REGULATED INDUSTRIES COMMISSION

Treatment of Pension Costs for Regulatory Decision-Making

February 2021

This document is one of a series of discussion papers exploring a specific aspect of the treatment of pension costs for regulatory decision-making in the electricity sector.

Consultative Document

TABLE OF CONTENTS

<u>List of Tables</u>

1. BACKGROUND

The Regulated Industries Commission (RIC) has a duty to set price limits that allow an efficient utility to properly finance its operations. In this regard, the RIC utilises a "building block" methodology to determine the total revenue requirement that the service provider can collect from customers. This methodology derives the total revenue requirement from the following cost components:

Total Revenue = Forecast Efficient Operating & Maintenance Costs (OPEX)
+ Asset Value (Regulatory Asset Base) x Rate of Return +
Depreciation of Assets.

Pension costs are incurred as part of the overall compensation paid to employees and the treatment of these costs affects the setting of revenues. This is assessed by the principles set out by the RIC Act which provides guidelines to ensure that the utility is able to meet its efficient running costs.

In the first rate determination for the Trinidad and Tobago Electricity Commission (T&TEC), only the "ongoing pension costs[1]", were taken into account when the RIC assessed the efficiently incurred costs of providing the service.

1.1 Purpose of Document

This document seeks to highlight all the issues that arise with pension costs when assessing the efficiently incurred costs of providing regulated services, especially in relation to the defined benefit pension plan currently used by T&TEC. The document also sets out the RIC's approach for the treatment of pension costs for future price reviews.

[1] This refers to the costs of pension benefits earned by the employees in the current period.

1.2 Structure of Document

Section 2 - Introduction

Section 3 - RIC's Principles for Assessing Pension Costs

Section 4 – Assessment of Pension Costs

Section 5 - Information requirements

Section 6 - Conclusion

1.3 Responding to the document

In keeping with the RIC's obligation to consult, stakeholders are invited to comment on this document. Responses should be sent by post, fax or e-mail to:

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All responses will normally be published on the RIC's website unless there are good reasons why they must remain confidential. Any requests for confidentiality must be indicated.

The deadline for submission of comments is March 19, 2021.

2. INTRODUCTION

The RIC regulates tariffs by setting a price control every five years, as set out in the RIC's Act. As part of setting the total revenue requirement, the treatment of pension costs is an important aspect of operating expenditure. There are basically two types of pension plans:

1. Defined Contribution; and
2. Defined Benefit.

A defined contribution plan "is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods"[2]. A Defined Benefit plan "is a post-employment benefit plan other than defined contribution plan"[3]. With a defined benefit plan, however, the employer is obligated to pay an employee the agreed pensionable amount regardless of the pension plan's performance. This may lead to the organization having to support the plan out of its own revenues if a deficit occurs in the plan. A deficit will arise when the total liabilities exceed the total assets of the pension plan. However, uncertainties about current and future levels of liabilities occur, especially for defined benefit schemes, depending on investment returns and longevity assumptions. Indeed, defined benefit and defined contribution plans ultimately face similar inherent risks:

- contribution risk: the risk that the individual (and the employer) does not provide sufficient contributions to the scheme;
- accumulation risk: the risk of asset values underperforming or schemes defaulting;
- annuitisation risk: the risk surrounding the income stream that the pension provides to the beneficiary until their death (and, often, the death of their spouse).

[2] As defined in the International Accounting Standard 19 (Employee Benefits). IAS 19 is the international accounting standard which sets out rules governing the treatment of employee benefits, including pensions, in the financial statements of companies.

[3] As defined in the International Accounting Standard 19 (Employee Benefits).

All permanent employees of T&TEC are members of the Commission's Pension Plan which is a defined benefit plan. The assets of the pension plan which are invested via a separate trust administered by an independent trustee (Republic Bank Limited). The pension plan is funded by contributions from both the employees and T&TEC along with revenue generated from investments.

3. RIC's PRINCIPLES FOR ASSESSING PENSION COSTS

The RIC's powers and duties are provided for in statute, the RIC Act No. 26 of 1998.
The RIC's principal duties are, *inter alia*, to:

- *Ensure, as far as is reasonably practicable, that the service provided by a service provider operating under prudent and efficient management will be on terms that will allow the service provider to earn sufficient return to finance necessary investment; and*
- *Establish the principles and methodologies by which service providers determine rates for services.*

In the performance of its functions, the RIC is required to have regard to the **public interest** and in particular:

- *To ensure maximum efficiency in the use and allocation of resources and to ensure as far as is reasonably practicable, that services are reliable and provided at the lowest possible cost; and*
- *To ensure fair treatment of consumers and of service providers similarly placed.*

Furthermore, in prescribing the procedure for the conduct of reviews, the RIC is also required to have regard to, *inter alia*:

- the funding and ability of the service provider to perform its functions;
- the ability of consumers to pay rates; and
- the least-cost operating expenses which may be incurred;

The RIC has discretion in balancing all of these statutory duties and objectives. However, some matters are likely to be of more importance than others when assessing the efficiently incurred costs of providing regulated services. The RIC must, therefore, ensure that its final decision strikes the right balance between its objectives and duties, by giving due regard to all relevant considerations, including the stakeholder comments. The RIC will also have regard to the general regulatory principles of transparency, accountability and consistency and any other principles that represent the best regulatory practice.

Overall, therefore, the RIC's framework to assess the treatment of pension costs must be consistent with its objectives and duties, in particular the RIC's explicit duty to ensure maximum efficiency in the use and allocation of resources, the general regulatory principles stated above and the regulatory best practice. The comparative analysis of other regulatory approaches **(Appendix I)** shows that no general approach has been adopted across the board.

4. RIC's ASSESSMENT OF PENSION COSTS

For the first regulatory period June 1, 2006 to May 31, 2011, the RIC had approved the following employee costs (**Table 1**). The pension cost was included in the Employee Related Benefits for the period 2006-2011.

Table 1: RIC Allowed Employee Cost, June 2006-May 2011 ($Mn)

	T&TEC Requested	RIC Approved 2006/07-2010/11	2006/07	2007/08	2008/09	2009/10	2010/11
Wages[4]	525.58	522.48	94.55	99.29	104.25	109.46	114.93
Salaries [5]	808.53	670.04	121.26	127.33	133.69	140.37	147.39
Employee Related Benefits	302.07	319.30	57.79	60.68	63.71	66.89	70.23
Total Charged to Revenue	1,636.18	1,511.82	273.61	287.30	301.65	316.72	332.54

[4] Wages consists of payments to daily and fortnightly workers.
[5] Salaries consist of payments to monthly paid workers.

The employee and employer contributions to the T&TEC pension plan for the period 2008 to 2019 is shown in **Table 2**. Annual contributions fluctuated during the period increasing by 84% in 2009 (from 2008), with a final decrease in 2019 (from 2018) of 4%. The large increases were mainly due to retroactive salary payments made to its employees in the period 2009, 2012 and 2016.

Table 2: Employee and Employer Contributions 2008- 2019 ($Mn)

Year	Employee	Employer	Total	Annual Increase/(Decrease)	
				Amount	%
2019	40,830,451	81,660,901	122,491,352	(5,164,795)	(4)
2018	42,552,049	85,104,098	127,656,147	(64,514,720)	(34)
2017	64,056,956	128,113,911	192,170,867	41,422,863	27
2016	50,249,335	100,498,669	150,748,004	47,925,280	47
2015	34,274,241	68,548,482	102,822,723	5,963,214	6
2014	32,286,503	64,573,006	96,859,509	3,686,243	4
2013	31,057,755	62,115,511	93,173,266	(35,766,515)	(28)
2012	42,979,927	85,959,854	128,939,781	58,784,068	84
2011	23,385,238	46,770,475	70,155,713	5,277,258	8
2010	21,626,152	43,252,303	64,878,455	(29,344,191)	(31)
2009	31,407,549	62,815,098	94,222,646	43,113,968	84
2008	17,036,226	34,072,452	51,108,678		-

Source: T&TEC

There are three related issues that arise with respect to Defined Benefit Plans:

- **Ongoing Pension Costs** – these are costs of pension benefits earned by the employees in the current period;

- **Deficit Repair Payments** – these are cash amounts, agreed with the pension scheme Trustees, which T&TEC would pay to reduce a pension fund deficit; and
- **Cost of Capital** – it is argued that the existence of a pension fund deficit may influence the cost of capital to an entity at the time of borrowing money from the market.

These issues become important and relevant to regulators for assessing efficiently incurred costs and the way these are taken into account in regulatory decisions will impact the final tariffs.

4.1 Ongoing Pension Cost

As indicated above, the ongoing pension costs refer to the costs of pension benefits earned by employees for service in the current period. The RIC has an explicit duty to consider all reasonable costs in developing the revenue allowances for the service providers. The ongoing pension costs include all employee and employer contributions made to T&TEC's pension plan and are a legitimate expense, therefore the RIC must include T&TEC's contribution towards the pension plan in the determination of tariffs. However, there are different ways to measure the cost of ongoing pension benefits. Some regulators allow service providers to recover the accounting charge reported in the financial statements, while others allow recovery based on cash payments. Having considered all the factors, the RIC will be guided by the following principles:

a. Ongoing pension cost for employees will be included based on reported costs from T&TEC's regulatory and statutory accounts (accounting charge in the statement of comprehensive income).

b. As with other costs, the RIC will use forecasts, based on assumed/expected salary increases, to estimate the ongoing pension costs in a given year.

The RIC invites comments on its proposal to deal with ongoing pension costs based on reported costs in T&TEC's statutory accounts.

4.2 Deficit Repair Payments

Deficit repair payments are the amounts paid to the Trustee of the Plan to fund any pension plan deficit. A deficit will arise when the total liabilities exceed the total assets of the pension plan. In such circumstances, the obligation is placed on the service provider to fund the shortfall[6]. The challenge faced by regulators is whether the service provider should bear the risks of the pension scheme deficit or customers, through regulated charges. There are a number of factors that can influence a surplus or deficit in a pension plan, including:

- the level of risk involved in the investment portfolio;
- the macro-economic performance and financial factors that may have reduced the earnings of the pension plan;
- contributions made to plan (Employee and Employer) and operating and administrative costs to manage the plan;
- the legislative changes that may have increased the cost of benefits and restricted the type of investments to be adopted by a pension plan;
- changes in life expectancy, therefore extending the duration of benefit payments; and
- the overall management of the plan.

While the trustee of T&TEC's pension plan is Republic Bank, all final investment decisions are made by T&TEC and hence, the management of T&TEC has control over the level of risk involved in the investment portfolio and the overall management of the pension plan. All other factors that might affect the plan are external, and T&TEC's management committee will have to put contingencies in place to deal with such issues. With a defined benefit plan, employers will need to dip into the company's earnings in the event that the returns from the investments devoted to funding the employee's retirement fall short of actuarial forecasts. At the current time[7] T&TEC's plan is in deficit and the RIC will carefully consider how, if at all, this will impact regulated charges.

[6] The converse can also exist whereby a pension scheme has a surplus; this may be used to allow the participating employer a contribution holiday, where until the surplus is used up, the employer need not make its usual contributions to the scheme. This is dependent on the rules of the plan.

[7] Source: T&TEC, February 2021.

The level of risk that is adopted in the pension plan investment portfolio will significantly influence the performance of a defined benefit plan. Risk here refers to investment risk, that is, the likelihood of the investment's actual return being less than the expected return. Companies adopting a low risk portfolio will normally invest in government bonds, guaranteed fixed deposits, treasury bills and stable mutual funds. These types of investments earn a fixed and stable income and projections are almost always accurate. Companies opting to accept a higher level of risk in managing their investment portfolio, with the hope of earning higher returns, tend to invest in equity markets, futures, options and engage in exchange rate speculation. While this could lead to higher returns, there is also the possibility of making losses due to the risky nature of the investments adopted.

T&TEC holds meetings with the pension plan trustee who presents all investment options and associated risks to the management committee of T&TEC. T&TEC's management committee then chooses the most appropriate investment options to meet its objectives. T&TEC's pension plan investment portfolio for 2009 to 2015 is shown in **Table 3** below.

Table 3: T&TEC's Pension Plan Investment Portfolio, 2009-2019

Investments	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Risk Level
Equity Securities	40%	43%	48%	52%	55%	51%	49%	49%	46%	45%	45%	High
Debt Securities	10%	14%	18%	19%	16%	18%	19%	20%	21%	24%	35%	Low
Others[8]	50%	43%	34%	29%	29%	32%	34%	31%	33%	31%	20%	High

Source: T&TEC Audited Financial Statements

It can be seen that over 50% of all investments are made up of Equity Securities and "Others" which are high risk compared to debt securities and mutual funds. Globally, in recessionary years such as 2008, the market value of equity drastically fell. In such

[8] Others consist mainly of cash and cash equivalents and housing scheme mortgage, as well as derivatives.

circumstances, it would seem prudent to adopt a more conservative approach, thereby leading to a more balanced portfolio.

Consequently, the RIC proposes that any loss incurred in the pension plan due to high risk investments (pension deficit payments) should not be passed onto customers when setting regulated charges, as this deficit may be as a result of management's poor decision-making in managing its pension plan assets. The RIC has also considered other factors and reasons for its proposals. These include:

- the fact that regulated charges are not decreased when the pension scheme is in surplus (i.e. when the value of the pension fund assets exceeds the value of the liabilities). To be fair to customers, the beneficiaries of the scheme must bear the risks and rewards of the scheme;
- the treatment of ongoing pension costs for the revenue requirement calculations is quite consistent with the treatment of other costs of providing regulated services. However, the deficit repair payments only arise if the service provider experiences losses should the ongoing pension cost forecasts prove incorrect (e.g. returns are lower than expected);
- the exclusion of deficit repair payments would be quite consistent with the RIC's duties as set out in the Act, especially with respect to the promotion of economy and efficiency;
- the allowance of a pass through of pension deficit repair payments would reduce incentives to minimize costs and remove incentives to take appropriate action to manage the pension liability; and
- the compensation of the risk if borne by the customers would mean that the service provider would be consistently over-recovering costs.

International Experience in the treatment of deficit Repair Payments

Most UK regulators had to deal with defined benefits pension plans and there has been no one consistent approach for the treatment of deficit repair payments. Some have taken a principled stand of not allowing the deficit repair payments to be passed through in tariffs to customers. Others have gone as far as suggesting that all new employees should join Defined Contribution plans so that the issue of deficit repair payments would not arise in the future, while some have allowed partial recovery.

However, even in the case of partial recovery, it is helpful to consider the Competition Commission's (CC), UK, decision[9] with respect to Bristol Water, where the regulator for the water industry in the UK, Ofwat, had originally proposed to allow Bristol Water the recovery of only 50% of deficit repair payments in regulated charges. After analyzing the issue and in light of the principles and objectives which apply in relation to determinations made by Ofwat (for example, duty to finance functions and the promotion of economy and efficiency), the CC:

> "*noted the significant steps Bristol Water had taken to control its pension liabilities, the residual level of control it had and the further steps it might take*".

Balancing these considerations, the CC decided to allow 90% of pension deficit recovery costs for Bristol Water's defined benefits schemes. It is interesting to note that the CC decided that 90% of pension deficit recovery costs should be allowed for the defined benefits schemes that were closed to **new entrants**. The CC also rejected Bristol Water's argument that the duty to finance took priority over the duty to promote economy and efficiency. The CC also emphasized that:

> "*our determination reflects the specific circumstances of Bristol Water and its pension schemes. Accordingly, our view of how its pension should be treated in* ***this review*** *period should not unduly influence Ofwat in future determinations*".

In light of the above discussion, the RIC proposes the following:

- the deficit repair payments will not be allowed when considering T&TEC's regulated charges, as these payments reflect losses over and above the ongoing pension costs;
- as any other cost treatment under the incentive regulation, T&TEC experiences gains or losses where the actual cost differs from the forecast. T&TEC should therefore be subjected to risks and rewards of the forecast being lower or higher than the cost even in the case of ongoing pension costs;

[9] Bristol Water Final Determination, August 2010.

- T&TEC should adopt an investment portfolio that is balanced with respect to risk levels and be prudent in making investment decisions; and
- T&TEC should consider adopting a defined contribution pension scheme for new entrants.

The RIC invites comments on its proposal for the treatment of deficit repair payments and whether these payments should be considered when calculating regulated charges.

4.3 Cost of Capital

Under the building-block methodology used by the RIC to calculate revenue requirements, it is necessary to estimate the return that the service provider should earn on its invested capital. This is determined by multiplying the assumed cost of capital by the Regulatory Asset Base. The cost of capital represents the return a service provider must generate in order to raise capital on the market. A loan taken to support a pension plan in deficit will directly increase the cost of debt and result in a higher cost of capital. With a higher cost of capital, the revenue requirement will also increase, thus increasing tariffs. Currently this may not be relevant to T&TEC as the pension plan is operating with a surplus. However, if the plan goes into deficit, overall risk may rise and therefore cost of capital will be higher and this can increase the cost to customers. The issue therefore is whether the regulator should make adjustments to the cost of capital to reflect the impact of a defined benefit pension scheme.

Since the RIC's proposal is not to allow deficit repair payments in price controls, it would be inconsistent to make any adjustment to the cost of capital. The service provider must bear the risks and rewards of the pension scheme.

The RIC invites comments on whether interest from debt financing to support pension deficit should be included in the cost of capital calculation or whether any upliftment of the cost of capital should be allowed.

5. INFORMATION REQUIRMENTS

In order to have a full understanding of the defined benefit pension scheme, the RIC would require information to determine the appropriate ongoing pension costs and risks associated with the investments. This information should also be provided in instances where there is a shortfall in the pension plan earnings, thus allowing the RIC to understand the full extent of T&TEC's contribution to maintaining the stability of the plan. The information should also indicate whether employees themselves need to contribute more towards meeting the deficit, if any. In this regard, T&TEC will be required to submit the following set of information in the future:

- The formula and factors used in determining the Defined Benefit. The current formula for the defined benefit includes the final salary, number of years in service and Accrued Interest.
- An analysis of pension plan investments, stating par values (face value) and movement in the fair value of investments, showing gains and losses on pension plan assets.
- Analysis of total expenses incurred in pension plan.
- Audited financial statements of the pension plan.
- Annual valuation report on obligations and full valuation report (carried out every three years).
- Projected salary increases and any changes to employee and employer contributions towards the pension plan.
- Detailed information pertaining to employee salaries and wages, separating employee related benefits to clearly show the value of each element e.g. NIS, Pension etc.
- In the event of a short fall in the pension plan, the RIC will expect a clear declaration of T&TEC's additional contribution to the pension plan excluding monthly Employee/Employers contributions. This will allow the RIC to understand the monetary support T&TEC has provided to the pension plan. The RIC will also expect a detailed plan on how T&TEC intends to fund the deficit repair payments.

6. CONCLUSION

This document assessed the treatment of pension costs against the RIC's principles which form part of the duties and functions under its Act and provided guidance as to how the RIC will treat pension costs for T&TEC and how the RIC will apply its decisions at future price control reviews.

The RIC would like to receive comments/submission on its proposals. The submissions it receives in relation to this document will be considered before any decision.

APPENDIX I

Summary of UK Regulators decisions on Pension Costs[3]

REGULATOR	DUTIES	ONGOING SERVICE COSTS	DEFICIT REPAIR PAYMENTS	COST OF CAPITAL
CAA[4] treatment of BAA[5] (Regulator of Airport Authority)	No explicit duty to finance	Allowed: Cash Basis	Previous charge control assumed the pension scheme was in balance	No adjustment made
CAA's treatment of NATS[6] (Regulator of Airport Authority)	Include duty to finance	Allowed: Cash Basis	Pension fund was in surplus at time of current charge control	CAA stated that pass-through arrangement for cash costs should reduce the cost of capital
OFGEM (Regulator of Electricity)	Include duty to finance	Allowed: Cash Basis	Allow all "efficient and economic" deficit repair payments (funding over 15 year period)	No adjustment made – Although considered in latest consultation
OFWAT (Regulator of Water)	Include duty to finance	Allowed: Cash Basis	Allow 50% of deficit repair payments (based on 10 year recovery period)	No adjustment made
ORR (Regulator of Rail)	Include duty to finance	Allowed: Cash Basis	No specific policy – Pension deficit was not substantial at last charge control	No adjustment made
POSTCOMM (Regulator of Post)	Include duty to finance	Allowed: Cash Basis	Allows recovery of deficit over 17 year period	No adjustment made
OFCOM (Regulator of Telecom)	No explicit duty to finance	Allowed: Accounting Basis	No allowance for deficit payments	No adjustment made

[3] OFCOM 2nd consultation on pension review, December 2009.
[4] UK Civil Aviation Authority
[5] British Airport Authority
[6] National Air Traffic Services