141. The contract gives the Government the right to conduct a comprehensive survey 18 months before the end of the contract period. The Government can withhold part of the unitary charge payments made in the final year to create a sinking fund towards remediation costs for the Regen facility.

142. The contract also gives the Government the right to inspect the Regen facilities to ensure that the Contractor is maintaining them appropriately. The Government can commission rectification works if the facility is poorly maintained and recover the cost of these works from the Contractor by withholding future unitary charge payments. However, the Government can inspect the facility only once every two years in case of persistent poor maintenance by the Contractor.

THE CONTRACT DOES NOT CONTAIN ANY SAFEGUARDS FOR TECHNOLOGY/OBSOLESCENCE RISK

143. Technology or obsolescence risk is the risk that the quality of service delivery may be adversely affected if the equipment or other assets used in the service delivery become obsolete. Alternatively, there could be a need to make a further financial investment in the project to introduce equipment or other assets based on new technology.[27]

144. We found that the contract does not contain any safeguards for technology or obsolescence risk.

THE GOVERNMENT HAS NOT CONSIDERED THE SENSITIVITY OF THE FINANCIAL MODEL TO CHANGES IN INTEREST RATES

145. The Contractor is financing almost all its capital expenditure on the Regen project using debt obtained from its owners, Decco Ltd and Iona Capital Cayman Limited. The contract requires the Contractor to obtain direct approval from the Government for any third-party debt refinancing. However, the unitary charge includes the cost of servicing the debt that the Contractor will acquire from its owners. Therefore, there is a risk that the unitary charge will be higher if the Contractor's owners raise the interest rates on their debt.

146. The Government has accepted this risk. However, it did not quantify the possible effects of changes in interest rates. Any change in interest rates will increase the unitary charge and negatively affect Regen's current lack of long-term value for money.

27 *Examining the value of money of deals under the Private Finance Initiative*, National Audit Office, 1999.

THE SAFEGUARDS FOR PRICE RISK HAVE EXPIRED

147. The contract set a fixed price of $206 million for Regen that was effective until 30 September 2021. However, the Government and Contractor did not achieve financial close by that date, creating a significant risk that the contract price will increase further.

Recommendation 12: The Government should, as far as possible, renegotiate any departures from the WIDP Contract before it reaches financial close with the Contractor. At a minimum, the Government should amend the Regen contract to:

- **transfer the risk of changes in indirect laws back to the Contractor in line with the WIDP Contract;**
- **include arrangements for clawback of future profits;**
- **specify the Contractor's sanctions for any failure to generate the anticipated electricity from the Energy Recovery Facility;**
- **include safeguards for changes in technology;**
- **include adequate rights to inspect the Regen facilities to ensure that the Contractor is maintaining them satisfactorily;**
- **include safeguards for changes in interest rates on debt incurred by the Contractor; and**
- **ensure that it has unrestricted access to the Contractor's cost and performance records.**

Recommendation 13: The Government should ensure that it finalises arrangements for Regen's insurance with the Contractor as soon as possible.

THE GOVERNMENT FACES SIGNIFICANT FINANCIAL RISK IF IT BREACHES THE CONTRACT

148. The contracts states that, if the Government breaches the contract, it is required to compensate the Contractor as if the Contractor had operated Regen for the entire 25-year contract period. This is consistent with the WIDP Contract, and reasons why the Government might default are few and within the Government's control. However, it represents a significant financial risk because the Government estimates that Regen will cost $790 million over its 25-year contract period. The Government should therefore put in place measures to ensure that it does not breach the contract.

149. The Government has the right to terminate the contract if the Contractor breaches the contract, but the Contractor has the right to develop a plan to remedy the default. The Government can terminate the Regen contract if the Contractor does not successfully implement the plan. This is consistent with the WIDP Contract.

Recommendation 14: The Government should put in place mechanisms to ensure that it does not breach any of its obligations in the Regen contract.

THE GOVERNMENT WILL NOT OBTAIN VALUE FOR MONEY THROUGHOUT THE CONTRACT LIFE

150. To ensure that the Contractor performs the agreed-upon services satisfactorily, the contract should contain appropriate sanctions and penalties for poor service delivery. In addition, the Government should ensure that the contract entitles it to unrestricted access to information about the costs and performance levels retained internally by the private entity.

151. We assessed the extent to which the contract clearly stipulates the sanctions that the Contractor will face for poor service delivery, and the Government's access to information under the contract. Our findings are set out below.

THE CONTRACTING PARTIES HAVE NOT YET SPECIFIED THE SERVICE LEVELS AND SANCTIONS FOR POOR PERFORMANCE

152. The contract refers to a Payment Mechanism and a Performance Measurement Framework. The Payment Mechanism will govern the payments due to the Contractor for providing the waste management services. The purpose of the Performance Measurement Framework is to ensure proper performance of the waste management services by imposing penalties for poor performance, including the Government's right to terminate the contract. The two documents are separate, accompanying documents to the contract. The contract:

- requires the Contractor to accept, with a few reasonable exceptions, all waste delivered to the Regen facility;
- requires the Contractor to operate and maintain the facilities satisfactorily;
- requires the Contractor provide all plant and equipment needed to operate the waste treatment facilities;
- specifies the service and performance levels expected of the Contractor; and
- establishes the procedures and for dispute resolution and contract renegotiation.

153. If the Contractor fails to provide the agreed waste management services satisfactorily, the Government's primary remedy is to make payment deductions from the Contractor in accordance with the Performance Measurement Framework and Payment Mechanism. The Government can also incentivise the Contractor to perform the services to the required standards through the threat of, or actual, termination of the contract.

154. The Government and the Contractor will include additional details on the expected service and performance levels in the Payment Mechanism and the Performance Measurement Framework. However, these two documents have yet to be prepared. These are fundamental to the Government's ability to effectively oversee and manage the contract, and it is essential that these are prepared and finalised before financial close of the contract.

THE CONTRACT DOES NOT GIVE THE GOVERNMENT UNRESTRICTED ACCESS TO INFORMATION ABOUT REGEN'S COSTS

155. The contract requires the Contractor to maintain complete records of the costs of performing the works and services under the contract. However, the Government and its auditors are allowed to access cost records only twice a year. As a result, the Government may be unable to verify the accuracy of invoices from the Contractor.

Recommendation 15: The Government should ensure that the Payment Mechanism and the Performance Measurement Framework are finalised as soon as possible.

Recommendation 16: The Government should ensure that the Payment Mechanism and the Performance Measurement Framework contain sufficient incentives and sanctions to ensure that the Contractor operates the Regen facility satisfactorily.

CONCLUSION

156. In August 2021, my Office started a review of the Regen contract that was signed by the previous Government in March 2021. The Regen project is the proposed solution to integrated waste management, and is the first public private partnership (PPP) agreement that the Government has entered into. PPP agreements can provide governments with options to invest in infrastructure without them having to pay the upfront construction costs. However, most governments have moved away from PPPs as they generally do not provide value for money.

157. The Government has progressed with the Regen project as a PPP agreement under the false assumption that a PPP is not a form of borrowing. It is also worth mentioning that the contract does not cover waste collection, which will remain the responsibility of the Government.

158. The Government first set out its policy for this waste disposal system in 2013. However, despite being a priority for the Government since 2014, the procurement of an integrated solid waste management system, is still ongoing, more than seven years later.

159. The project has experienced a protracted procurement process. The Government selected Waste Solutions Cayman Ltd. (the "Contractor") as Regen's preferred bidder in September 2017. However, it took almost four years before the Government signed a contract with the Contractor in March 2021. During this period the consortium members changed without due diligence checks, the estimated waste tonnage increased, the construction cost and the cost to the public purse increased significantly, and most of the risks transferred back the Government. During the same period a number of key civil servants changed, reducing the expertise and knowledge to one main individual. I encourage the Government to operate as a more intelligent client during the ongoing negotiations and contract management for Regen, and for future major capital projects.

160. The Government prepared an Outline Business Case (OBC) for the project in 2016. However, this OBC was fundamentally flawed because the Government erroneously concluded that a PPP was not a form of borrowing. This error meant that a proper appraisal of a PPP against a conventionally funded alternative was not carried out, and the options analysis was skewed towards a PPP. The OBC did not demonstrate that a PPP was the best financing option.

161. After selecting the Contractor, the Government increased Regen's waste management capacity by 15 per cent, which led to in a 58 per cent increase in the cost of building Regen's facilities. The Government did not assess the reasonableness of this increase in construction costs.

162. Once the Regen facility has been constructed and becomes operational the Government will pay the Contractor an annual unitary charge for operating the facility. These unitary charges are estimated to cost at least $790 million over the 25-year contract period. The Government has not

considered the unitary charge's impact on its future borrowing limits and financial ratios. The estimated cost of $790 million is also likely to be understated because some of the assumptions in the underlying financial model were inaccurate. In addition to the estimated $790 million cost of Regen, the Government will continue to incur the costs of refuse collection. The Department of Environmental Health's operating expenses for the 2020 financial year were $13.5 million.

163. The Government did not carry out an updated value for money assessment after it agreed the construction cost with the Contractor. Doing this is very likely to have shown that conventional funding or borrowing would provide better value for money than the PPP. For example, the unitary charge is based on an internal rate of return of 9.4 per cent. This is significantly higher than borrowing rates that the Government could have received from elsewhere; the Government agreed a line of credit in 2020 that had an interest rate of 3.25 per cent. However, there is scope for the Government to save over $50 million by injecting capital into Regen and I would encourage them to discuss this option with the Contractor.

164. The Government appears to bear most of Regen's risks, significantly weakening one of the main benefits of a PPP. If the Government breaches the contract, it is required to compensate the Contractor as if the Contractor had operated Regen for the entire 25-year contract period.

165. In addition to the Regen contract, the Government and Dart Enterprises Ltd signed a Land Transaction Agreement so that the Regen facility could be sited at their preferred location. Under the agreement, the Government gave away 58 acres of land to Dart Enterprises Ltd in exchange for 17 acres. Because this is a separate agreement the land will transfer no matter whether the Government and the Contractor reach financial close for Regen or not. Given this agreement, the lack of capacity at the landfill site, and the time needed to re-procure, I believe that the Government has to proceed with the project and negotiate the best deal that it can.

166. At the time of our review, the contracting parties have not yet finalised some key documents, i.e. the Payment Mechanism and the Performance Measurement Framework. These need to be completed as soon as possible and to the best advantage of the Government.

167. The Government did not prepare a Final Business Case to reassess the value for money prior to signing the contract in March 2021. This is extremely disappointing. I previously reported in 2017 and in 2020, in the case of the airport redevelopment project, that the lack of Final Business Cases for major capital was a significant gap in the accountability process. In my view the project will not provide value for money.

168. The assistance and cooperation we received from government officials in all phases of the audit is gratefully acknowledged. Without their help, the audit could not have been completed.

Sue Winspear, CPFA

Auditor General

George Town, Grand Cayman

Cayman Islands

4th December 2021

APPENDIX 1 – ABOUT THE AUDIT

OBJECTIVE

1. The objective of the audit was to determine whether the Government will obtain value for money from the Integrated Solid Waste Management System for the Cayman Islands (Regen) contract.

2. The audit sought to answer the following questions:

   - Did the Government clearly set out Regen's objectives?
   - Did the Government clearly demonstrate that a PPP was better value for money than conventional funding?
   - Does the contract signed with the Contractor ensure that the Government will obtain value for money over the contract life?

CRITERIA

3. Audit criteria set out the expectations against which an audit can assess observed performance in order to develop findings, make recommendations as appropriate and conclude on audit objectives.

4. We set out the criteria against which the audit proposed to assess whether the Government will obtain value for money from the Regen contract below:

   - The Government prepared the Outline Business Case and Final Business Case in line with good practice.

   - The Outline Business Case and Final Business Case demonstrated that a PPP was most likely to be the best way forward for Regen.

   - The Cabinet approved the Outline Business Case and Final Business Case in accordance with the Public Management and Finance Act.

   - The Outline Business Case and Final Business Case clearly stipulated a timetable for Regen.

   - The Outline Business Case specified Regen's objectives.

   - The Outline Business Case specified Regen's benefits in terms of outputs and outcomes.

   - The Government clearly documented Regen's scope of risk transfer in the Outline Business Case and Final Business Case.

- The Outline Business Case demonstrated that Regen was affordable and was within the Government’s budget limits.
- The Outline Business Case and Final Business Case showed that undertaking Regen would not have an adverse impact on the Government’s compliance with the borrowing limits in the Framework for Fiscal Responsibility.
- The Government complied with the prerequisites for alternative financing using PPPs set out in its Framework for Fiscal Responsibility.
- The Outline Business Case demonstrated the rationale for Regen’s chosen procurement strategy.
- The Government updated the Final Business Case to reflect new information received post procurement (i.e. any changes in scope, benefits, outputs/outcomes, costs, timescale).
- The Government reassessed Regen based on the updated information (post procurement).
- The Final Business Case demonstrated that Regen would meet its initially specified benefits in terms of outputs and outcomes.
- The Final Business Case demonstrated that Regen was affordable and was within the Government’s budget limits.
- The Government complied with the prerequisites for alternative financing using PPPs as set out in the Framework for Fiscal Responsibility.
- The Government documented the budgets for external consultants in the Outline Business Case and Final Business Case and monitored and managed the budgeted costs of external consultants against the set budgets.
- The Government appointed its external advisors (financial, legal, technical and environmental) in accordance with the relevant guidance, e.g. the Financial Regulations and the Ministry of Health’s procurement manual.
- The Government prepared clear terms of reference outlining the outputs expected from external consultants.
- The Government specified outputs in the terms of reference issued to external advisors that ensured value for money.
- The initial financial model used by the Government was based on the initial project specifications.
- The initial financial model demonstrated that a PPP was better value for money than conventional funding.

- The initial financial model took the total cost of the project into account when assessing value for money.
- The costs of the PPP and conventional funding were both spread over the 25-year contract period in the initial financial model.
- The Government used reasonable discount rates in the value for money analysis of the public sector comparator and the PPP.
- The Government used reasonable assumptions in the initial financial model, i.e. inflation rates, waste tonnage and the price it would receive for electricity sold to CUC.
- The Government prepared a sensitivity analysis of the initial financial model, and the sensitivity analysis demonstrated that the Government should finance Regen using private capital only.
- The Government used a revised financial model based on the updated project specifications.
- The revised financial model took into account Regen's full cost when assessing value for money.
- The revised financial model demonstrated that a PPP was better value for money than conventional funding.
- In the revised financial model, the Government spread the cost of the PPP and the cost of conventional funding over the 25-year contract period.
- The Government used reasonable discount rates in the value for money assessment of the public sector comparator and the PPP.
- The Government used reasonable assumptions in the revised financial model, i.e. inflation rates, waste tonnage and the price it would receive for electricity sold to CUC.
- The Government carried out a sensitivity analysis of the revised financial model, and this demonstrated that Regen should be fully funded by private capital.
- Changes in the price (cost variations) following the increase in Regen's guaranteed minimum tonnage from 80,000 tonnes per annum to 92,500 tonnes per annum were reasonable.
- The rates of return payable to the Contractor are reasonable compared with similar PPP projects elsewhere.
- The costs included in the unitary charge are reasonable and consistent with best practice, i.e. capital costs, equipment maintenance and financing costs only.

- The Government performed due diligence checks on the Contractor and members of the Contractor’s consortium (including any new members).
- The contract clearly specified the allocation of risks between the Government and the Contractor and the risk allocation is consistent with the risk allocation in the business cases.
- The contract requires the Contractor to give the Government access to information and facilities necessary to monitor the Contractor’s performance for the duration of the contract.
- The contract clearly specifies the service and performance levels expected of the Contractor.
- The Regen contract gives the Government (and its auditors) the right to access the Contractor’s performance and cost records for verification purposes.
- The contract clearly specifies the procedures for dispute resolution and contract renegotiation.
- The contract clearly specifies the sanctions that the Contractor will face for late or unsatisfactory service.
- The contract allows the Government to claw back part of any future windfall gains that the Contractor may earn, to allow sharing of such benefits.
- The contract sets out the mechanisms for the Government to ensure that the Contractor maintains the waste management facilities to the required standards during the contract duration and before handover to the Government upon the expiry of the contract.
- The contract contains adequate safeguards for the following risks:

  i. design and construction risk, and commissioning and operating risks;
  ii. demand (waste tonnage) risk;
  iii. residual value risk;.
  iv. technology/obsolescence risk;
  v. normal business regulations risk, e.g. taxes;
  vi. external finance risk;.
  vii. price risk;
  viii. risk of contractor default.

- The new Cayman Islands Government assessed Regen’s risks against its strategic objectives and assumptions.

AUDIT SCOPE AND APPROACH

5. The audit focused on the Regen project, from inception to date. Where possible, we sought data relating to activities, costs and results from the Regen’s inception in 2014 to October 2021. The

audit did not cover the *Strategic Outline Case: Integrated Solid Waste Management System*, a document prepared by the Government, the Early Works Agreement for the Cayman Islands ISWMS Project signed between the Government and Decco Ltd or the Land Transaction Agreement signed between the Government and Dart Enterprises Ltd.

6. We conducted the audit in accordance with The International Standards of Supreme Audit Institutions. The approach to the audit included:

- conducting interviews with key stakeholders, including Ministry of Health and other Government officials involved with the project;
- reviewing documents relating to Regen, including the Strategic Outline Case, the Outline Business Case, procurement documents, the contract and supporting schedules, Cabinet Papers, legislation, budget documents, legal reports and financial reports and statements;
- analysing financial information, e.g. the cost incurred on Regen to date.

  researching international leading practices, e.g. the Green Book and past audit reports about PPPs from the UK's National Audit Office.
- analysing audit evidence and assessing against agreed criteria to develop findings, recommendations and a conclusion on the audit objective;
- providing a draft report to relevant government officials for review of factual accuracy and obtaining responses to the report's recommendations (see Appendix 2).
- presenting a final report of the audit to the Parliament.

AUDIT STAFF

7. The audit was carried out by Adrian Murenzi, Audit Manager (Performance Audit) under the direction of Angela Cullen, Deputy Auditor General (Performance Audit). We were supported by staff from the UK's National Audit Office.

APPENDIX 2 – RECOMMENDATIONS

Recommendation	Management Response	Responsibility	Date of planned implementation
1. The Government should prepare an Outline Business Case and a Final Business Case for all major capital projects, as required by its framework for major capital projects and The Procurement Act, 2016. The Outline Business Case and Final Business Case should: • contain a comprehensive options analysis; • specify the project's benefits in terms of SMART outputs and outcomes; • contain a qualitative and quantitative value for money analysis justifying the selected alternative.	*No management responses were received.*		
2. The Government should specify Regen's benefits in the form of SMART outcomes and outputs.			
3. The Government should, prior to financial close, review all price increases proposed by the Contractor to ensure that they are reasonable.			

Recommendation	Management Response	Responsibility	Date of planned implementation
4. The Government should calculate Regen's impact on its future borrowing limits and financial ratios to ensure that the limits and ratios comply with the Public Management and Finance Act. The cost of the unitary charge for Regen should also be incorporated into forecast borrowing ratios in future Strategic Policy Statements.			
5. The Government should perform due diligence checks on the Contractor and all members of the Contractor's consortium before financial close.			
6. The Government should ensure that it uses assumptions that are as accurate as possible in its financial models for options appraisal. The Government should calculate the sensitivity of its appraisals to changes in significant assumptions underpinning the financial models.			
7. The Government should ensure that all key terms and conditions agreed with its suppliers are reflected in the supporting contract.			

Recommendation	Management Response	Responsibility	Date of planned implementation
8. The Government should confirm with the Contractor how much capital it can inject into the Regen project.			
9. The Government should inject capital into Regen to save on future costs.			
10. The Government should update the contingent liabilities disclosures in its recently published 2022–2024 Strategic Policy Statement.			
11. The Government should disclose all of its contingent liabilities arising from Regen and the Land Transaction Agreement in its financial statements.			
12. The Government should, as far as possible, renegotiate any departures from the WIDP Contract before it reaches financial close with the Contractor. At a minimum, the Government should amend the Regen contract to: • transfer the risk of changes in indirect laws back to the Contractor in line with the WIDP Contract;			

Recommendation	Management Response	Responsibility	Date of planned implementation
• include arrangements for clawback of future profits; • specify the Contractor's sanctions for any failure to generate the anticipated electricity from the Energy Recovery Facility; • include safeguards for changes in technology; • include adequate rights to inspect the Regen facilities to ensure that the Contractor is maintaining them satisfactorily; • include safeguards for changes in interest rates on debt incurred by the Contractor; and • ensure that it has unrestricted access to the Contractor's cost and performance records.			
13. The Government should ensure that it finalises arrangements for Regen's insurance with the Contractor as soon as possible			
14. The Government should put in place mechanisms to ensure that it does not breach any of its obligations in the Regen contract.			

Recommendation	Management Response	Responsibility	Date of planned implementation
15. The Government should ensure that the Payment Mechanism and the Performance Measurement Framework are finalised as soon as possible.			
16. The Government should ensure that the Payment Mechanism and the Performance Measurement Framework contain sufficient incentives and sanctions to ensure that the Contractor operates the Regen facility satisfactorily.			

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Office of the Auditor General
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July 2024