



URCA Audit of the Performance and Organizational Maturity of Bahamas Power and Light (Efficiency Audit)

Statement of Results and Next Steps

ES 05/2024

Issue Date: 30 July 2024

Contents

1. INTRODUCTION	6
1.1 Background.....	7
1.2 Legal Framework	8
1.3 Structure and Remainder of this Document.	10
2. Audit Methodology and Approach.....	11
3. Comments from BPL and URCA and responses by Castalia on the audit exercise.....	13
3.1 Consultant response to BPL’s comments on the Efficiency Audit.....	13
3.1.1 Additional comments from BPL and Castalia Responses	18
3.2 Consultant response to URCA’s comments on the Draft Efficiency Audit	19
4. Audit results, assessment, and recommendations	25
4.1 Regulatory Framework	25
4.2 Audit findings of BPL’s performance and maturity	31
4.2.1 Technical operations	31
4.2.2 Commercial operations	33
4.2.3 Financial performance and management	34
4.2.4 Organization and strategy	35
4.2.5 Human resources (HR).....	36
5. URCA’s Decisions and Next Steps.....	37

Acronyms and abbreviations

ADO	Automatic Diesel Oil
AGC	Automated Generation Control
AMI	Advanced Metering Infrastructure
BEC	Bahamas Electricity Corporation
BPL	Bahamas Power and Light
BUC	Bahamas Utilities Company
CAIDI	Customer Average Interruption Duration Index
CIS	Customer Information System
CM	Change Management
CPP	Consumer Protection Plan
CT/PT	Current Transformer/ Potential Transformer
DRE	Distributed Renewable Energy
DSCR	Debt Service Coverage Ratio
DTx	Distribution Transformers
EBIT	Earnings before Interest and Tax
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization
GBPC	Grand Bahama Power Company
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIS	Geographic Information System
GWh	Gigawatt-hour
HFO	Heavy Fuel Oil

HR	Human Resource
HRIS	Human Resources Information Systems
HSE	Health, Safety and Environment
IDB	Inter-American Development Bank
IFRS	International Financial Reporting Standards
IPP	Independent Power Producer
IRENA	International Renewable Energy Agency
IRRP	Integrated Resource and Resilience Plan
JPS	Jamaica Public Service Company Ltd
KPIs	Key Performance Indicators
kWh	Kilowatt-hour
LMS	Learning Management System
LNG	Liquified Natural Gas
MW	Megawatt
OEM	Original Equipment Manufacturer
OPEX	Operation Expenditures
PESL	Public Electricity Supplier License
PEU	Project Execution Unit
PM	Performance Management
PV	Photovoltaic
RE	Renewable Energy
REP	Renewable Energy Plan
RESG	Renewable Energy Self Generation

ROA

Return on Asset

ROE

Return on Equity

1. INTRODUCTION

In this document, the Utilities Regulation and Competition Authority (“URCA”) issues its Statement of Results and Next Step with respect to the Performance and Maturity Audit (Efficiency Audit) of Bahamas Power and Light Company Limited (BPL).

URCA engaged the services of a group of Consultants, Castalia Advisors and LCI Inc., to carry out a performance and organizational maturity audit of BPL (the Audit). The objective of the Audit was to establish baseline performance indicators and develop a regulatory roadmap for URCA to monitor BPL’s performance.

The broad tasks included the following (to):

- Carry out a full and comprehensive assessment of BPL’s performance and the maturity of its organization, systems, and processes.
- Develop an Excel-based tool to collect and process BPL’s technical, operational, and financial data for the performance audit. The tool will also allow URCA to calculate and track indicators, monitor BPL’s performance and, as necessary, carry out its own audits of BPL’s performance in the future. URCA will also be able to use this approach for assessing the performance of other companies with Public Electricity Supplier Licences.
- Assess the factors in BPL’s external environment that may be affecting its ability to perform well.
- Recommend actions that BPL, URCA, and the Government could take to improve the performance of BPL and the electricity sector in The Bahamas.

The Audit exercise and the draft final and Final reports was completed over a period spanning six (6) months. The Audit commenced on 29 September 2023 with a kick-off meeting between URCA’s team and the Consultants. The Final Report was concluded and submitted to URCA on 24 March 2024.

Castalia and LCI conducted an audit of BPL's performance and maturity using various tools and approaches. These included reviewing data and documents related to BPL and its sector, utilizing an Excel-based diagnostic tool for scoring performance and maturity, administering self-assessment surveys, conducting legal and regulatory reviews, analysing trends in key performance indicators, benchmarking against similar utilities, and conducting interviews and focus groups with BPL management and staff.

The audit findings report covers the methodology used despite limited data availability, analyses external factors affecting BPL's performance, assesses the impact of the regulatory framework, evaluates BPL's performance and maturity across five functions, and provides recommendations for URCA to encourage BPL's improvement while ensuring sector sustainability.

1.1 Background

URCA is the independent regulator and competition authority for the Electronic Communications Sector (ECS), the Electricity Sector (ES) and the Natural Gas Sector (NGS) in the Commonwealth of The Bahamas.

Additionally, one of the key functions and powers of URCA, among others, is to review and determine that the rates and scale of charges comprising the tariff rate for electricity supply services proposed by a public electricity supplier (PES) are reasonable, reflect efficiently incurred costs and are not inconsistent with, or in contravention of, the Electricity Act and allow an opportunity for public input.

The Electricity Sector is comprised of several vertically integrated companies. Bahamas Power and Light Limited (BPL) accounts for 83% or 535 MW of the total generating capacity (643 MW) on the national grid. The remaining 17% of the generating capacity is provided by one other PESL power producer and three Authorised Public Electricity Supplier Licence (APESL) power producers.

BPL is a subsidiary of the Bahamas Electricity Corporation (BEC). BPL provides power to more than 100,000 customers in New Providence and the Family Islands. BPL operates generation, transmission, and distribution systems throughout The Commonwealth of The Bahamas, an archipelagic nation. For more than 50 years, BPL has been committed to providing customers with safe, reliable electricity in a most cost-efficient manner. BPL serves approximately 85% of all electricity consumers in the nation.

On 1 May 2018, Bahamas Power and Light Company Limited (BPL) was issued a new licence, the Electricity Licence, 2016 (the Licence)

In response to the foregoing and as a consequential application of its general regulatory mandate, URCA has taken the decision to perform an Audit of the performance and organizational maturity of the BPL. This is to establish baseline performance indicators to guide URCA oversight on how to assess its regulatory impact on price control mechanisms and tariffs, accounts separation guidelines and other regulatory matters.

A performance and organisational maturity audit of BPL is best viewed as a diagnostic examination of the status quo of the organisation. The audit therefore sought to independently evaluate the company's performance status and to establish a baseline for its performance going forward. A baseline study of the Company's performance will allow URCA to have effective regulatory oversight of BPL that will be efficient and proportionate¹ to their purpose and without imposing unnecessary regulatory burden. This will include assessing BPL's performance using financial, operational, and quality of service indicators and comparing BPL's performance with similar utilities in the Caribbean and around the world.

¹ In accordance with section 7(c) of the Electricity Act, 2024

1.2 Legal Framework

The URCA Act

The Utilities Regulation and Competition Authority Act, 2009 (the URCA Act) as amended, is the umbrella legislation which establishes URCA and sets out its functions and responsibilities in respect of the sectors it regulates.

Section 4.2 of the URCA Act sets out that URCA has the power to conduct market investigations and market review. Specifically, the URCA Act outlines that:

“In performance of its functions URCA shall have the power to issue all regulatory and other measures including - inter alia; -

(g) Issue technical rules and standards”

(l) to conduct market investigations and market reviews and publish information and records”

In addition to the provisions of the URCA Act, there are sector specific legislation and instruments such as the Electricity Act, 2024 and licences such as the PESL, granted to BPL, which contain specific provisions, consistent with the principles elaborated in the URCA Act, as to URCA’s functions in the sector and/or its relationship to the service provider.

The Electricity Act

The Electricity Act, 2015 was passed by the Government of the Bahamas on 30 December 2015 and Amended in 2018 with the promulgation of the Electricity (Amendment) Act, 2018. The EA has conferred powers on URCA to regulate the electricity sector in The Bahamas. The primary role of URCA is the regulation of the electricity sector in accordance with the goals, objectives and principles underpinning the national energy and electricity sector policies.

Since the commencement of the Audit, the Electricity Act, 2015 as amended has been repealed and replaced by the Electricity Act, 2024 (the EA). The EA continues URCA as the independent regulator of the ES and URCA and does not derogate from the powers issued under the repealed legislation which ground URCA’s conduct of the Audit.

On 1 June 2024 The Bahamas passed a Bill for an Act to modernize and consolidate the law relating to the supply of electricity and to repeal the Electricity Act, Chapter 194 and for connected matters. The new modernized Act is now called Electricity Act, 2024. The Electricity Act, 2024 (‘the EA’) was updated to clarify the roles and responsibilities of the main actors in the sector, including the government, the regulator, the utilities, the System Operator and the independent power producers.

Section 6 of the EA sets out the electricity sector policy objectives, as follows:

(1) The main goal and objective of the electricity sector policy shall be the creation of a regime for the supply of safe, least cost, reliable and environmentally sustainable electricity throughout The Bahamas.

(2) *The principles and objectives governing the sector policy and electricity supply regime, in accordance with the aims and goals of the national energy policy, shall be the –*

(a) provision of safe, least cost electricity supplies to all consumers.

(c) Enhancement of the energy security of The Bahamas.

(e) Introduction of a structure for the sector that is overseen by an independent regulator.

(f) employment of practices and technology that are designed to protect the natural environment of The Bahamas;

(g) promotion of energy efficiency in the generation, distribution, and consumption of electricity throughout the economy;

(h) promotion of the use of renewable energy;

(i) promotion of private investment and innovation in the electricity sector;

(j) creation of incentives for the private sector participants in the electricity sector to continuously improve performance in operations and customer service;

(k) provision of investment and job opportunities for citizens of The Bahamas;

(l) provision of a regulatory structure that balances the interests of and affords opportunities for input from all stakeholders, honours contractual commitments and encourages investment.

Section 7 provides for URCA to issue regulatory processes that are fair, objective, non-discriminatory, transparent, and that seek to implement the NEP, and the ESP.

The Licence Conditions

BPL is the holder of a Public Electricity Supplier Licence (PESL). The licence conditions of BPL's PESL mandates that BPL provide information requested by URCA and further that BPL is subject to audit by URCA and in this regard is mandated by their licence conditions to cooperate with audits and inspections.

Specifically, as part of its reporting obligations under Condition 24.4, *inter alia*, BPL shall furnish to URCA without undue delay such information, documents and details related to the Licensed Business that have or is likely to have a significant impact on its functions assigned to it by or under the PESL and the EA.

Additionally, condition 30 of BPL's licence states that URCA may require:

(a) an inspection and/or audit of any aspect of the business of the Licensee and the Licensee shall assist or shall procure assistance to URCA as it may reasonably require.

(b) the Licensee or any of its Subsidiary Undertakings to provide URCA with such information, documents, accounts, returns, estimates, reports or other information required by URCA in the manner and at the times specified by URCA. URCA may use this information for, but not limited to, purposes of compiling statistics and publishing

periodical reviews of the Electricity Sector, and as required or permitted by the Act or other laws or legal process;

- (c) the Licensee to notify URCA of the details of all Subsidiary Undertakings providing a Licensed Business under this License; and
- (d) the Licensee to permit a person authorized by URCA to carry out such inspection and/or audit;

The foregoing grounds URCA's legal authority in relation to the Audit conducted. Additionally, in delivering on its mandate, URCA always operates in a manner which is characterized by fairness, timeliness, efficiency, transparency, attention to detail and independence. It adopts regulatory interventions that are the least intrusive but designed to ensure a balance in the relationships among all stakeholders. As part of its modus operandi, it consults widely and assesses the impact of its proposed action on all stakeholders before issuing regulatory determinations.

All of this is underpinned by a philosophy that the regulator has a duty to operate in the public interest.

1.3 Structure and Remainder of this Document.

The remainder of this document is structured as follows:

Section 2 sets out the audit methodology and approach.

Section 3 sets out the comments and responses received from BPL during audit exercise.

Section 4 outlines the audit results, assessment, and recommendations

Section 5 sets out URCA's next steps having considered the recommendations and comments received from the audit process.

2. Audit Methodology and Approach

This section describes the methodology and approach to conducting the analysis presented in the Audit Report presented by the Consultants.

The audit was designed to assess the five critical functions of a power utility’s sound management and performance. Each function is broken down into areas, which are assessed individually. Table 2.1 summarizes the areas and how it is categorized as part of the audit.

Table 2.1: Categorization of utility functions and areas as covered in the audit

Function	Areas covered within the function
Technical operations	Generation Transmission and distribution (T&D)
Commercial operations	Metering Billing Collection Customer service
Financial performance and management	Financial ratios Budgeting Cash flow management Accounting and financial reporting Auditing and risk management Financial modelling and forecasting
Organization and strategy	Organizational mandate and culture Strategic and business planning Organizational design and structure
Human resources	Human resource (HR) development Workforce planning Recruitment and selection Training and development Performance management Human capital and wellbeing management strategy Change management

The following audit tools were used to assess BPL’s performance and maturity in the above functions:

Data review: Desk review and analysis of documents, metrics, and publications related to BPL and the sector as a whole, including legislation, regulation, internal and external reporting, and strategy and management documents.

Legal and regulatory review: Review of legislation, regulations, and BPL’s license to assess the degree to which BPL’s plans, activities, and incentive structures are aligned with its legal obligations.

Diagnostic tool: An Excel-based tool that scores BPL’s performance and maturity in each area listed above.

Self-assessment surveys: BPL completed surveys to self-assess maturity across all functions. The responses to these self-assessment surveys reflect the scoring system used for the diagnostic tool.

Trend analysis of indicators: An analysis of the evolution of BPL’s performance on select key performance indicators (KPIs)² over the period 2019 – 2023. This analysis identifies areas where BPL’s performance has changed and can help determine what has driven these changes

Benchmarking: A comparison of BPL’s performance to other utilities operating in comparable environments. This can help to set realistic targets for BPL, given its operating environment and

Interviews and focus groups with BPL management and staff: In-person and virtual meetings with BPL staff across functions and departments to gain an understanding of processes, culture, and an overall impression of the organization’s performance from the staff’s perspective.

² This analysis assesses trends in indicators where data was available.

3. Comments from BPL and URCA and responses by Castalia on the audit exercise

3.1 Consultant response to BPL's comments on the Efficiency Audit

This section summarizes the general comments received from BPL and outlines Castalia's responses. Castalia sought the views from BPL in relation to the draft audit report culminating from the audit process. URCA hereby publishes a summary of the comments and responses to the draft efficiency audit document.

URCA has duly considered all written submissions proffered. However, URCA has not included every consideration in this Statement of Results and Next Steps. The absence of the inclusion by URCA to any comment and response posited by BPL and Castalia does not indicate URCA's agreement in whole or in part with the comment and response, nor does it suggest URCA's lack of consideration or finding that the comment was without merit.

Table 3.1: Comments matrix

No.	BPL Comment	Castalia response
1	Regarding Castalia narrative as it relates to the geographic make up of The Bahamas, BPL pointed out that the information on the geographic make up of The Bahamas varies by source. Generally, the accepted position is 700 islands and cays and about 2,400 exposed reefs.	Castalia acknowledged and reiterated that this is consistent with what is in the report.
2	In reference to Castalia Analysis that the additional delivery charges to the Family Islands also significantly increase the cost of generation, BPL posited that the fuel delivery charge calculation for Family Islands of 5.9 \$/barrel is not correct based on the current delivery cost of 28 cents per gallon. Not sure where this figure was derived from.	Castalia assured BPL that it was corrected in the final audit assessment report

No.	BPL Comment	Castalia response
3	<p>In regard to Castalia’s statement that “BPL does not have any utility-scale renewable energy. A small share of renewable generation comes from the solar hybrid mini-grid on Ragged Island and distributed solar generation systems,” BPL asserted that a fairer statement would be that due to the nature of BPL’s operations across multiple separate islands, the term utility scale must be used in an island-by-island context. Given this, BPL has one utility scale installation on Ragged Island. However, the overall the level of RE penetration is low.</p>	<p>Castalia agreed that this is an important distinction to make and have added text to reflect this.</p>
4	<p>In response to Castalia’s assertion that “Dispatch is not fully based on a merit order because of the take-or-pay charged with Independent Power Producers (IPPs),” BPL posited that it is incorrect and further stated that under normal conditions, BPL would not dispatch Aggreko units before a BUC HFO/ADO unit. The Merit order is generally followed but is subject to plant availability.</p>	<p>Castalia posited that the team had a follow up conversation with BPL to make sure that they understood dispatch and to accurately reflect this in the report. Castalia has stated that they had clarified the findings in the report to reflect the conversation with BPL on 17 February 2024.</p>
5	<p>In reference to Castalia assertion that “According to the timeline set in the Electricity Act, the Renewable Energy Plan is expected to be updated in 2024. BPL did not provide information on plans for updating the Renewable Energy Plan,” BPL has explained that approaches for further RE development were put forward. However, as these all hinged on funding and land availability, which were unavailable, it was not practical to develop these into a formal plan.</p>	<p>Castalia noted and thanked BPL for the clarification.</p>
6	<p>In response to Castalia’s assertion that, “The Project Execution Unit indicated that they are not in a position to release information on the status of the IRRP as of December 2023,” BPL posited that their effort is facing challenges as a key resource at CCREEE is no longer available.</p>	<p>Castalia thanked BPL for the clarification.</p>

No.	BPL Comment	Castalia response
7	In its response to Castalia’s assertion that BPL is considering a 20MWp solar project with battery storage at a cost of US\$180 million,” BPL posited that unless this is a different project from the BHPS project, this project was not to include storage and would come at estimated budget cost of \$60 million.	Castalia thanked BPL and corrected this in the report.
8	In response to Castalia’s assertion that, “The Ragged Island mini grid was funded by the IDB as part of an agreement with the Government to build resilient electricity infrastructure in the wake of hurricane Dorian,” BPL refuted this assertion and posited that the Ragged Island project was funded in part by the GoB (\$2.5 million) with the rest of the funding provided by BPL.	Castalia thanked BPL for the clarification and removed the reference to IDB in the report.
9	In response to Castalia’s statement that, “BPL plans to issue renewable energy IPP tenders in early 2024. BPL has already drafted the tender documents and identified sites close to substations in New Providence. An expected 100MW of solar could be installed if all the sites are viable,” BPL has contended that These efforts are now being driven by parties external to BPL.	Castalia thanked BPL for the clarification.
10	In reference to Castalia’s statement in the draft report that, “Service reliability is relatively poor, with relatively high system losses of 13 percent and low system reliability as measured by the SAIDI, SAIFI, and CAIDI,” BPL has pointed out that it should be noted that this figure includes both technical and non-technical losses.	Castalia thanked BPL and posited that Castalia had clarified that system losses includes both technical and commercial losses throughout the report.

No.	BPL Comment	Castalia response
11	In reference to the results of the maturity assessment for BPL’s transmission and distribution, BPL contended that the score regarding OMS and MWM systems is too generous. A 2 would be better.	Castalia thanked BPL and posited that they have made this change and reflected this in the overall scoring.
12	In response to the audit statement that, “The T&D network is reaching maximum capacity: there is no N-1 redundancy in the summer peak should one substation or critical network component go down,” BPL has contended that this is not entirely true for all operations. BPL posited that this may be true in the Family Islands which are predominantly radial feeds but not true for New Providence T&D networks. There are challenges for a few transmission circuits during the summer peak, but not all of them.	Castalia thanked BPL and noted the response.
13	<p>In response to the Castalia’s audit statement that, “BPL has system losses of 13 percent in New Providence,” BPL had sought to correct its initial information sharing with the Castalia audit team. BPL posited that the 13 percent was predicated upon reported estimates. Recent calculations below show losses for New Providence as being as follows over the last six (6) FYs:</p> <p>2017-18: 8.06%</p> <p>2018-19: 8.09%</p> <p>2019-20: 9.02%</p> <p>2020-21: 9.63%</p> <p>2021-22: 11.74%</p> <p>2022-23: 10.19%</p>	Castalia thanked BL for these corrected figures and had updated the metrics for system losses throughout the report.

No.	BPL Comment	Castalia response
14	As it relates to Force Outage rates BPL asked Castalia to advise if the benchmarking utilities opted to apply IEEE standards for outage indices tracking, which included ignoring outages less than 5 minutes and perhaps storm-related/inclement weather outages. BPL posited that this should be helpful.	Castalia stated that unfortunately, this is not something they can advise on or have information to support.
15	In reference to the statement by Castalia which read as follows, “Similarly, proofing (ensuring that BPL actually receives every payment made to the bank) is more difficult in locations where there is no internet. It is difficult for BPL to get timely information on cash and credit card deposits in the Family Islands.” BPL commented that this statement is incorrect. And further posited that at the end of each day, all cashiers must complete a collection summary report that is online and can be accessed by the Proofing Department to perform their payment verification.	Castalia thanked BPL and made this revision in the final report.
16	In its comment on the statement, “BPL staff reported that BPL does prepare separate capital and operating budgets by program and function annually. However, we could not verify this as BPL did not provide a copy of the latest budget,” BPL has posited that it should be stated that though produced, the approval of the budgets by the Board (and/or others) was still outstanding.	Castalia disclosed that a footnote was added to explain this.
17	BPL has agreed that “BPL has introduced a system to prevent budget overruns, whereby any spending over budget requires explicit approval. BPL did not provide further details on this system.”	Castalia has posited that they have requested this information from BPL but have not received it.

No.	BPL Comment	Castalia response
18	<p>“BPL also does not report on its financial performance transparently. BPL has not submitted to URCA the annual report accompanying the financial statements for FY2021, even though its license requires it. BPL’s financial statements and annual reports are not accessible to the public, as BPL has not published them on its website. This breaches the requirement stated in the Electricity Act for BPL to publish such documents on its website within 4 months of the end of each financial year.”</p> <p>In commenting on the above statement by Castalia, BPL had posited that the reason for BPL not publishing recent annual reports on its website should be provided.</p>	<p>Castalia reiterated that BPL staff have not provided the reason for not publishing annual reports.</p>

3.1.1 Additional comments from BPL and Castalia Responses

Table 3.2: Additional comments

No.	Comment from BPL	Castalia response
		-
1	BPL has posited that Castalia is benchmarking BPL against utilities like Jamaica Public Service (JPS), which has a single land mass and topography that is adequate for wind-generated renewables. BPL further commented that no other utility in the region has 23 power sites. BPL has raised question concerning the validity of the benchmarking and whether it is adequate.	Castalia in its response posited that they recognized this important disclaimer and have made this clear in the report. Given The Bahamas' unique operating environment, finding a similar example or benchmark is almost impossible. In the absence of a complete benchmarking study from CARILEC, the benchmarks are intended to serve as reference points.

3.2 Consultant response to URCA's comments on the Draft Efficiency Audit

This section summarizes the general comments made by URCA and outlines Castalia's responses. Castalia sought the views from URCA in relation to the draft audit report culminating from the audit process. URCA hereby publishes a summary of the comments and responses to the draft Efficiency audit Document.

URCA has duly considered all written submissions proffered. However, URCA has not included every consideration in this Statement of Results and Next Steps. The absence of the inclusion by URCA to any comment and response posited by BPL and Castalia does not indicate URCA's agreement in whole or in part with the comment and response, nor does it suggest URCA's lack of consideration or finding that the comment was without merit.

Table 3.3: Consultant response to URCA’s comments

No.	URCA comment	Castalia response
1	URCA indicated the need for an Executive Summary to highlight the most relevant analysis and recommendations for ease of reference for decision makers. The power point presentations from the workshop could provide some useful pointers.	Castalia responded by adding an executive summary at the beginning of the final report. The executive summary highlights the key findings from the audit (as in workshop presentations) and a summary of the final recommendations for URCA.
2	URCA requested Castalia highlight some concrete and feasible actions and investments that BPL can take to improve BPL’s reliability and resilience. URCA further commented that The draft document and the presentations highlighted the need for upgrading the generation and network assets, implementing smart meter technologies.	Castalia posited that without doing a CAPEX plan based on techno-economic analysis, it is not possible to identify specific projects that are cost-benefit justified. Castalia recommended that BPL, with URCA's support, prepare a 5-year capital investment plan consistent with a least-cost plan. Castalia indicated that this is one of the priority recommendations and will help identify and prioritize the most cost-effective way for BPL to meet its reliability and resilience targets. In addition, Castalia has described various projects and initiatives that BPL is already planning to invest in based on interviews with BPL staff and documents shared.
3	URCA would like to see some more analysis and guidance on the regulatory framework and obligations that BPL must adhere to and what impact it is likely to have on BPL operations and performance.	<p>Castalia posited the following changes were made in the final report:</p> <p>Expanding the analysis in Section 4 of the final audit document to include Table 4.1. This table provides a summary of BPL's essential legal and regulatory obligations, and the extent BPL has complied with each.</p> <p>Castalia posited that if BPL were to comply with all its obligations, its overall performance and maturity would improve, given that obligations were designed to incentivize good performance.</p> <p>Castalia posited that data management is a challenge at BPL. If BPL were to fully comply with its reporting obligations, it would need to develop proper data management skills and processes to be able to report on the required KPIs internally and externally. We would expect this to help BPL not</p>

No.	URCA comment	Castalia response
		<p>only comply with obligations, but also more effectively manage and monitor data on its own performance.</p> <p>Castalia has added Table 6.1³, which includes recommendations for URCA that will help incentivize BPL to comply with its legal and regulatory obligations. The table links each recommendation (or regulatory action) with the expected impact of implementing that action, including the impact on BPL's performance and operations, where possible. For example, reviewing and approving a 5-year capital investment plan may help to secure funds for BPL to help meet its investment needs to replace and refurbish certain assets and help to modernize technologies.</p>
4	<p>Additionally, URCA commented that it would like to see Castalia highlight distinctly how well BPL is complying with the relevant laws, regulations, standards, and other obligations and highlight the areas of non-compliance and risk for URCA.</p>	<p>Castalia thanked URCA for the suggestion and added that further to the response to comment #3 above, they have added Table 4.1⁴, which summarizes BPL's essential legal and regulatory obligations and assesses the extent to which BPL complies with each. The table is intended to serve as a summary of the overall analysis of BPL's compliance with legal and regulatory obligations. Section 4 explains the obligations in more detail and Section 5⁵ assesses how BPL either fully complies, partially complies, and or fails to comply with relevant obligations and standards in each utility function (technical, commercial, financial, organizational, and HR).</p>
5	<p>URCA commented that Perhaps the report could highlight more measures and mechanisms that BPL can implement to ensure and demonstrate its compliance with the regulatory requirements. Outline whether BPL has demonstrated commitment to developing and updating its policies and</p>	<p>Castalia thanked URCA for this suggestion and referred to the response to comment #3 above. Castalia also made the necessary revisions in the final report to address this comment.</p> <p>Castalia posited that they have described in detail the extent to which BPL complies with its obligations. Castalia explained BPL's stated commitment, plans, or policies to improve its compliance with</p>

³ Table 6.1 can be seen in section 6 of the final document: URCA Audit of the Performance and Organizational Maturity of BPL

⁴ Table 4.1 can be seen in section 6 of the final document: URCA Audit of the Performance and Organizational Maturity of BPL

⁵ Section 5 of the final draft document;- URCA Audit of the Performance and Organizational Maturity of BPL

No.	URCA comment	Castalia response
	<p>procedures, conducting regular audit and reviews and reporting and disclosing its performance and activities.</p>	<p>its regulatory and legal obligations. Castalia posited that in some cases, they have indicated that BPL is in partial compliance with a certain obligation because it is in the process of implementing a change.</p> <p>Castalia also posited that in addressing URCA’s comment they have presented recommendations for BPL to implement to help improve performance and compliance through its human capital strategy. Recommendations for BPL to also build on the need to develop its regulatory governance and muscle through strategic actions.</p>
<p>6</p>	<p>URCA commented that the draft audit report and the workshop presentation highlighted some quantitative and qualitative indicators and benchmarks to measure and compare BPL's efficiency performance in generation, transmission, distribution, and consumption. The workshop presentation identifies the main drivers and barriers that influence it. URCA is of the view that the report can also propose more specific and realistic targets and strategies for BPL to improve its efficiency, such as reducing technical losses and improving the system heat rate of generating plants.</p>	<p>Castalia thanked URCA for this comment and discussion on this during the workshop. Castalia posited that they have added a description of BPL's main cost drivers and have made recommendations for BPL’s management to consider aimed at targeting these cost drivers. This will help ensure that decisions have the most impact on overall performance.</p>
<p>7</p>	<p>URCA commented that the report did not seem to provide enough analysis on how the hurricane affected BPL's operations, assets, customers, and finances, and how BPL responded and recovered from the disaster. URCA further commented that the report also did not assess how BPL's disaster risk management and business continuity plans were implemented and evaluated and what lessons learned, and best practices identified. We</p>	<p>Castalia posited that they followed up with BPL on this to receive its Business Continuity Manual, which was reviewed and saved in the shared data room. Castalia has posited that they have added text summarizing the Business Continuity Manual and how it relates to BPL’s disaster risk management in Section 3.2 of the report.</p>

No.	URCA comment	Castalia response
	are of the view that the report should provide more information on this aspect, as they are relevant to the objectives and scope of the audit.	
8	URCA understands the constraints of not identifying enough comparative utilities to providing enough comparison and contrast of BPL's performance and maturity. URCA is of the view that some more analysis and explanation on the comparison and contrast of BPL with other utilities in the region and internationally and how BPL can learn from their experiences and challenges will be useful as this could provide more information.	Castalia posited that the r analysis recognized that it is virtually impossible to benchmark BPL with utilities that operate in the same or even similar contexts. Castalia contended that to the extent possible, they identified utilities that operate in similar environments to BPL in the Caribbean and the Pacific. Castalia explained the limitations to this part of the analysis in the draft report. Given the lack of a comprehensive data set and benchmarking analysis from CARILEC at the regional level, Castalia relied on the publicly available information and data from other assignments for benchmarking. Recognizing the unique context in which BPL operates, Castalia have also included the Pacific islands of Fiji and New Caledonia as they have similar characteristics
9	The report did not provide enough details and guidance on how BPL can implement the recommendations, and what are the expected outcomes, timelines, resources and responsibilities involved. Also, URCA would have liked the report to indicate how the implementation of the recommendations will be monitored and evaluated and what are the indicators and targets to measure the progress and impact. URCA and Castalia had discussion on these issues in the workshop presentations and would like to see these expounded on in the final draft report.	Castalia confirmed that recommendations are added for URCA to implement that are realistic, within its control, and likely to have the greatest impact on BPL's performance and overall sector sustainability. Further, Castalia posited that recommendations for BPL to consider that will help to foster an effective and cooperative relationship between BPL and URCA.

No.	URCA comment	Castalia response
10	URCA commented its view on Castalia presenting the Regulatory Road Map and Options in a summary table as outlined by URCA.	Castalia thanked URCA for this suggestion and the supporting table in Excel. Castalia posited that the recommended regulatory actions and roadmap for URCA are incorporated in the final draft document and a simplified version of this table is also in the Executive Summary. The recommended actions are intended to be carried out in sequence and are listed in the order of relative ease of implementation. Completing the recommended actions in sequence will help URCA gradually build its credibility and reputation while helping BPL improve performance by targeting the largest cost drivers.
11	The tariff guidelines contemplated the use of an efficiency factor. URCA commented that it would be useful for a section to explain how the results of the Efficiency Study can be used in tariff setting.	<p>Castalia thanked URCA for bringing this to their attention and further posited that a reference was added to the report that explains the efficiency factor according to the Tariff-Setting Guidelines.</p> <p>Castalia further explained that for tariff-setting in the future, an efficiency study would need to use forward-looking cost projections to calculate the efficiency factor. The analysis in this report does not go into this level of detail, given the scope of the assignment. A tariff review (as recommended) would be needed to complete the necessary study to do this work.</p>
12	Is it possible to perform a regression analysis (or something similar) to determine the relative importance of the factors to each of the (broad) National Energy Policy goals - safe, reliable, affordable, environmental?	Unfortunately, a regression analysis would require a complete dataset of variables. Given the data constraints, it is not possible to accurately quantify or forecast the impact of certain decisions or factors.

4. Audit results, assessment, and recommendations

This section outlines the findings of the audit as it relates to the:

- Regulatory Framework
- Assessment of BPL's performance and maturity

4.1 Regulatory Framework

This sub-section outlines the extent to which BPL complies with the regulatory framework as it relates to the legal, economic and technical regulation of and its service obligations

Table 4.1 summarizes BPL's essential legal and regulatory obligations and the extent to which it complies with them.

Table 4.1: Overview of BPL’s compliance with its legal and regulatory obligations

Function	Obligation	Reference	Extent of compliance
Tariff setting	Unbundle accounts for generation, T&D, and supply services to assist in setting tariffs	Condition 54 of the Public Electricity Supplier License	Not compliant; BPL does not maintain separated accounts
Power quality and reliability standards	<p>Comply with the Standard for Power Quality and Reliability in Electric Power System issued by URCA:</p> <p>Supply electricity within allowable voltage levels of varying limits (between 120V and 480V, depending on the distribution level) and maintain voltage levels within over or under 6 percent of the nominal supply level</p> <p>Maintain the steady-state supply of electricity at 60 Hertz (cycles/second) and within over or under 2 percent of the nominal supply level</p> <p>Limit the maximum phase imbalance, measured under no load conditions, to over or under 3 percent</p> <p>Make every effort to minimize harmonic deviation</p>	Section 3 of the Standard for Power Quality and Reliability in Electric Power System	Compliant; BPL reports to be compliant with standards
	Upon URCA’s request, submit a plan setting out BPL’s strategy for achieving the service levels in line with international best practice	Condition 40 of the Public Electricity Supplier License	Not compliant; BPL has not submitted the plan that outlines its strategy to meet service standards
Customer quality of service standards	Implement a Consumer Protection Plan, which meets the required standards and procedures of the Electricity Act, approved by URCA, and update the Plan before each tariff review	Condition 28 of the Public Electricity Supplier License	Compliant; BPL’s Consumer Protection Plan was approved by URCA in 2019

Function	Obligation	Reference	Extent of compliance
	Provide adequate, safe, and efficient service that meets the Guaranteed, Overall, and Individual Service Standards set by URCA based on the Consumer Protection Plan	Condition 29 of the Public Electricity Supplier License	Compliant; BPL reports to be compliant with standards
	Present the customer with accessible, accurate, and timely bills with minimally required information	Section 4.1 of the Consumer Protection Regulations	Compliant; Bills feature all the required information, according to the Consumer Protection Regulations
	Process and issue bills within 30 days of the closure of each billing period	Section 4.5 of the Consumer Protection Regulations	Compliant; BPL manages billing within the 30-day limit
	Offer at least one payment method free of administrative charges	Section 4.8 of the Consumer Protection Regulations	Compliant; Customers can pay at BPL offices free of administrative charge
	Announce planned outages 24 hours in advance and unplanned outages as soon as practicable	Schedule 1 of the Consumer Protection Regulations	Compliant; BPL announces outages on its website and on social media
	Enable consumers to report faults and interruptions 24/7 year-round	Section 2.8.1 of the Consumer Protection Regulations	Partially compliant; Customers have the option to email BPL 24/7; however, the call centre is only open during standard working hours
Reporting requirements	Submit to URCA a quarterly report detailing the number of complaints received, the nature of each complaint, the status of each	Section 5.12 of the Consumer Protection Regulations	Not compliant; BPL does not submit quarterly reports to URCA

Function	Obligation	Reference	Extent of compliance
	complaint, and the number of complaints that have been escalated to URCA		
	Submit to URCA a quarterly report on its achievements for each of the Customer Quality of Service standards set in the Consumer Protection Plan	Section 6.4 of the Consumer Protection Regulations	Not compliant; BPL does not submit quarterly reports to URCA
	Submit to URCA annual audited financial statements, certified by external auditors, and the accompanying annual report	Condition 24 of the Public Electricity Supplier License	Partially compliant; BPL has submitted its audited financial statements between 2017 and 2021; however, BPL has not submitted financial statements for 2022 and 2023
	Report to URCA on the performance against any quality-of-service indicators and measurements at URCA's request	Condition 36 of the Public Electricity Supplier License	Not compliant; BPL has not reported on the quality-of-service indicators and measurements at URCA's request. BPL currently lacks the equipment to accurately measure these indicators across all of its service area
	Make financial statements and annual reports accessible to public within 4 months of the end of each financial year	Condition 9 the Public Electricity Supplier License	Not compliant; BPL does not publish its financial statements or annual reports
	Submit to URCA an annually prepared 5-year forecast of projected demand and generation requirements	Condition 24 of the Public Electricity Supplier License	Not compliant; BPL does not submit the relevant forecast

Function	Obligation	Reference	Extent of compliance
	Submit to URCA Annually prepared capital investment plan and updated 5-year capital investment plan	Condition 24 of the Public Electricity Supplier License	Not compliant; To the best of our knowledge, BPL has not submitted a capital investment plan for review
	Submit to URCA a major outage report within 24 hours of any major outage	Condition 24 of the Public Electricity Supplier License	Partially Compliant; BPL submits reports, but they are not always within the required 24 hour window.
	Submit biannual reports to URCA on the number of permits granted and the sizes and aggregate kilowatts of the installed distributed generating resources	Section 54(9) of the Electricity Act, 2024	Not compliant; BPL has not submitted the relevant reports
Other	Develop the power system based on least-cost long-term planning	Condition 45 of the Public Electricity Supplier License	Not compliant; BPL does not have a least-cost generation plan
	Forecast and plan for sufficient power generation	Section 15 of the Electricity Act	Not compliant; BPL does not have a generation plan. However, there is an ongoing IRRP that has been commenced by the GoB on BPLs' behalf.
	Develop a Renewable Energy Plan within 6 months from the date of enactment of the Electricity Act and update every 3 years	Section 51 of the Electricity Act	Partially compliant; BPL has developed the Renewable Energy Plan although with considerable delays. An

Function	Obligation	Reference	Extent of compliance
			updated Renewable Energy Plan is due in 2024 ⁶
	Establish and operate a merit-order dispatch	Condition 46 of the Public Electricity Supplier License	Not compliant; Dispatch in New Providence is not fully based on the merit order.
	Implement modern technological solutions to secure optimal efficiencies in its operations	Condition 14 of the Public Electricity Supplier License	Partially compliant; BPL’s assets in New Providence are relatively modern; however, assets in the Family Islands are aging and in need of replacement or refurbishment.
	Support the Government’s national energy policy, including promoting and facilitating the development and use of renewable electricity generation resources and technologies	Section 9 of the Electricity Act	Not compliant; Renewable energy only accounts for 1 percent of the generation mix, falling short of the 30 percent renewable energy national target by 2030
	Ensure that BPL’s employees are appropriately trained and qualified	Condition 32 of the Public Electricity Supplier License	Partially compliant; BPL provides some ad hoc training and has re-introduced discontinued training programs, but overall training can be improved. Current training programs lack alignment with organizational strategic objectives and skills gaps)

⁶ The Government of the Bahamas. “Electricity Act,” 2015. Section 25.

4.2 Audit findings of BPL's performance and maturity

This section highlights the findings from the audit which will focus URCA's regulatory actions for URCA to incentivize BPL to improve performance and support the overall sustainability of the sector.

4.2.1 Technical operations⁷

The audit found that BPL does not have a least cost generation and system plan in place or a set process to develop and maintain system planning whilst there are opportunities for BPL to reduce its generation costs.

Fuel makes up more than half of BPL's operating expenditure. Fuel costs are mainly high due to Shell's monopoly on fuel provision. Shell has an effective monopoly on fuel supply, maintains a large fuel storage facility in Freeport through its sole licensed distributor (FOCOL), and a Shell licensee is contracted for the onward delivery of ADO to Family Islands.

BPL can also improve its fuel controls to prevent fuel diversion. BPL relies on the shipper's delivery metering for fuel balance and performs independent checks by dipping. BPL is considering installing its own mass flow meters to improve integrity.

The audit also assessed that generation options on some of the Family Islands may also help to reduce costs. Hybrid systems made up of solar, battery storage, and diesel could power entire islands at a lower cost than oil.

BPL can improve generation efficiency in the Family Islands⁸.

Small, old, and relatively inefficient ADO units generate almost all electricity on Family Islands. The average age of generation units in the Family Islands is 23 years, more than double the average age of units in New Providence (10 years). Ensuring generation units remain operational 24/7 has been challenging in the Family Islands due to a lack of skills and capital and the overload of current staff.

According to its license, BPL must, to a reasonable extent, implement modern technological solutions to secure optimal efficiencies in its operations. Although BPL has made efforts to commission new, more efficient units, it does not fully meet these provisions of its license, particularly in the Family Islands.

Dispatch in New Providence is not fully based on a merit order⁹.

⁷ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page iv

⁸ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page vi

⁹ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page vii

BPL's license requires BPL to establish and operate a merit order dispatch to provide the least-cost generation capacity. Currently, dispatch is not fully based on a merit order because of constraints with HFO handling and the take-or-pay charges with independent power producers.

BPL-owned units are cheaper to run but are dispatched after the more expensive rental Aggreko units. The Aggreko units, with an average variable cost of US\$0.21 per kWh, run continuously as baseload. BPL and BUC-owned HFO units are cheaper, with the average variable cost between US\$0.12 and US\$0.15 per kWh.

BPL is considering options to eliminate the HFO fuel handling constraints. System operations is using a new economic dispatch software to minimize the weighted average cost of generation.

BPL does not have any utility-scale renewable energy¹⁰.

BPL is not on track to reach its 30 percent renewable energy target by 2030. BPL staff noted that the target had been determined politically and was not based on techno-economic least-cost generation planning, nor had it considered land availability. According to the Electricity Act, BPL must support the Government's National Energy Policy, including promoting the development and use of renewable generation resources and technologies.

BPL would need an estimated 230MW of solar capacity to meet the renewable energy target. Currently, BPL only has the Ragged Island solar plant (400kW), which constitutes less than 1 percent of total generation. At the sector level, the uptake of renewables has been mostly driven by distributed solar systems, totalling 6MW across 300 systems.

BPL needs to invest to refurbish and replace its aging assets to meet its reliability targets¹¹.

BPL needs to invest an estimated US\$500 million to refurbish and replace its aging generation, transmission, and distribution assets. The network needs investment, as it is reaching maximum capacity: there is no N-1 redundancy in the summer peak should one substation or critical network component go down. Around 10 percent of substations need replacing, and another 10 percent need an upgrade or repair. Further, some base designs are over 20 years old.

Investment in the grid can also help reduce losses. System losses in New Providence have increased more than 25 percent since 2017, now at 10.2 percent.

BPL's maintenance is mostly reactive rather than preventative¹².

¹⁰ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page vii

¹¹ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page vii

¹² Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page viii

The audit found that although BPL schedules planned maintenance for the winter period to ensure adequate reserve margin for the summer peak, maintenance is mostly reactive rather than preventative. BPL often defers planned maintenance due to limited reserve capacity and inventory challenges.

The availability factor in New Providence averages 66 percent, while it is slightly lower (61 percent) across the Family Islands. This is relatively low compared to other utilities. Lower availability factors may indicate more frequent breakdowns and the need for more repairs due to poor maintenance and operation protocols.

BPL has installed automated generation control in New Providence and plans to implement an Enterprise Asset Management system, which will help monitor the condition of all network assets in real-time and direct preventive and corrective maintenance optimally.

BPL’s reliability performance is relatively poor compared to other utilities¹³.

Benchmarking reliability indicators shows that BPL’s customers experience more frequent interruptions compared to other utilities, but interruptions do not last as long. This indicates that BPL responds to outages relatively well but could improve on preventing outages before they occur.

The audit found that since 2021, reliability has improved but remains relatively poor. In 2023, the System Average Interruption Duration Index (SAIDI) was 593 minutes per customer, and the System Average Interruption Frequency Index (SAIFI) was 10.5 interruptions per customer.

BPL will need to improve its performance significantly to reach the reliability targets proposed by URCA. BPL will have to reduce SAIDI and SAIFI in New Providence by almost 60 and 40 percent, respectively.

4.2.2 Commercial operations¹⁴

BPL has an effective metering and billing process.

Meter readings are performed on a set schedule and routinely checked for accuracy. BPL reads meters using an automated drive-by technology on a controlled and regular schedule. BPL routinely checks meters for accuracy and sends readers to investigate anomalies when detected. To verify payments, all cashiers (including in Family Islands) complete an online collection summary report that is sent to the Proofing Department at the end of each day. BPL delivers bills electronically within 2 days of reading on a fixed monthly cycle.

BPL’s Consumer Protection Plan helps ensure BPL complies with legal and regulatory obligations related to billing. BPL presents customers with accessible, accurate, and timely bills with the required information. Further, BPL processes and issues bills within 30 days of the closure of each

¹³ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page viii

¹⁴ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page viii

billing period and offers at least one payment method free of administrative costs (in person at BPL's offices).

Although effective processes are in place, BPL can improve in ensuring timely payment from customers.

The audit reveal that the collection rate has remained relatively consistent, averaging 93 percent in the past 4 years. Collections dropped to 87 percent in 2020 during COVID.

Collection from Government customers is much lower compared to other customer categories. BPL does not enforce disconnection and arrears control process on Government customers, which has led to receivables from Government customers of about US\$89 million.

Compared to benchmarked utilities, BPL's customers take longer to pay. BPL's average collection period is 135 days, an increase of 45 percent (from 74 days) since 2017.

BPL can improve its communication with customers.

The audit found that BPL is good at communicating outages but offers limited ways for customers to communicate issues to BPL. BPL uses various channels (social media, radio, and TV) to announce planned outages 24 hours in advance and unplanned outages as soon as practicable, in compliance with the Consumer Protection Regulations.

According to the Consumer Protection Regulations, BPL must offer a way for consumers to report faults and interruptions 24/7 year-round. Customers can contact the call centre (open 8am-7pm daily) or send an email to communicate issues to BPL. To improve customer service, BPL is establishing a 24/7 Contact Centre to allow customers to interact with BPL via multiple channels, including messaging and social media. This plan is still pending approval from the Bahamas Electrical Utility Managerial Union.

BPL's customer engagement lacks transparency.

BPL currently does not have a formal customer engagement strategy. Further, BPL only shares basic information on its website, such as billing, outages, and applications for connections, but it has no information on performance. BPL is making efforts to improve its customer engagement, such as developing a customer engagement plan. BPL has recruited new staff dedicated to improving customer engagement. BPL is also reforming its social media engagement to be more engaging and promote the organization rather than only reporting outages.

4.2.3 Financial performance and management¹⁵

BPL is in a poor financial position.

BPL has been operating at a loss since 2022. Its net profit margin was -20 percent and -24 percent in FY2022 and FY2023, respectively. Since FY2017, BPL's net profit margin has averaged -2 percent. Other financial KPIs also demonstrate BPL's poor financial standing. For example, in FY2023,

¹⁵ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page x

BPL's EBITDA margin was 7 percent, its current ratio was 120 percent, and its return on assets was -12 percent.

BPL struggles to meet its debt obligations.

The audit highlighted BPL's debt service coverage ratio has been negative for the last 2 years, reaching as low as -8.8 in 2022 and -2.5 in 2023. This has been an ongoing issue for BPL. Since at least FY2017, auditors have noted that "conditions may cast doubt on the company's ability to continue as a going concern" and expressed doubt that "BPL will have sufficient financial resources to meet its financial obligations as and when they come due."

BPL lacks forward-looking and automated financial planning and management processes.

The audit reveals that BPL lacks a multiyear plan for infrastructure upgrades and investments, which makes it difficult to project capital expenses accurately and develop a strategy to optimize asset utilization. The lack of forward-looking planning makes risk management and planning reactive rather than preventative.

BPL's budgeting and planning processes are largely manual. Budgeting is done in Excel using information generated from AS400 software. While the software is functional to support budgeting and accounting, it needs upgrading, and manual data exports may be required to realign data.

BPL has a clear internal audit process, but its external reporting can be improved.

BPL's Board has made recent improvements to prioritize risk management and internal controls. The Internal Audit Unit has a well-defined and clear Internal Audit Charter and Procedures. The team produces and submits monthly internal audits to the Board.

The audit found that although BPL consistently applies International Financial Reporting Standards, it does not complete the externally audited financial statements in a timely manner. According to the Electricity Act, BPL must make financial statements and annual reports accessible to the public within 4 months of the end of each financial year. As of March 2024, the financial statements for FY2022 are still in draft form.

4.2.4 Organization and strategy¹⁶

BPL needs to have a clearly articulated and well-communicated mission and vision.

The audit found that apart from the obvious mandate of "keeping the power on in The Bahamas," BPL staff is unsure of the company's long-term vision and values. Staff believe that BPL's mission and vision should evolve to meet sector developments.

BPL's strategic planning is short-term focused.

According to the audit BPL, is focused on short-term objectives, as a coherent long-term strategy does not seem to exist. BPL does have a 100-day strategy plan (as of November 2023), but it does not include details and specificity.

¹⁶ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page xi

Strategic planning appears to be a senior management activity with minimal staff input. There appears to be limited sharing and feedback of key information across the organization such as operational plans, both from top-down to lower levels and across departments/functions.

Organizational structure is functional, but spans of control and cross-functional collaboration can be improved.

The audit found that BPL's organizational charts are well documented and show a good distribution of layering and control spans amongst departments. Fundamental Human Resources (HR) service areas (such as compensation, payroll and benefits, employee relations, training and development, and recruitment and retention) are incorporated into the HR structure. BPL lacks more advanced integrated technologies and information systems to capture and ensure real-time data availability and collaboration across functions and departments.

4.2.5 Human resources (HR)¹⁷

HR is operational and transactional.

URCA's audit finding reveals that BPL's HR is mostly responsive. It focuses on addressing immediate functional HR needs, filling the gaps (recruitment, performance evaluation), and ensuring basic compliance with laws and industrial agreements. BPL has no approved HR plan, and its HR practices, policies, and processes are outdated, not documented, and not organized in a single repository.

Workforce planning is critical to BPL's performance, which the company does not do well.

The audit found that BPL has no clear strategy to anticipate or plan to replace the loss of skills due to employee attrition in the medium to long term. BPL conducts mostly reactive and short-term analysis and planning of its workforce needs.

The audit also found that BPL risks losing institutional knowledge and technical expertise due to unplanned exits and retirement, as almost 9 percent of staff will become eligible to retire between 2023 and 2027

¹⁷ Source: Castalia Limited, URCA Audit of the performance and Organisational Maturity of BPL (Efficiency Audit), Final Report, page xii

5. URCA’s Decisions and Next Steps

URCA has accepted the recommendations emanating from the Audit. The regulatory actions and road map for URCA are outlined in Table 5.1. However, some of the recommended regulatory actions require more urgent attention and will therefore be prioritized for the next project work-plan year 2025.

Decision/Action	Description
<p>Implement Fuel Charge Regulatory Guidelines, and Reporting Requirements for monitoring and approval</p>	<p>In general, the proposed guidelines and data requirements will serve as a tool for:</p> <ul style="list-style-type: none"> • monthly reporting of fuel charge calculation for URCA’s oversights and tariff approval remit. • monitoring of the components that are attributable to the cost of fuel procurement and use. • assessing PES’ performance against other electric utilities in The Bahamas and overseas; and • provides the framework for PES to report to URCA in respect of its performance.
<p>Agree on and implement new KPI reporting requirements focused on cost drivers and system reliability; enforce reporting requirements</p>	<ul style="list-style-type: none"> • Agree on a reasonable and feasible minimum set of KPIs to be reported quarterly and publicly, considering BPL’s data availability and quality. For example, these could be: <ul style="list-style-type: none"> (a) Percentage of HFO as a percentage of total fuel volume as a short-term controllable measure (b) Overall weighted average cost of generation (BS\$/kWh), broken down by New Providence and Family Islands, at a minimum. (c) Total System losses broken down by New Providence and Family Islands. Technical and commercial losses to be segregated once system modelling is completed. (d) SAIDA and SAIFI to provide the metric to measure and monitor reliability.

Decision/Action	Description
Review and validate BPL's CAPEX plan	<ul style="list-style-type: none"> • Agree, through proactive engagement with BPL, on a process and timeline to update BPL's 5-year CAPEX plan • Validate BPL's investment needs, including investments to diversify generation capacity to lower generation costs and to upgrade and strengthen the T&D network to increase resilience. • Ensure all initiatives are rigorously examined against cost-benefit criteria and the cost data is verified in both domestic and international markets. <p>Ensure the CAPEX plan is made available to the public with due explanation and justification.</p>

Table 5.1: Next step recommended regulatory actions and roadmap for URCA

Action	Description	Implementation	Impact	URCA’s relevant mandate
<p>1. Help customers resolve complaints when not possible to get a resolution from BPL</p>	<ul style="list-style-type: none"> • Develop a standard process for complaint handling, a contact person with BPL, and a system to enforce resolution. • Enforce the already existing standards, which state that BPL must resolve complaints within 30 calendar days • Implement corrective measures if BPL demonstrates that it is not resolving customer complaints in a timely manner and in accordance with standards. • Make information public through a website and press releases 	<p>Customer complaint resolution process is clearly defined and established. URCA has a portal on its website where customers can file a complaint. The website features a brochure with instructions for the complaint resolution process and timeline.¹⁸ URCA needs to publish and regularly update BPL’s and URCA’s performance in resolving complaints on its website and on social media to increase public awareness.</p>	<ul style="list-style-type: none"> • Improves public perception of URCA and builds credibility amongst customers. • Incentivizes BPL to improve customer complaint handling 	<p>Section 14 of the Electricity Act 2024:</p> <p>“(1)(j) ...publish, monitor and enforce standards for the protection of electricity consumers</p> <p>(3) URCA may issue regulatory and other measures, including without limitation -</p> <p>(h) conducting inquiries, investigations and oral hearings including in response to complaints from regulated entities and their customers; ;”</p> <p>Section 16 of the Electricity Act 2024:</p> <p>“URCA may issue regulatory or other measures relating to the protection of consumers, including measures regulating:</p> <p>(a) the standard of service and the quality and safety of electricity supply systems and equipment;</p> <p>(c) the handling of complaints by persons who are consumers in the market for services and ancillary equipment...”</p>

¹⁸ URCA. “Consumer Centre,” 2024. <https://urcabahamas.bs/consumer-centre/>

Action	Description	Implementation	Impact	URCA’s relevant mandate
				<p>Section 5.4.9 of the Consumer Protection Regulations:</p> <p>“In the event that a Service Provider has not resolved a Complaint ...within thirty (30) Calendar Days of receiving the Complaint, the Service Provider shall inform the Consumer that the Consumer may refer the Complaint to URCA.”</p>
<p>2. Enforce customer service standards</p>	<ul style="list-style-type: none"> • Define customer service KPIs • Ensure systems are in place to measure, track, and penalize non-performance • Track and ensure BPL consistently and completely resolves complaints • Ensure BPL publishes and reports on KPIs, and if it does not, URCA publishes KPIs • Establish a contact person with BPL • Implement corrective measures if BPL’s performance does not improve 	<p>Customer service standards are clearly defined and agreed upon between BPL and the public, but URCA needs to ensure BPL complies with the obligations and consistently meets them.</p> <p>Challenge: BPL may need to make an effort to gather, process, and manage the data effectively</p>	<ul style="list-style-type: none"> • Establishes URCA as a credible and effective regulator • Supports the National Energy Policy’s objective of safe and reliable power. • Positions URCA as a champion for customer needs. 	<p>Section 14 of the Electricity Act 2024:</p> <p>“(1) ...URCA shall have the power to... (j) publish, monitor and enforce standards for the protection of electricity consumers;”</p> <p>Section 69 of the Electricity Act 2024:</p> <p>“...a licensee who contravenes a... licence condition... is liable to a regulatory fine or other penalty determined by URCA, not exceeding ten percent of the licensee’s relevant turnover.”</p> <p>Section 4 of the URCA Act:</p> <p>“(1) URCA shall have the power to (g) to issue technical rules and standards...”</p>

Action	Description	Implementation	Impact	URCA's relevant mandate
<p>3. Agree on and implement new KPI reporting requirements focused on cost drivers and system reliability; enforce reporting requirements</p>	<ul style="list-style-type: none"> • Agree on a reasonable and feasible minimum set of KPIs to be reported quarterly and publicly, considering BPL's data availability and quality. For example, these could be: <ul style="list-style-type: none"> (e) Percentage of HFO as a percentage of total fuel volume as a short-term controllable measure (f) Overall weighted average cost of generation (BS\$/kWh), broken down by New Providence and Family Islands, at a minimum. (g) Total System losses broken down by New Providence and Family Islands. Technical and commercial losses to be segregated once system modelling is completed. (h) SAIDA and SAIFI to provide the metric to measure and monitor reliability. • Implement the agreed reporting KPIs and requirements. • Ensure systems are in place to measure, track, and penalize any non- 	<p>URCA has clearly defined reporting requirements and the legal mandate to enforce compliance if needed. BPL already has most of the data available, but it will need to establish quality assurance, data collection, validation, processing, and reporting systems. To help encourage BPL to comply with reporting requirements, the KPIs requested can be simplified so that it is less of a burden for BPL to provide data when asked.</p>	<ul style="list-style-type: none"> • Incentivizes BPL to improve its data handling and information processing. • Increases sector transparency and accountability. • Informs tariff-setting and tariff monitoring. • Balances need for BPL to improve its performance while minimizing reporting workload. • Paves the way for incentive-based regulation once a full cost-of-service study is completed. 	<p>Section 14 of the Electricity Act 2024:</p> <p>“(1) The functions and powers of URCA are to: (k) require public electricity suppliers and other licensees to submit periodic reports, as determined by URCA, on their operations...”</p> <p>Section 16 of the Electricity Act:</p> <p>“A licensee shall - a) monitor its performance against such key performance indicators as may be set out in its licence or in any regulatory measures issued by URCA; and (b) ... publish and provide in the manner required by URCA its performance results against the relevant key performance indicators.”</p> <p>Condition 24.3 of the Public Electricity Supplier License:</p> <p>“The Licensee shall furnish to URCA without undue delay such information, documents and details related to the Licensed Business, as URCA may reasonably require ...”</p>

Action	Description	Implementation	Impact	URCA's relevant mandate
	<p>compliance with reporting requirements.</p> <ul style="list-style-type: none"> • Implement corrective measures if BPL does not comply with reporting requirements. • Make information public through website and press releases 			
<p>4. Review and validate BPL's CAPEX plan</p>	<ul style="list-style-type: none"> • Agree, through proactive engagement with BPL, on a process and timeline to update BPL's 5-year CAPEX plan • Validate BPL's investment needs, including investments to diversify generation capacity to lower generation costs and to upgrade and strengthen the T&D network to increase resilience. • Ensure all initiatives are rigorously examined against cost-benefit criteria and the cost data is verified in both domestic and international markets. 	<p>BPL has a CAPEX plan, but the plan needs to be updated and validated on a cost-benefit basis</p>	<ul style="list-style-type: none"> • Establishes URCA as a credible and effective regulator by initiating the first step towards calculating and setting cost-reflective tariff. • Supports URCA's need to balance the short and long-term interests of the consumers with BPL's financial sustainability. • Supports the National Energy Policy's goal of becoming a world leader in the development and 	<p>Condition 14.1 of the Public Electricity Supplier License:</p> <p>"...the Licensee shall ensure that the development of the Electricity Supply System is implemented based on agreed long-term planning procedures and methodologies and that investments are made ...at the least economic cost while at the same time ensuring that the Licensee earns a reasonable return on its investment."</p> <p>Condition 24.8 of the Public Electricity Supplier License:</p> <p>"The Licensee shall, annually, provide URCA with its capital investment plan and updated five-year capital investment plan."</p>

Action	Description	Implementation	Impact	URCA's relevant mandate
	<ul style="list-style-type: none"> Ensure the CAPEX plan is made available to the public with due explanation and justification 		implementation of sustainable energy ¹⁹	
<p>5. Conduct a fuel audit and review the fuel pass through process with the goal to minimize fuel costs</p>	<ul style="list-style-type: none"> Confirm the integrity of the existing calculation of the fuel pass-through amount by reviewing the methodology for fuel adjustment calculations and assessing compliance. Review fuel losses and their measurement both in New Providence and the Family Islands and ensure systems are in place to minimize fuel diversion Ensure systems are in place to measure, track, and penalize non-performance. Periodically check BPL's compliance with established fuel adjustment calculation methodology 	<p>URCA has the legal power to assess how BPL manages fuel costs but has not done so in the past. The process will require close cooperation and information sharing.</p> <p>Challenge: Reducing fuel costs could require ensuring sector-wide stakeholder support and action, including from the Government</p>	<ul style="list-style-type: none"> Builds customer credibility by helping to reduce tariffs, improving public perception of URCA. Helps meet National Energy Policy's objective of providing Bahamians with affordable energy supplies. 	<p>Section 14 of the Electricity Act 2024:</p> <p>"(1) The functions and powers of URCA are to: (a) review and determine that the rates and scale of charges comprising the tariff rate for electricity supply services are reasonable, reflect efficiently incurred costs..."</p> <p>Section 38 of the Electricity Act 2024:</p> <p>"(5) URCA may modify the tariff rate for electricity supply services by BPL to take account of significant and unforeseen increases or decreases in costs occurring during any 24-month period."</p> <p>Condition 30 of the Public Electricity Supplier License:</p> <p>"URCA may require: (a) an inspection and/or audit of any aspect of the business of the Licensee and the Licensee shall assist</p>

¹⁹ The Government of The Bahamas. "National Energy Policy 2013 – 2033. Goal 3." Page 21. <https://www.bahamas.gov.bs/wps/wcm/connect/c0934c9b-fc0e-4496-90e7-5d273c57553a/energypolicy.pdf?MOD=AJPERES>

Action	Description	Implementation	Impact	URCA’s relevant mandate
	<ul style="list-style-type: none"> • Issue press releases to communicate URCA and BPL’s efforts to reduce tariffs for customers. • Other actions to reduce fuel costs to consider: • Confirm the risk-return of the fuel hedging program is acceptable. <p>Ensure any Government imposition of fuel price caps is either short-term only with minimum impact on BPL’s performance or losses incurred as a result of fuel price caps are subsidized by the Government</p>			<p>or shall procure assistance to URCA as it may reasonably require; (b) ...URCA may use this information for, but not limited to, purposes of compiling statistics and publishing periodical reviews of the Electricity Sector, and as required or permitted by the Act or other laws or legal process; (d) the Licensee to permit a person authorised by URCA to carry out such inspection and/or audit...”</p>
<p>6. Assess options to reduce generation costs in Family Islands</p>	<ul style="list-style-type: none"> • Assess the performance and cost-effectiveness of the generation plants installed in the Family Islands • Assess options to reduce generation costs, for example, by expanding the existing plans, replacing inefficient and old units, and increasing the penetration of solar PV • Deliver practicable solutions and present potential net benefits of the proposed options through public information sharing (i.e., reports) 	<p>URCA has the legal mandate to obtain the information it needs from BPL to conduct an assessment, but BPL may not have all of the required and standardized data readily available. The assessment could be lengthy and costly.</p>	<ul style="list-style-type: none"> • Reduces generation costs. • Improves resilience, particularly in vulnerable, hurricane-prone areas. • Supports the National Energy Policy’s objective of developing sustainable energy and diversifying 	<p>Section 14 of the Electricity Act 2024:</p> <p>“(1) The functions and powers of URCA are to: (d) ensure that the electricity supply system is operated efficiently and in accordance with applicable regulatory and other measures;”</p> <p>Condition 14.4 of the Public Electricity Supplier License:</p>

Action	Description	Implementation	Impact	URCA’s relevant mandate
	<ul style="list-style-type: none"> Issue press releases to communicate URCA and BPL’s efforts to reduce tariffs for customers 		generation re-sources.	<p>“The Licensee shall, to the extent that it is technically feasible and economically reasonable, employ modern and leading-edge technological solutions to secure optimal efficiencies in its operations.”</p>
<p>7. Initiate cost of service study to include return on rate base to begin building a capital reserve beyond any short-term Government capital injection</p>	<ul style="list-style-type: none"> Follow conventional cost of service methodology to confirm any need for tariff increases, provide stronger energy-efficient incentives via a steeper non-fuel tariff that properly reflects cost of service and minimizes cross-subsidies between consumer classes and consumption brackets. Determine the current level of cost recovery. Assess the reasonableness and effectiveness of the current rate structure against the long-term electricity sector objectives. Publish the results on the website in a way that are transparent and easy to understand for regular customers 	<p>BPL has the data needed to conduct the assessment, but URCA will need to lead the way and initiate the process. The study could be costly and will require funding.</p> <p>Challenge: the Government may not have a favourable view of the study if the results are contrary to its interest</p>	<ul style="list-style-type: none"> Informs tariff setting and oversight Supports URCA’s need to balance the short and long-term interests of the consumers with BPL’s financial sustainability. Increases sector transparency and accountability. 	<p>Section 13 of the Electricity Act 2024:</p> <p>“(2) URCA has the power to... (m) provide for and carry out periodic rate reviews.”</p> <p>Condition 53 of the Public Electricity Supplier License:</p> <p>“URCA shall conduct a tariff review for the Licensee in accordance with the procedure set out under section 20 of the [Electricity] Act...The Licensee shall comply with the processes and timelines established by URCA for tariff reviews.”</p> <p>URCA has published a Tariff Review Framework, Guidelines and Procedure For Public Electricity Suppliers that proposed the principles, methodologies, and procedures for rate setting. These guidelines establish the process for resetting tariffs in the future</p>

Action	Description	Implementation	Impact	URCA's relevant mandate
				and establishing an appropriate financial model to be used for tariff resets.