E&U 2025 -3-Draft Determination - CUC Generation Lifecycle Development Application



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## A. Executive Summary

- The Board of the Utility Regulation and Competition Office (the "Office" or "URCO") has reviewed the Caribbean Utilities Company Ltd.'s submission and business case in accordance with statutory duties and licence framework. While recognising the importance of reliable capacity for Grand Cayman, the submission lacks sufficient independently verifiable technical, economic, and policy evidence. Deficiencies include absence of unit-specific inspections, lack of independent due diligence, incomplete tariff and comparative analyses, no quantified emissions or policy alignment evidence, and no clear roadmap for programme execution and decommissioning. Accordingly, and in order to protect consumers and ensure prudent investment, the application is denied.
- 2) Key concerns surrounded the need for written assurance of efficiency and operational reliability over the proposed extension period; and clear risk allocation, so that if units fail early, CUC must absorb the cost, not pass it through to consumers. Specifically the board was concerned with:
  - **Consumer Impact** Lack of demonstrated cost effects and comparative analysis of lower-cost alternatives.
  - **Technical Uncertainty** Absence of unit-specific condition reports, OEM attestations, or warranties to substantiate the proposed life extension.
  - **Economic Robustness** No supporting models or sensitivity testing of the NPV/LCOE analyses provided.
  - **Policy Alignment** Insufficient evidence that the proposal is consistent with Cayman's national energy and sustainability objectives.
  - **System Reliability** Lack of system studies, execution plans and assurances as to reliability of units post upgrade to demonstrate reserve margin compliance during the works and for life of extension.
  - **Programme Delivery and Decommissioning** No clear roadmap with milestones, risk analysis, or end-of-life decommissioning plan.
  - Undertaking of to Absorb Risk No acceptance by CUC to absorb cost of upgraded units that fail.

## **B.** Legal Framework

# 3) Section 7(1) of the Utility Regulation and Competition Act (2024 Revision)

Section 7(1) of the URC Act requires the Office, before issuing an administrative determination of public significance, to allow persons with sufficient interest or who are likely to be affected a reasonable opportunity to comment on the draft determination.

## 4) Electricity Sector Regulation Act (2019 Revision)

Section 9(2)(e)(ii) provides that without prejudice to subsection (1), the principal functions of the Office shall include granting, modifying, or renewing licences for generation where the Office is satisfied that it is economic to extend the life of a generating unit or units of a generator held under an existing generation licence.

Section 28(1) provides that Without prejudice to subsections (2) or (3), a licence may be modified where the Office and the licensee each consent in writing to modify the licence, subject to any special conditions concerning modification in the relevant licence.

#### 5) **CUC Generation Licence**

Condition 7.3 (Term of Licence) – If the Licensee believes it is economic to extend the lifetime of an existing Generating unit beyond the initially estimated economic life of the unit, it may develop a business case justifying the service life extension and apply for such extension before the Generating unit would have been retired, which extension shall be taken into account in any subsequent Generation Solicitation Process. Any such application shall be subject to the Authority's approval, and if the Authority's approval is given and the period of the extended life of the unit would exceed the remaining term of the existing Licence, this Licence shall be cancelled, and a new Generation Licence will be issued for the period of the unit lifetime extension. Save for the inclusion of the unit lifetime extension, the terms and conditions of any new Generation Licence issued pursuant to this Condition shall not be materially different from the terms and conditions of this Licence.

**Condition 7.3 (Term of Licence)** – Save for (a) the change in the term and the addition of new generating unit(s), and (b) any adjustments to the estimated economic life of the generating units covered by this licence as approved by the Authority, and subject to Condition 11, the terms and conditions of any new

generation licence issued pursuant to this condition shall not be materially different from the terms and conditions of this licence during the period equal in length to the term of this initial licence.

**Condition 11.1 (Modification of the Licence)** – Without prejudice to Conditions 11.2 and 11.3, this licence may be modified where the Authority and the licensee each consent in writing to modify the licence.

## C. Determination (Draft)

- This Draft Determination is issued in accordance with Section 7(1) of the Utility Regulation and Competition Act (2024 Revision) (the "URC Act") and is so done to provide Caribbean Utilities Company, Ltd. ("CUC") with an opportunity to comment on the Office's proposed determination regarding CUC's application dated 7 April 2025 to extend the useful life of Units 1, 2, 3, 4, 19, 25, 41, & 42 with a total capacity of 37.2MW, until 2032.
- The Board of the URCO has reviewed CUC's submission, together with the accompanying business case (the 'Business Case'), in accordance with the Office's statutory functions and the applicable licence framework. While the Board recognises the importance of maintaining adequate and reliable generation capacity for Grand Cayman, the application, as filed, does not contain sufficient supporting information for the Office to conclude that the proposed programme is technically justified, economically prudent, or consistent with national policy objectives.
- 8) Having reviewed the proposals, the Board remains concerned about the reliability of the units in question. This concern is heightened by past incidents with refurbished units, including the 2011 explosion of Unit #1, which underscores the need for careful decision-making generally and in light of the aggregate capacity involved in this proposed project.
- 9) It is noted that this proposal was submitted by CUC more than a year after the original Certificate of Need was issued by CUC, which the Board had already considered and were in the process of delivering a Draft Determination on, further compounded the consideration of this proposal.
- 10) Having reviewed the submission, the Board concludes that the application does not provide sufficient evidence to justify approval. The absence of verifiable technical assurance, confirmation zero-risk to consumers, transparent economic analysis and a reasonable delivery plan leaves material uncertainty as to

consumer protection, reliability, and national objectives. The application is therefore denied.

#### **Reasons for the Determination**

11) The Board acknowledges that CUC provided headline economic metrics (NPV, LCOE), a capital envelope, and narrative justification. However, the evidence presented does not sufficiently demonstrate that the programme is technically feasible, economically prudent, or aligned with national policy. Key findings are set out below:

#### Risk Allocation and Consumer Protection

12) The application does not set out a clear framework for risk allocation in the event of early failure of the refurbished units, such as has happened previously, twice, with such life extension projects, thereby rendering the investment in refurbishment a waste of time and money, the cost of which would be borne by the consumer base. It was also noted by the Board that any such failure would result in CUC having to deploy emergency temporary generation, which could significantly increase the cost of generation, since ALL of the costs of temporary generation (fuel/lube and leasing and installation costs would be passed through to consumers, as that is what is allowed by their T&D Licence. Therefore, without explicit provisions ensuring that CUC, rather than consumers, would bear the cost of under-performance or premature failure, as well as any consequent additional costs associated with deploying emergency temporary generation, there is a real risk that consumers would be required to underwrite investments that do not deliver the promised benefits of the life-extension project. In the absence of such guarantees, the proposal cannot be considered prudent or consistent with the Office's statutory duty to protect consumers from unjustified costs.

#### Technical Feasibility

The application lacks unit-specific inspection reports, OEM attestations, or warranties substantiating the technical feasibility of the proposed life extension. Baseline performance data and post-upgrade targets are provided, but without supporting test protocols which are needed to confirm the efficiency and the operational reliability over the proposed extension period of each unit. Despite certain blanket assurances by CUC that the subject generation plants were fit for rebuilding/refurbishment, the Board is cognizant that there is no way to properly assess whether any particular generating plant is fit for such refurbishment without a tear down and a physical, detailed evaluation of the same. The Board's concern

in this regard is that every component of a generation plant will have a definitive lifespan, and unless there is a detailed internal inspection of all of the parts that are intended to be retained in the rebuild, CUC cannot actually provide a definitive breakdown of the parts which will need to be replaced. Furthermore, it is the Board's finding that if the rebuilding process will involve almost every component of an older engine, there would need to be a proper analysis and demonstration as to whether any of the rebuilds would be economically or technically feasible.

## Independent Due Diligence

14) Given the scale of the proposed expenditure and potential tariff implications, it is the Board's position that an independent engineering and economic review would be necessary to validate technical feasibility, cost reasonableness, and system impacts. However, CUC did not submit or offer to provide a third-party assessment along with its application.

#### Economic Analysis and Consumer Impact

- 15) While the Business Case presents NPV and LCOE figures at a high level, it does not provide the underlying model, assumptions and scenario/sensitivity analyses necessary for independent validation. In particular, there is no demonstration of how consumer costs would be affected under different cost-recovery pathways, nor a comparative appraisal against credible alternatives (e.g., partial replacement with modern units, or demand-side measures). This is particularly important where a project such as the one at hand might result in the forgoing of savings of costs to consumers by deploying new, more efficient generation. In this regard, the Board is particularly concerned that absent any detailed, verifiable data as to the fuel efficiency of the refurbished units, as compared to the fuel efficiency of new, modern fuel-efficient generation, this project may in fact result in increased fuel costs over the life span of the extension, ALL of which costs would be borne by the consumer base, given that fuel costs are a direct pass-through. In that vein, the concern is that whilst the proposed life extension may appear to be feasible to CUC, were a proper evaluation of the overall costs to be made, taken into account the fuel costs saving that could be derived from newer, more efficient units, the project is likely to cost more overall, with the consumer base carrying most of those costs.
- 16) In any event, regulatory prudency requires visibility into the drivers of cost and benefit to consumers across plausible futures, not only a single-case point estimate.

#### Environmental Impact

17) The Business Case contains no quantified emissions analysis of the units (e.g. NOx, SOx, PM and CO<sub>2</sub>) pre- and post-upgrade, making it difficult to assess environmental impact. Without quantified evidence, the proposal risks extending high-emission operations contrary to sustainability objectives.

## System Reliability

18) While the application references the need to sustain capacity margins and how it proposes to maintain close to the margin requirements, it does not include a system study demonstrating compliance with reserve margin criteria the dispatch role of the upgraded units post upgrade, or how reliability indices will be affected during the works. A detailed execution plan showing how capacity and ancillary services will be maintained while units are removed from service for upgrades, including outage scheduling, temporary capacity measures, and contingency plans is missing.

## Programme and Decommissioning Roadmap

19) The application lacks a sequenced roadmap covering procurement, construction, recommissioning, and ultimate decommissioning of the upgraded units at end of extended life. Best practice requires a critical path schedule, identification of key risks (supply chain, vendor delivery, permits), vendor warranties and performance guarantees, acceptance testing milestones, and defined decision gates. A decommissioning plan is necessary to manage environmental and financial obligations when upgraded units reach final retirement.

# **Summary and Conclusion**

- 20) The Board recognises that life-cycle upgrades have been approved in the past. However, those cases were narrower in scope and presented a lower aggregate risk to consumers and system reliability. This application is materially different: it involves a large number of units, totalling 37.2 MW of capacity, representing a significant portion of the island's supply. The potential consequences of failure or under-performance are therefore much greater.
- 21) It is also important to note that increased regulatory prudence is required in order for the Office to comply with its mandate to protect consumers. While earlier

applications may not have included the level of detailed supporting evidence now required, the Board is mindful that older refurbished generating units may fail and in this case the impact of failures may critically impact the reliability and generating capacity. Today, the Office cannot responsibly approve major projects without transparent evidence of technical feasibility, economic prudency and consumer benefit.

- 22) In addition, the Office is presently awaiting submission of a proper CON, which is intended to provide a comprehensive assessment of generation capacity requirements. Approving an upgrade of this magnitude before the CON is evaluated would be premature and could prejudice broader system planning.
- 23) At the heart of the Board's concern is consumer protection. Without clear evidence of tariff impacts, robust risk allocation (ensuring CUC, not consumers, bears the cost of early failure), or comparative analysis of lower-cost alternatives, there is a substantial risk that consumers would underwrite costs without assurance of durable benefits. Equally, without unit-specific inspections, OEM attestations, and/or independent review, there is no certainty that the programme would achieve its stated outcomes.
- 24) For these reasons, the Board concludes that the application cannot be approved. This determination reflects not inconsistency, but the application of evolved and strengthened regulatory principles to a proposal of materially greater scale and risk. The Office remains committed to supporting prudent investment that ensures reliability, efficiency, and alignment with national objectives, but cannot do so at the expense of consumer protection or without verifiable evidence.

# D. How to Respond to this Consultation

- This consultation is conducted in accordance with the Consultation Procedure Guidelines determined by the Office and published on the Office's website. Given the extensive prior engagement with and consultation of CUC on this subject, and the urgency of the matter, the Office considers a consultation period of fourteen (14) days to be fair and appropriate.
- All submissions should be made in writing and received by the Office no later than 5:00 p.m. on **5 September 2025**.
- 27) Submissions may be filed as follows:
  - **By e-mail:** electricity@ofreg.ky

### By post:

Utility Regulation and Competition Office P.O. Box 10189
Grand Cayman KY1-1002
CAYMAN ISLANDS

#### By courier:

Utility Regulation and Competition Office 3rd Floor, Monaco Towers II 11 Dr. Roy's Drive Grand Cayman, CAYMAN ISLANDS

If a respondent chooses to file any information in confidence with the Office, they must also provide a redacted version for the public record, together with reasons for each confidentiality claim, in accordance with section 107 of the URC Act. Applications for an extension of time to file comments must be submitted at least four (4) days before the deadline, must include full justification, and must be copied to all other respondents (if applicable).

This is the Final Administrative Determination as issued by the Office and confirmed by:

Mr. J Samuel Jackson Chairman of the Board of Directors Utility Regulation and Competition Office

Date: 22 August 2025