Office of Utilities Regulation

Jamaica Public Service Company Limited

Annual Review 2021

Reconsideration Decision

2021 December 28

DOCUMENT TITLE AND APPROVAL PAGE

1. DOCUMENT NUMBER: 2021/ELE/016/RCN.001

2. DOCUMENT TITLE: Reconsideration Decision: Jamaica Public Service Company Limited Annual Review 2021 - Determination Notice

3. PURPOSE OF DOCUMENT:

This document sets out the Office's decisions regarding the Jamaica Public Service Company Limited's request for reconsideration of the Office's determinations in relation to certain matters considered in the 2021 annual rate adjustment for the Rate Review Period 2019 – 2024.

4. ANTECEDENT DOCUMENTS:

2019/ELE/003/RUL.001	Final Criteria – Jamaica Public Service Company Limited: 2019 - 2024 Rate Review Process	2019 March 14
2019/ELE/007/ADM.001	Addendum to Final Criteria – Jamaica Public Service Company Limited: 2019 - 2024 Rate Review Process	2019 April 24
2020/ELE/016/DET.003	Jamaica Public Service Company Limited Rate Review 2019 – 2024: Determination Notice	2020 December 24
2021/ELE/001/ADM.001	Addendum to Jamaica Public Service Company Limited Rate Review 2019 – 2024: Determination Notice	2021 January 29
2021/ELE/010/DET.001	Jamaica Public Service Company Limited Annual Review 2021: Determination Notice	2021 September 01

APPROVAL:

This document is approved by the Office of Utilities Regulation and the decisions herein becomes effective as of 2021 December 28.

On behalf of the Office:

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Ansord E. Hewitt

Director General

2021 December 28

Abstract

On 2021 September 13, the Jamaica Public Service Company Limited (JPS) submitted a request (the Reconsideration Request) for the reconsideration of a number of the Office of Utilities Regulation's (OUR's) decisions, in its *Jamaica Public Service Company Limited Annual Review 2021: Determination Notice*[1] (the 2021 Annual Review Determination Notice). The Reconsideration Request is related to seven (7) distinct issues addressed in the 2021 Annual Review Determination Notice. Specifically, the issues are the annual foreign exchange-net interest surcharge, the Z-Factor adjustment for capital expenditure, the 2020 revenue gap adjustment, the time of use tariff design, the standby rate, the system losses target, and the heat rate target. This document sets out JPS's requests, the arguments provided in support of the requests, and the OUR's response to each. In addition, the OUR has taken the opportunity to respond to JPS's proposal in its 2019 – 2024 Rate Review Application that the independent power producers' (IPP's) non-fuel cost be excluded from the system losses calculation.

Contents

1. Executive Summary

In keeping with the tariff framework set out the Electricity Licence, 2016, the OUR conducted the 2021 Annual Review, which, among other things entailed the true-up JPS's actual performance against 2020 targets. In response to the OUR's 2021 Annual Review Determination Notice, JPS submitted a request for reconsideration of the following issues:

1. *Annual Foreign Exchange-Net Interest Surcharge:* JPS questioned the OUR's inclusion of the net unrealized foreign exchange (FX) gains in the determination of the FX losses incurred by the company in the year 2020, as this resulted in the net FX loss surcharge being understated. Further, JPS argued that the interest income on deposits and bank accounts for 2020 amounting to J$276.9M (US$ 1.94M) should not be included in the OUR's computation of the interest surcharge.
2. *Z-Factor Adjustment for Capital Expenditure*: JPS took the view that the 2020 capital expenditure (Capex) revenue reduction of US$2.285M for underinvestment should return to JPS.
3. *2020 Revenue Gap:* The OUR had awarded JPS a revenue gap adjustment for a 6-month period, July –December. However, the company took the view that it should have been for the entire 12 months of 2020.
4. *TOU Proposal and Implementation*: JPS proposed the OUR's timeline for the roll out of the Time of Use (TOU) rates for residential and small commercial customers be suspended to allow the company to address concerns, among other things, to revenue losses and the tax methodology.
5. *Standby and Distributed Energy Resources (DER) Tariff*: JPS took the position that the OUR should omit the Non-Firm Category from the Standby Rates until the submission of the DER tariff and framework.
6. *System Losses*: JPS argued that the ratio of the non-technical losses that JPS has full control of and the non-technical losses that the company has partial control should be adjusted to reflect the target in its submission.
7. *Heat Rate*: JPS proposed that the Annual Heat Rate Target for JPS's Thermal Plants for the Rate Adjustment Period 2021-2022 be changed from 9,667 kJ/kWh to 9,927 kJ/kWh.

Consistent with good regulatory practice, the Office reconsidered the determinations and concluded that all but one of its decisions made in the 2021 Annual Review should remain unaltered. Specifically, the annual foreign exchange-net interest surcharge determination overstated JPS's revenue requirement. Consequently, JPS's revenue requirement shall be adjusted downward by $326.43M in the 2022 Annual Review to compensate for the over-recovery.

In addition, the OUR having omitted to respond to JPS's proposal in its 2019 – 2024 Rate Review Application that the independent power producers' (IPP's) non-fuel cost be excluded from the system losses calculation the OUR opted to address the issue in the reconsideration exercise. On this matter, the Office has concluded that JPS's proposal for the exclusion of IPP costs from the system losses calculation is not approved.

Further, the revenue correction for the omission of these costs from the system losses true-up calculation in the 2021 Annual Review Determination Notice shall be done at the 2022 Annual Review.

2. Introduction

2.1. Response to JPS's Annual Tariff Adjustment Submission

2.1.1. In response to the Jamaica Public Service Company Limited's (JPS's) Annual Tariff Adjustment Submission for 2021, the Office of Utilities Regulation (OUR) issued the *Jamaica Public Service Company Limited Annual Review 2021: Determination Notice*[2] (2021 Annual Review Determination Notice).

2.1.2. On 2021 September 13, JPS submitted a Request for Reconsideration (Reconsideration Request) for the reconsideration of a number of OUR's decisions set out in the 2021 Annual Review Determination Notice. The Reconsideration Request relates to seven (7) distinct issues addressed in namely, the foreign exchange-net Interest Surcharge, Z-Factor adjustment for capital expenditure, 2020 revenue gap, the time of use tariff design, the stand-by tariff, system losses and the heat rate target.

2.1.3. In keeping with good regulatory practice, the Office reconsidered the determinations and this Reconsideration Decision summarizes JPS's requests, the arguments provided in support of the requests, and outlines the OUR's decision regarding the determinations. In addition, the OUR has taken the opportunity to respond to JPS's proposal in its 2019 – 2024 Rate Review Application that the independent power producers' (IPP's) non-fuel cost be excluded from the system losses calculation.

[2] Document Number: 2021/ELE/010/DET.001 dated 2021 September 1,

3. Annual Foreign Exchange-Net Interest Surcharge

3.1. JPS's Request

3.1.1. In its Reconsideration request, JPS identified the annual Foreign Exchange (FX)-Net Interest surcharge (SFXy-1 – SICy-1) as one of the items to be reconsidered by the OUR. The item is comprised of two components; the FX surcharge (SFXy-1) and the net interest surcharge (SICy-1). With respect to the FX surcharge, JPS posited that unrealized FX gains of J$1,396M be removed from the OUR's calculation.

3.1.2. For the net interest surcharge component, JPS asked that interest income on deposits and bank accounts for 2020 amounting to J$276.9M (US$1.94M) be excluded from the interest surcharge calculation.

3.2. JPS's Justification: Foreign Exchange Surcharge

3.2.1. In making its request for the removal of J$1,396M from the OUR's calculation of the FX surcharge adjustment, JPS indicated that of the amount, J$1,248M was directly related to unrealized FX gains, and so resulted in an understatement of the FX loss surcharge. With the application of the weighted average cost of capital (WACC), this takes the figure to J$1,396M. The company stated that unrealized FX gains/losses were included in the calculation. However, the company argued that they are "mere estimates" and "pose a significant risk to JPS and is contrary to the Licence". In support of its position, JPS quoted paragraph 55 of Schedule 3 of the Electricity Licence, 2016 (the Licence), which states that:

> *"The Licensee shall be entitled to an adjustment to the non-fuel rate, based on the difference between the anticipated foreign exchange result loss/(gain) in the Revenue Cap for the previous year and the actual foreign exchange result incurred in the prior year related to Working Capital and Debt Service driven by JMD to USD foreign exchange results."*

3.2.2. JPS further argued that given "the uncertainty in the exchange rate movements, only realized FX gains and losses should be included to avoid transferring undue risk to JPS and to align with the Licence."

3.3. JPS's Justification: Net Interest Surcharge

3.3.1. In making its case regarding the net interest surcharge, JPS contended that the OUR's calculation was inconsistent with the Licence because of the inclusion of interest income on deposit and bank accounts. Firstly, JPS argued that the calculation should be based on paragraphs 49 and 50 of Schedule 3 of the Licence, and as such, the interest charges from commercial and government customers should be the elements factored into the equation.

3.3.2. Secondly, JPS contended that the OUR's treatment of the interest surcharge calculation is inconsistent with how it has been treated in the past. In support of this stance, JPS pointed to the annual review determinations of 2016, 2017, and 2018, stating that "only interest income charged to government and commercial customers were included" in the OUR's calculation.

3.3.3. Thirdly, JPS argued that the interest income used in the calculation included income on sums that it said did not belong to the company. This included an amount of J$213.8M belonging to the Electricity Disaster Fund (EDF). It also included J$62.7M representing interest income earned on loan amounts deposited in bank accounts to fund capital investments, including the Smart Streetlight Programme, that were not spent during the year. Further, JPS stated that since it was not allowed to recover all its interest expenses from the approved revenue requirement, it was unreasonable to deduct this particular interest income from the 2021 Annual Revenue Target.

3.4. Background

3.4.1. The annual FX-Net Interest surcharge had its origins in the Licence, which came into effect in 2016. Prior to 2016, the Amended and Restated All-Island Electric Licence, 2011 (the 2011 Licence), which was in effect, did not explicitly provide for an annual FX loss/gain surcharge mechanism. However, in advocating the introduction of a FX loss/gain surcharge mechanism, JPS argued that even though its revenues were issued at billing FX rate in any given month, by the time the revenues were collected, in most instances, the FX rate would have depreciated. Consequently, collected revenues when converted to United States (US) dollars would be equivalent to a smaller sum than the original amount billed in US dollar terms. This, JPS argued, presented a problem since both its IPP and fuel bills are denominated in US dollars. Hence, it sought the inclusion of a mechanism by which adjustments could be made in the tariff to deal with FX losses or gains. JPS had also sought to have the foreign exchange losses included even when the accounts were denominated in Jamaican dollars J$. These losses mainly were unrealized FX losses on foreign currency loans.

3.4.2. In renegotiating the licence terms, culminating in the Licence in 2016, the Government of Jamaica (GoJ) acceded to JPS's request for a FX loss/gain adjustment mechanism, but with a caveat. The caveat was that the FX loss/gain would be netted off against the interest paid by customers on outstanding bills. In the reference to the actual net interest expense/(income), AIC_{y-1} , in the annual adjustment formula detailed in Exhibit 1, Schedule 3 of the Licence, this item is defined as *"…interest charged to customers and late payments per paragraph 49 to 52 of Schedule 3..."*

3.4.3. Paragraph 51 of Schedule 3 sets out the applicable interest rate chargeable to GoJ, and paragraph 52 details the right of JPS to charge late payment fees from and pay early incentive fees to residential customers. In this regard, the actual interest to be included in the surcharge calculation should take account of interest charges related to government and commercial/industrial customers, as well as the late payments and incentive fees for residential customers.

3.4.4. The OUR has taken note that JPS, in its Reconsideration request, failed to mention paragraphs 51 and 52 and omitted all references to the residential customer late payment and early incentive fees. It is not clear why this was omitted, however, the Licence is unambiguous regarding the inclusion of the residential component of such transactions in the FX loss/gain calculation.

3.4.5. As defined in the Licence, the annual FX-Net Interest surcharge may be expressed as follows:

Annual Foreign Exchange-Net Interest surcharge = $SFX_{y-1} - SIC_{y-1}$

Where, $SFX_{y-1} = AFX_{y-1} - TFX$ *and* $SIC_{y-1} = AIC_{y-1} - TIC$

And, SFX_{y-1}*= Annual foreign exchange result loss/(gain) surcharge for "y-1".*

This represents the annual true-up adjustment for variations between the foreign exchange result loss/(gain) included in the Base Year revenue requirement and the foreign exchange result loss/(gain) incurred in a subsequent year during the rate review period.

AFX_{y-1} *= Foreign exchange result loss/(gain) incurred in year "y-1"*

TFX = The amount of foreign exchange result loss/(gain) included in the revenue requirement of the Base Year

SIC_{y-1} *= Annual net interest expense/(income) surcharge for "y-1".*

This represents the annual true-up adjustment for variations between the net interest expense/(income) included in the Base Year revenue requirement and the net interest expense/(income) incurred in a subsequent year during the rate review period. The net interest income shall be deducted from the revenue requirement while the net interest expense shall be added to the revenue requirement.

AIC_{y-1} *= Actual net interest expense/(income) in relation to interest charged to customers and late payments … in year "y-1"*

TIC = The amount of net interest expense/(income) in relation to interest charged to customers and late payments included in the revenue requirement of the Base Year.

3.5. OUR's Review

Foreign Exchange Surcharge

3.5.1. For the FX Surcharge (SFX) component of the Revenue True-Up computation, the OUR has in the past and continues to rely on the amount that is reported in JPS's Audited Financial Report, in the line item, ***Foreign exchange (losses) gains, net*** as the source for the Actual Foreign Exchange (AFX) value.

3.5.2. This approach is reasonable and transparent, and is the basis on which the Foreign Exchange targets (TFX) were established.

3.5.3. In the Jamaica Public Service Company Limited Rate Review 2019 - 2024: Determination Notice[3] (2019-2024 Determination Notice), the OUR approved the amount of J$280 million in the 2019-2023 Revenue Requirement as TFX for the periods 2020, 2021, 2022 and 2023.

[3] Document Number: 2020/ELE/016/DET.003 dated 2020 December 24.

Net Interest Surcharge

3.5.4. In the 2019-2024 Determination Notice, the OUR had intended to use items shown in JPS's Audited Financial Accounts[4] to forecast the Target Interest Charge (TIC) component of the net interest surcharge for the 2019 to 2024 tariff period. Based on this formulation, TIC forecast would have been:

TIC = Net Income – (Customer Deposits + Debt Issuance Costs & Expenses)

3.5.5. However, the OUR review of the revenue requirement has confirmed that the TIC which would have translated by this methodology to $115.932M in the 2021 Annual Review was unintentionally not included in the revenue requirement for any of the years in the 2019-2024 Determination Notice. Therefore, this means that the TIC is equal to zero for all the years in the 2019 – 2024 Rate Review.

3.5.6. Applying the same formulation used to derive the omitted TIC, the Actual net interest expense/(income), AIC, was computed for 2020 to be $470.370M.

3.5.7. Admittedly, the approach used in the 2021 Annual Review Determination Notice is different from the approach used by the OUR in previous Annual Reviews. Prior to the 2021 Annual Review, the OUR relied on information supplied directly by JPS. Therefore, the approach used in the 2021 Annual Review was a departure from that practice. However, for the purpose of transparency, the OUR opted at the time of the 2019 -2024 Rate Review to use data in JPS's Audited Financial Report. It was on that basis the TIC formula was constructed and this informed the AIC calculation.

Re-calculation of AIC

3.5.8. JPS, in its Reconsideration Request, indicated that the OUR's AIC calculation was incorrect, as the values used for the net income component of the equation included interest income belonging to the EDF and interest inflows from funds borrowed for capital investment programmes, including the Smart Streetlight project.

3.5.9. In this respect, the OUR concedes that JPS is correct and has decided to recalculate the value of AIC using data requested from JPS which relates to the items of income or expense specifically prescribed in Schedule 3 and Exhibit 1 of the Licence. In defining AIC, the Licence states that it should be comprised of "interest charged to customers and late payments per paragraph 49 to 52 of Schedule 3" meaning:

[4] See JPS 2020 Annual Report, p. 113, note 25

- Late payment interest on Government of Jamaica bills;
- Late payment interest on commercial and industrial customers' bills;
- Late payment and incentive fees on residential bills.

3.5.10. The interest and incentive/payment data above was submitted by JPS and the Interest Surcharge, SIC, for 2020 was recalculated. As shown in Table 2 below, the revised SIC is J$530.30M, which is $175.9M more interest income than the $354.4M calculated in the 2021 Annual Rate Review.

Table 2: Recalculation of the 2020 Annual Interest Surcharge (SIC)

Line		Formula	US$'000	J$'000
L1	Interest Income on GOJ Bills		410	58,564.40
L2	Interest Income on Comm/ Industial Bills		2,980	425,663.20
L3	Payment/Incentive on Residential Bills			162,000.25
L4	**Revised AIC**	**(L1+L2+L3)**		**646,227.85**
L5	TIC			-
L6	**Revised SIC**	**(L4-L5)**		**646,227.85**

Exchange Rate (Based on the 2020 Audited Financials) J$ 142.84

Annual Foreign Exchange Surcharge (SFX – SIC)

3.5.11. Given that SIC has changed due to the recalculation of AIC, even though SFX has remained the same, this has a revenue implication since the former is a setoff against the latter. Table 3 below shows a comparison of the original and revised results of the setoff before and after the application of the WACC. The original calculation inclusive of WACC required an increase in the revenue requirement of $421.57M. This compares with a revised adjustment of $95.14M, which means that in the 2021 Annual Review Determination Notice, JPS was over compensated by $326.43M. Therefore, this amount must be returned to customers in the 2022 Annual Review by a commensurate reduction in revenues.

Table 3: Recalculation of the 2020 SFX-SIC

Line	Item	Formula	Original	Revision	Difference
			J$'000	**J$'000**	**J$'000**
L1	SFX		731,272.51	731,272.51	-
L2	SIC		354,437.2	646,227.85	291,790.69
L3	**SFX - SIC**	**(L1 - L2)**	**376,835.36**	**85,044.66**	**(291,790.69)**
L4	**(SFX - SIC)*(1+WACC)**	**L3*(1+0.1187)**	**421,565.71**	**95,139.46**	**(326,426.25)**

WACC (%) *11.87*

Data Requirement

3.5.12. To ensure transparency in future calculation of the Annual Interest Rate Surcharge, JPS shall be required to provide the OUR with the following breakout of its Annual Financial Statements:

- Late payment interest on Government of Jamaica bills;
- Late payment interest on commercial and industrial customers' bills;
- Early payment incentive;
- Late payment fee.

3.6. Conclusion

3.6.1. **With regard to the use of the foreign exchange losses/gains figure in the company's Annual Financial Statements, the OUR's review of the Annual Foreign Exchange Surcharge and the Annual Interest Surcharge revealed nothing amiss.**

3.6.2. **However, the OUR recognizes that the methodology applied in the calculation of the Annual Interest Surcharge in the 2021 Annual Rate Review Determination Notice is vulnerable to distortions. Therefore, the OUR has taken the view that it will strictly use the components of income and expense delineated in the Licence as the inputs to this calculation. Accordingly, the Annual Interest Surcharge determined in the 2021 Annual Review Determination Notice was recalculated on that basis. Additional, given its omission in the revenue requirement for the Rate Review period, the TIC is equal to zero. The result shows that JPS was overcompensated in the amount of $326.43M. This amount should therefore be recovered in the revenue adjustments to be made in the 2022 Annual Review. Additionally, JPS shall be required to provide a breakout of all the components for the Annual Interest Surcharge calculations in its financial statements, beginning in the 2021 publication.**

RECONSIDERATION DECISION #1

The Office has determined that JPS was overcompensated in the amount of $326.43M in respect of the 2020 Annual Foreign Exchange-Net Interest surcharge. In this regard, JPS revenue requirement shall be adjusted downwards to reflect this sum in the 2022 Annual Review.

4. Z-Factor Adjustment for Capex

4.1. JPS's Request

4.1.1. In the 2021 Annual Review Determination Notice, the OUR determined that JPS's 2021 revenue requirement should be revised downward by US$2.285M to reflect a Z-Factor adjustment associated with capital expenditure (Capex) projects that were delayed or not executed. JPS in its Reconsideration Request, asked that this decision be reversed and the full US$2.285M be allowed in the revenue requirement.

4.2. JPS's Justification

4.2.1. JPS contended that its request was justified on several grounds. First, the company argued that it has not yet collected all of the revenues for the 2020 Capex, but it is required to make a refund to customers. According to JPS, this would "result in a diminished cash flow position… that may further affect the ability of the company to carry out its investment programme."

4.2.2. Second, JPS claimed that the OUR ignored the recovery of the 2019 Revenue Cap and limited the recovery of the 2020 revenue gap to six (6) months. Consequently, the "determination by the OUR to implement a Z Factor True-up due to underspend on 2020 Capex will cause JPS to fall further behind in collecting the revenues necessary to carry out its investment programme". Such a result, JPS posited, is "contrary to the intent of the Licence".

4.2.3. Third, JPS posited that the request is made "because it is in the process of catching up on deferred investments from 2020." Hence, the company would be placed in a more adverse financial position if the Capex Z-factor adjustment were maintained.

4.3. OUR's Review

<u>The Licence & Final Criteria</u>

4.3.1. The regulatory requirements applicable to the Z-Factor adjustment in relation to JPS's capital investment programme are defined in paragraph 46.d (iii) of Schedule 3 of the Licence, and Criterion 13 of the *Final Criteria - Jamaica Public Service Company Limited: 2019-2024 Rate Review Process*[5] ("the Final Criteria"). Paragraph 46.d (iii) of Schedule 3 of the Licence best encapsulates the Z-Factor regulatory action required in the event of capital project delays:

> *"where the Licensee's capital & special program expenditure are delayed and such delay results in a variation of 5% or more of the annual expenditure, the Z-factor adjustment will take into consideration the over–recovery of such expenditures, plus a surcharge at the WACC;"*

4.3.2. The OUR's determination on the Capex Z-Factor reduced the company's 2021 revenue requirement by the amount commensurate with its delayed capital project expenditure. This is in line with the procedure specified in the Licence and elaborated in the Final Criteria.

[5] Document Number:2019/ELE/003/RUL.001 dated 2019 March 14

JPS's request is therefore in direct conflict with the Licence and does not accord with regulatory balance.

4.3.3. Further, JPS's claim that the Capex Z-Factor adjustment should not have been applied, since the company had not yet "collected all of the revenues for the 2020 Capex" is misguided. The principle of investment, which is epitomized in the Z-Factor procedure in the Licence, is that investments must first be made before depreciation and the return on investment follow. To be clear, JPS's forward looking revenue cap assumes that the approved Capex in any given year are made in a timely fashion. Consequently, the 2020 revenue requirement included both depreciation and the approved return for the programmed investments. The logic is simple, if the investments were not made, the associated depreciation and return on investment should be removed from the revenue requirement.

<u>JPS's resultant Adverse Financial Position</u>

4.3.4. JPS's contention that it is being placed in an adverse financial position is irrelevant to the issue of what is fair and prudent in this case, given the provisions of the Licence. The fundamental regulatory principle governing this issue is that approved costs that are embedded in non-fuel rates that were not incurred by JPS should be returned to the "Ratepayers". For the OUR to grant JPS its request of getting revenues of US$2.285M for investments it did not make in 2020, at the customers' expense, would constitute a breach of its regulatory obligation.

4.4. Conclusion

4.4.1. **Having analysed JPS's reconsideration request and the justification for the inclusion of US$2.285M (or J$370.677) for Z-Factor adjustment for Capex projects in the revenue requirement, the Office having considered the requirements of the Licence maintains its decision in the 2021 Annual Review Determination Notice. The Office deems the request to be unreasonable and that it would constitute a violation of the provisions of the Licence. Accordingly, Determination 4 of the 2021 Annual Review Determination Notice remains in effect.**

RECONSIDERATION DECISION #2

Having analysed JPS's reconsideration request and the justification for the inclusion of US$2.285M (or J$370.677) for Z-Factor adjustment for Capex projects in the revenue requirement, the Office has determined that its decision on this matter in the 2021 Annual Review Determination Notice shall remain intact.

5. Revenue Gap

5.1. JPS's Request

5.1.1. In the 2021 Annual Review Determination Notice, the OUR approved the sum of $1.55 billion as compensation to JPS for a gap in its 2020 revenues. This compensation was for the consumption period 2020 July 1 – 2020 December 31. JPS, in its Reconsideration Request contended that the OUR "incorrectly excluded the revenue deficit (gap) suffered by JPS between January and July 2020." Hence, the request is for a revenue gap compensation for all of 2020 (i.e. January – December), instead of the $1.55billion allowed by the OUR for the latter half of 2020.

5.2. JPS's Justification

5.2.1. JPS's justification for the proposed treatment is that the 2020 rates were derived from an approved revenue cap based on the established 2020 (January – December) forecast. Therefore, billing at the lower 2018 rates for all of 2020 would have generated less than the approved 2020 revenues cap.

5.3. OUR's Review

5.3.1. It is useful that the OUR rehearse the context within which it arrived at its determination on this issue. JPS submitted its 2019 – 2024 Rate Review Application on 2019 December 30. The Licence contemplates a four-month period to conduct a tariff review. The OUR published the 2019-2024 Determination Notice on 2020 December 24. Consequently, the approved revenue gap compensation of $1.55 billion, covers roughly six (6) months prior to the publication date of the 2019-2024 Determination Notice.

5.3.2. The usual regulatory practice is for the applicable tariff to be applied going forward as at its effective date, without reference to the period for which the determined revenues would be "lost". Therefore, the OUR's approval of roughly six (6) months prior to the publication date of the Determination Notice is not the norm in rate-making practice, as anything that bears the resemblance of a retroactive tariff, is generally shunned by regulators. However, the OUR on this occasion, whilst seeking to maintain the integrity of the Licence provisions, made an exception on the grounds that:

- "the challenges of the new forward-looking revenue-cap review" coupled "with the arrival of the COVID-19 pandemic", which necessitated a review of several facets of the tariff submission, resulted in a longer than expected processing time for the determination notice;
- given the timing of JPS's rate review application and the gravity of the issues involved, in the best of circumstances, the only date prescribed by the Licence by which the rates could have reasonably have been deemed to be adjusted, would be the Adjustment Date, which for 2020 is July 1.

5.3.3. It is also important to note that, based on the construct of the Licence, the company's rates and revenue cap are generated based on the calendar year data, but the revenues are collected over the 12-month period July to June of the following year. By this configuration, the logic is that an application submitted in 2019 December correctly ought to take effect from 2020 July 1, and remain in effect for 12 months ending June 2021. The decision by the OUR to approve compensation for the revenue gap arising from the non-application of the approved rates from 2020 July to 2021 January is therefore fair, reasonable and logically consistent with the regulatory regime set out in the Licence.

5.3.4. JPS has proffered very little in its attempt to justify its claims for new rates from 2020 January; rather it has simply declared an entitlement to a revenue cap of $42.1B and asserted its "right to recover the efficient cost approved by OUR for 2020, which are the basis for the revenue cap published in the Final Determination." It bears recollecting as well that in the normal course, JPS was required to have submitted an acceptable Rate Review application in 2019 April for rates to take effect in 2019 July. JPS failed to do this as the application it submitted at that point was deemed to be deficient by the OUR. Having failed to submit its application in time to meet the Licence prescribed cycle, and having submitted an application for the OUR's consideration at the end of 2019, it is not reasonable for JPS to expect to receive retroactive tariffs for a period during which it would have been impossible for the OUR to have made a determination on its application.

5.4. Conclusion

5.4.1. **The Office, having reviewed JPS's request for the increase of the revenue gap period in which compensation should be paid, concludes that the company's position is unreasonable in the circumstances, and no additional information was provided that would justify an adjustment to the OUR's initial determination. In this regard, Determination 3 of the 2021 Annual Review Determination Notice, which provides for $1.55 billion for the 2020 revenue gap, remains unchanged.**

RECONSIDERATION DECISION #3

The Office, having reviewed JPS's request for the increase of the revenue gap compensation period from six (6) months to twelve (12) months, has concluded that the company's position is unreasonable in the circumstances. Therefore, the 2021 Annual Review Determination Notice, which provides for $1.55 billion for the 2020 revenue gap, remains unchanged.

6. TOU Proposal and Implementation

6.1. JPS's Request

6.1.1. JPS requested a reconsideration of the OUR's proposed timeline for the roll out of the Time of Use (TOU) rates for residential and small commercial customers to allow the company time to submit an alternative proposal that addresses its concerns. According to JPS, its concern pertains to anticipated revenue leakages and design flaws that, if ignored, will create serious financial, tax and reputational risks for the company.

6.1.2. JPS proposed the following considerations in the TOU design for residential and small commercial customers:

1) The adoption of the existing Short Run Marginal Cost (SRMC)/ fuel cost mechanism as the means of price differentiation between the relative TOU periods;
2) Re-definition of the reference energy price to exclude the lifeline rate for average tariff closer to or equivalent to the standard rate;
3) The introduction of a single facility charge to replace the OUR's tiered customer charge structure;
4) A proposal for an estimated monetary threshold equivalent to the 150 kWh for a STD customer. (On-going discussion with the GoJ); and
5) The development of a Revenue Cap True-Up mechanism to address potential revenue leakages arising from the TOU pilot programme.

6.1.3. Additionally, on 2021 November 16, the company submitted a document entitled ***JPS Response to OUR's Revised Time-Of-Use for Residential and Small Commercial Customers*** which, more or less repeated the same objections made in the company's Reconsideration Request. However, the document went into greater detail on the specific points previously raised in the Reconsideration Request.

6.2. JPS's Justification

6.2.1. JPS acknowledged that the OUR made modifications to the residential and small commercial customer TOU structure, originally determined in the 2019-2024 Determination Notice, to address some of the concerns raised by JPS, including the risk of revenue leakage. However, JPS argued that several design flaws still existed in the modified structure determined by the OUR in the 2021 Annual Review Determination Notice. The concerns raised by JPS are outlined below:

6.2.2. *Revenue Leakage*: According to JPS, the OUR has assumed that the customers who opt for the TOU option and experience an increase in their bill, will continue to remain on that rate option and thereby potentially create a stream of revenues that offsets any loss of revenues. JPS contended that this assumption is faulty as an analysis from the OUR's TOU design model demonstrates that even without a shift in behavior, customers are likely to see a reduction in their electricity bill.

6.2.3. *Cost Reflectivity*: JPS stated that the OUR's use of the LRMC structure "does not reflect JPS' cost structure nor the demand structures for residential or small commercial customers across TOU periods."

6.2.4. In addition, JPS noted that for RT 10, "the On-Peak LRMC is almost 10 times higher than the Off-Peak LRMC resulting in a significantly higher energy charge for the On-Peak of J$56.17, relative to the J$8.75 for Off-Peak." This JPS argued could lead to suboptimal customer behavior by spurring customers to take "drastic and unconventional actions to reduce or limit their use of electricity during these hours".

6.2.5. Further JPS contended that "the conversion of the demand charges to energy charges only exacerbates these distortions and results in unintended negative consequences for the customer and JPS".

6.2.6. *Complex Customer Charge Structure:* JPS criticized the introduction of a multi-tiered customer charge structure for TOU customers on the following grounds:

- It is "not supported by the cost to serve or any other economic rationale. It, instead, represents an attempt to counter distortions inherent in the application of value taxes (GCT) for residential customers."
- It has added complexity that is "unnecessary, unwarranted and goes against the fundamental principle of simplicity in tariff design".
- It exposes customers "to large variations in their bills resulting from marginal changes in consumption. This will undoubtedly have the effect of rising complaints and customers' dissatisfaction, and as a result, negatively impact JPS' reputation."

6.2.7. *Implementation of the GCT proposal* : Given that the GCT applies to residential consumption above 150kWh it presents a problem since consumption takes place in three TOU time periods. Therefore, a methodology would be required to assigning the distribution of taxable consumption across usage. The OUR in the 2021 Annual Review Determination Notice recommended that in applying the 150kWh tax threshold, JPS should consider stacking customers consumption in the following order - "1st -Off-peak; 2nd - Partial-peak and 3rd On-peak." The OUR posits that this methodology would provide an added incentive to customers to shave consumption from the On-peak period and shifts it to the Off-peak period.

6.2.8. JPS argued in its Reconsideration Request that the OUR's suggested approach has two fundamental flaws.

- "The First is the matter of legality and compliance with tax legislation. As the OUR is aware and have admitted, the configuration and application of GCT to TOU residential customers, is a matter that can only be addressed by the Government of Jamaica (GOJ) and JPS. That is, the determination on TOU rates, entrenched with a certain biased logic, will not have bearing on the outcome of discussions between JPS and the GOJ."
- "The second issue with the OUR's suggested ranking approach is that it creates an added biased distortion to the price signal during the On-Peak period, that could exacerbate a suboptimal reduction in electricity consumption as customers take irrational and extraordinary actions to significantly reduce their electricity usage, rather than simply shift their load as assumed by the OUR. With the cost of the system

remaining to a large extent fixed, this will only serve to drive increases in electricity prices as overall demand declines."

6.3. OUR's Review

6.3.1. At the outset, it should be recognized that the Residential (RT10) TOU option, was a proposal from JPS in its 2019-2024 Rate Review Application, and not a construct imposed by the OUR. Additionally, if TOU rates are successful in causing customers to shift their consumption from the On-peak to other periods, the utility will benefit from reductions in its operating costs. The most expensive plants are deployed at On-peak periods and technical losses are higher at that time.

Revenue Recovery

6.3.2. The fundamental weakness in the RT10 TOU rates approved by the OUR in the 2019 -2024 Rate Review Determination, was the high likelihood of revenue losses by JPS. However, the problem was not seen as unfixable. Accordingly, the OUR and JPS agreed to work collaboratively to arrive at a solution by the time of the publication of the 2021 Annual Review Determination Notice. The solution arrived at by the OUR is a multi-tiered customer charge for TOU customers. Under this construct, the probability of revenue losses, if at all, would be small. These results and the associated model were shared with JPS before the final decision was taken.

6.3.3. In its Reconsideration Request JPS suggested that the OUR has assumed that customers would remain on the TOU option after discovering that it is more expensive, without the appropriate behavioral shifts. In this regard, JPS has not taken into account the effect of the graduated customer charges, which renders JPS's suggestion erroneous.

6.3.4. Further, in so far as the issue of revenue losses raised by JPS in its response to the 2019 - 2024 Rate Review Determination, the company has not shown by way of ex ante analysis that the revised construct in the 2021 Annual Review Determination Notice will inevitably result in revenue losses.

Long Run Marginal Cost

6.3.5. In the rate setting exercise, the objective of cost reflexivity must be balanced with other objectives such as the avoidance of rate shock and transparency. The TOU rates, set out in the 2021 Annual Review Determination Notice, was done on the basis of a modified LRMC approach, which took into account the potential for price shock, while including sufficient incentives in the design to encourage customers to change their behavior. The OUR is satisfied that the design will provide behavioral incentives to customers, while protecting JPS' revenues.

6.3.6. It is important to note that JPS is concerned that the revised TOU rate structure will result in significant shifts in customer behavior. This is ironic as the purpose of TOU rates are indeed to encourage behavioral changes. Further, if such change results in conservation of electricity to levels below achievement of the revenue requirement, then the revenue cap mechanism will address the gap in consumption. Additionally, if the shift in consumption from On-peak to Off-peak is significant, among other things, the benefits in terms of short term operating cost and long term capital cost could be substantial.

6.3.7. JPS's concern about customers behaving sub-optimally suggests that customers are lacking the capacity for rationality. Suboptimal consumption will likely become an issue if JPS blocks customers from switching freely between the regular and TOU rate options.

Multi-tiered Customer Charge

6.3.8. The OUR will not deny that having a multi-tiered customer charge adds a modest degree of complexity to the rates. However, this is deemed the better approach and more appealing than implementation of a demand charge or a structure that will result in revenue losses to JPS.

6.3.9. It is also worth noting that JPS has failed to recognize that the multi-tiered customer charge is primarily to insulate the company against unreasonable revenue losses. In this regard, JPS' suggestion that it is "unnecessary, unwarranted and goes against the fundamental principle of simplicity in tariff design" is misplaced.

GCT

6.3.10. The problem of the treatment of GCT is a matter that is independent of the OUR's decision on the implementation of the residential and small commercial customer TOU rates. As JPS had proposed the implementation of residential TOU rates, it would have been appropriate for the company to have worked out the details of the treatment of GCT on such rates prior to the issue of the OUR's decision. In any case, the OUR's GCT proposal is merely a recommendation, based on the existing tax framework, and not a determination to be complied with by JPS. As such, the OUR's GCT recommendation should not be used as a basis for not implementing the TOU rates.

Qualifying Criteria

6.3.11. Based on the structure of the TOU rates published by the OUR, the economics would be bad for customers consuming less than 200kWh. Hence, there is no need for a threshold. However, it may be prudent for JPS to advise customers below the 200 kWh consumption level not to take up the option.

6.4. Conclusion

6.4.1. **The Office has concluded that JPS's request for a further postponement of the TOU rates is without merit because the modifications made to the design and set out in the 2021 Annual Review Determination Notice minimize the risk of revenue losses, which is the main concern. Further, there is no way of knowing beforehand how customers will react to the new rate. It is therefore submitted that the implementation of the TOU rates would provide much needed data for the fine-tuning of the design.**

6.4.2. **As for JPS's purported hesitancy to implement the rate because of its uncertainty concerning the precise tax treatment, the OUR takes the view that this should not be used as a basis for not implementing the new rates as its proposal was merely a recommendation. The OUR has therefore concluded that the TOU rate is to be**

implemented as stated in Determination 6 of the 2021 Annual Review Determination Notice with the roll out of the new TOU rate classes by 2022 March 1.

RECONSIDERATION DECISION #4

The Office has concluded that JPS's request for a further postponement of the TOU rates is not convincing because the modifications made to the design and set out in the 2021 Annual Review Determination Notice substantially minimize the risk of revenue losses, which is the main concern. Accordingly, JPS shall be required to implement the TOU rates as stated in Determination 6 of the 2021 Annual Review Determination Notice.

7. Standby and Distributed Energy Resources (DER) Tariff

7.1. JPS's Request

7.1.1. JPS requested that OUR reconsiders its proposal specifically relating to the omission of the Non-Firm Category from the Standby Rate as an interim measure pending the submission and approval of distributed energy resources (DER) tariffs and a framework.

7.2. JPS's Justification

7.2.1. The separation of Standby into Firm and Non-firm services is not cost-reflective of the capacity, backup, and supply provided by the grid to customers, who are increasingly opting to own and operate production equipment to meet or offset their own electricity supply requirement. This not only contravenes the cost-causation tariff design principles, well established through precedents set out by the OUR, as well as espoused in other jurisdictions, but also enables an environment in which well-resourced large customers are able to hedge their investment in self-generation against a standby tariff, that is oblivious of fixed network costs. This will only result in the detriment to remaining customers, through a cycle of increased electricity prices.

7.3. OUR's Review

7.3.1. As indicated in the 2019-2024 Determination Notice, the Standby rate, including that for non-firm services, has been in place and available to customers, even before the 2019-2024 Rate Review. The OUR expressed the view in the 2021 Annual Review Determination Notice that it would not be fair to deny customers this option of obtaining electricity service without proffering a reasonable alternative. The OUR therefore decided to retain the Standby rates and structure pending the submission by JPS, and the approval by the OUR, of a new DER framework and rate structure. JPS has not provided information that would influence a change by the OUR in this position.

7.3.2. Further, JPS promised to submit a redesigned DER rate, which would include the Standby rate in 2021 August. This has not been done.

Conclusion

7.3.3. **The Office having considered JPS's request has concluded that in the absence of a redesigned DER rate it has no other option than to retain the Stand-by rate in its current construct. Accordingly, Determination 8 of the 2021 Annual Review Determination Notice remains unchanged.**

RECONSIDERATION DECISION #5

The Office having considered JPS's request has concluded that in the absence of a redesigned DER rate it has no other option than to retain the Stand-by rate in its current construct. Accordingly, Determination 8 of the 2021 Annual Review Determination Notice remains unchanged.

8. System Losses

8.1. JPS's Request

8.1.1. JPS requested that the OUR reconsider the portion of Non-technical losses which is completely within JPS's control (JNTL), and the portion of Non-technical losses, which is partially within JPS's control (GNTL) so that the allocations are revised to reflect precisely the ratios it submitted.

8.2. JPS's Justification

8.2.1. Firstly, JPS argued that the OUR's use of the words "small variances" in paragraph 8.13.14 in the 2021 Annual Review Determination Notice is a mischaracterization, since "small variances" in allocations have a large impact in the calculation of the penalty when combined with the targets."[6]. To illustrate the point, JPS stated "against a JNTL target of 5% the difference between a JNTL of 5.2% and 5.4% is twice as much. In light of this, JPS finds the assertion that its allocations are converging in the context of the PBRM to be incorrect."

8.2.2. Secondly, the company contended that "the OUR rejected JPS' proposal as unsuitable in the 2019 rate case, but now claims its own is suitable because it produces similar results to the one that was rejected". JPS therefore suggests that this position is contradictory.

8.2.3. Thirdly, JPS took the view that the OUR mischaracterized the Non-technical losses (NTL) allocation. Based on its interpretation of the issue, the company stated that "it has no idea which factors affects the OUR's determination of its responsibility for losses or the degree to which each factor affects its responsibility."

8.2.4. JPS in its request for reconsideration also demanded that the OUR produce its calculation methodology that JPS may:

1) Know the precise factors that affect the allocation;
2) Reproduce the results given the inputs;
3) Orient its plans and activities around the factors that JPS is in control of;
4) Assess and potentially mitigate the risk of factors that JPS is not in control of;
5) Evaluate scenarios to optimize its plans and activities for the best results.

8.3. OUR's Review

8.3.1. In evaluating JPS's system losses reconsideration request, the OUR takes the view that the appropriate reference point is the Final Criteria requirements. In that regard, Criterion 12 (Y-Factor Adjustment) of the Final Criteria, stipulates that JPS, in submitting its system losses proposals for each year during the 2019 - 2024 Rate Review period, shall provide the relevant supporting schedules, to include:

- The details of calculations;
- Energy Loss Spectrum (ELS); and

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[6] In its submission JPS had cited paragraph 8.43 of the *2021 JPS Annual Review Determination Notice* , but it is actually paragraph 8.13.14.

- All other relevant data to substantiate its system losses projections and proposed targets.

8.3.2. With respect to the allocation of NTL into JNTL and GNTL, the Final Criteria outlines that this process be guided by the OUR's position on the disaggregation of NTL outlined in Annex 3 of the said Final Criteria. It further indicates that JPS's proposed NTL distribution (JNTL and GNTL), shall be supported by reasonable distribution factors, and at least three (3) years of field data on the sources and modes of NTL detected by the company.

8.3.3. Therefore, with respect to JPS's request for information in relation to the calculation methodology for the 2020 NTL, the OUR directs JPS to the Final Criteria and the associated Annex 3. As provided for by the provisions of the Licence, this was the guide that the OUR followed in calculating the allocation of system losses between its defined constituent parts. Additionally, it should be noted that the classification of system losses is not an exact science and involves a certain degree of judgement that must take into account the fact that the regulator faces an information asymmetry skewed in favour of the utility.

Contribution to the Cost of System Losses

8.3.4. Before specifically addressing the issues raised by JPS, it is useful to assess JPS's contribution versus the customers' contribution towards non-fuel system losses.

8.3.5. As shown in Table 4 below, over the years the customers' contribution to non-fuel system losses in relative terms has increased. Since the introduction of the Licence in 2016, the customer contribution has climbed to, and remained above twenty percentage points. In 2014, JPS accounted for 9.1 percentage points, while customers absorbed 17.5 percentage points. However in 2020, JPS accounted for a mere 2.1 percentage points in comparison to the 26.1 percentage point borne by customers.

8.3.6. At 28.1% in 2020, total system losses is higher than it has ever been. Yet, if 2019 is not taken into account given the terms of a special programme to finance JPS's loss reduction effort[7], the 2.1 percentage points in 2020 equals JPS's contribution in 2016, which puts its contribution to losses at the lowest level since 2002. The extent of the imbalance in favour of JPS suggests that the results may be skewed by information asymmetry and that the methodology used in the allocation of system losses in the NTL should be re-examined.

Mischaracterization of the term "Small variances"

8.3.7. JPS's objection to the system loss determination in the 2021 Annual Review Determination Notice on the grounds that the OUR's use of the term "small variances" is a mischaracterization of the situation and is not a basis upon which the determination should be revised. The actual term used in the Determination Notice was "relatively small variances" which puts the comparison of JPS's and the OUR's NTL calculations in a historical context. Therefore, the static analysis JPS relied on in its critique of the use of the phrase "small variances" is flawed.

[7] The special programme called the Accelerated Loss Reduction Initiative Mechanism (ALRIM) increased JPS' JNTL from 3.6% to 5.75%. The monetary difference in the target that accrued to JPS was to be used to further reduced losses.

8.3.8. In assessing tariff decisions, what is important is whether, as stated in Schedule 3, paragraph 9 of the Licence, the OUR observed "reasonable standards of procedural fairness and the rules of natural justice." This was done. If there is any imbalance in the decision arising from information asymmetry, the numbers suggest that it would be in JPS's favour. JPS's objection on the ground of mischaracterization is semantics, and does not provide a justification to the OUR to replace its losses allocation with that submitted by JPS.

Table 4 –System Losses Actual, Targets and Contribution 2001 -2020

Year	Base System Losses Target	Actual System Losses	Contribution		Losses Applied to:
			JPS	Customer	
2001	15.8%	17.0%	1.2%	15.8%	Fuel Revenues
2002	15.8%	17.8%	2.0%	15.8%	
2003	15.8%	18.9%	3.1%	15.8%	
2004	15.8%	20.0%	4.2%	15.8%	
2005	15.8%	22.3%	6.5%	15.8%	
2006	15.8%	23.5%	7.7%	15.8%	
2007	15.8%	22.4%	6.6%	15.8%	
2008	15.8%	24.1%	8.3%	15.8%	
2009	19.5%	23.3%	3.8%	19.5%	
2010	19.5%	21.8%	2.3%	19.5%	
2011	17.5%	23.2%	5.7%	17.5%	
2012	17.5%	25.0%	7.5%	17.5%	
2013	17.5%	26.6%	9.1%	17.5%	
2014	17.5%	26.6%	9.1%	17.5%	
2015	19.2%	27.0%	7.8%	19.2%	
2016	21.5%	26.7%	2.1%	24.6%	Non-Fuel Revenues
2017	21.0%	26.5%	4.2%	22.2%	
2018	21.3%	26.3%	3.7%	22.6%	
***2019**	**23.5%**	**26.1%**	**0.7%**	**25.4%**	
2020	24.1%	28.1%	2.1%	26.0%	

Note: ** The year in which ALRIM was applicable and JPS target was eased.*

Contradiction in Procedure

8.3.9. JPS's second objection to the OUR's determination on system losses in the 2021 Annual Review Determination Notice is based on the notion that it is contradictory given the treatment accorded to its 2019 -2024 Rate Review Application.

8.3.10. Notably, while JPS in its 2019-2024 Rate Review Application, proposed annual NTL levels and targets for JNTL and GNTL for the 2019-2024 revenue cap period, the specific causes, modes and distribution of the defined categories of NTL were not adequately addressed and did not fully satisfy the requirements of the Final Criteria. This created challenges for the OUR's NTL evaluation during the 2019-2024 Rate Review process. Given this constraint, the Office in Determination #21(7) of the 2019-2024 Determination Notice, stipulated that at each Annual Review during the Rate Review period, the company shall submit with reasonable accuracy, the specific sources and distribution of the energy losses for all the NTL categories, supported by the associated reports and details of the field investigations and analyses. It is was therefore on the basis of the data from JPS that the 2020 system losses allocation was assessed, while applying the guidelines set out in the Final Criteria.

Responsibility for NTL

8.3.11. JPS contended that the concern it has with the allocation of NTL is that the company has no idea which factors affect the OUR's determination of JPS's responsibility for losses, or the degree to which each factor affects its responsibility. It comes as a surprise that JPS has raised this concern because these matters have been the subject of significant discussion at the JPS/OUR Losses Interface Committee (LIC) meetings held in 2018 to 2019, as well as other consultation sessions on the matter between the parties. Notwithstanding, matters relating to the responsibility for NTL and JNTL/GNTL allocation have been addressed in detail in the annual review determination notices issued for 2016 to 2018, the Final Criteria, and the 2019-2024 Determination Notice.

8.4. Conclusion

8.4.1. **The Office has reviewed JPS's Reconsideration Request for the substitution of the JNTL and GNTL allocations in the 2021 Annual Review Determination Notice with those in its 2021 Annual Review Filing i.e. JNTL (5.82%) and GNTL (14.30%). Pursuant to the requirements of the Licence, and in the absence of compelling justification for such a substitution, the Office maintains its position as set out in the 2021 Annual Review Determination Notice. The Office decision on losses as stipulated in Determination 21 of the 2019-2024 Determination Notice and Determination 14 of 2021 Annual Review Determination Notice shall therefore remain in effect. To do otherwise would be imprudent and unreasonable to customers who already shoulder the lion's share of the cost of system losses.**

RECONSIDERATION DECISION #6

Based on the Office's review of JPS's Reconsideration Request for the substitution of the JNTL and GNTL allocations in the 2021 Annual Review Determination Notice with those in its 2021 Annual Review Filing, the Office has concluded that the company's proposal is not justified. In this regard, the Office decision on losses as stipulated in Determination 21 of the 2019-2024 Determination Notice and Determination 14 of 2021 Annual Review Determination Notice shall remain in effect.

9. Heat Rate

9.1. JPS's Request

9.1.1. In its Reconsideration Request, JPS proposed that the Annual Heat Rate Target for JPS's Thermal Plants for the Rate Adjustment Period 2021-2022 be changed from 9,667 kJ/kWh to 9,927 kJ/kWh.

9.2. JPS's Justification

9.2.1. In making its case for a higher heat rate target, JPS:

a) Requested that the OUR "clarify the specific months in which JPS' forecasted heat rate is excessive, taking into account what is required to operate the power system in accordance with the requirements of the Licence and sector Codes.";

b) Suggested that due consideration may not have been given to the impact of the major overhaul (40 days) needed for Steam Turbine 14 (ST14). During this time there would be need for the dispatch of GT12 & GT13 in Simple cycle to avoid Transmission Voltage violations. Hence, JPS argued that its own targets for February and March 2022, should be 10,654 and 12,341 kJ/kWh respectively, and not 10,516 and 12,056 kJ/kWh;

c) Contended that the OUR did not provide a reasonable buffer, in the determined Heat Rate target for the 2021-2022 period, that would allow the company to meet certain technical obligations. JPS contended that the Licence and the Electricity Codes require that it "operate the grid in a manner that secures against N-1 contingencies". JPS further stated that historically, the OUR target would have a buffer of closer to 150 to 200 kJ/kWh. However, in its estimation, JPS has deduced that for the approved target the buffer would be -56 kJ/kWh.

9.3. OUR's Review

<u>Introduction</u>

9.3.1. In keeping with the regulatory framework, the OUR is guided by the following principles in setting JPS's heat rate target as a part of the Rate Review exercise:

1) The targets should hold JPS accountable for the factors, which are under its direct control;

2) The targets should encourage optimal generation dispatch of the available generating units to minimize the total cost of electricity generation;

3) The targets should take into account legitimate system constraints, provided that JPS is taking reasonable action to mitigate such constraints;

4) The targets should normally be set at the Rate Review and reviewed at each annual review, and adjusted as applicable, to reflect changes in system configuration and on-going energy efficiency (EE) improvements; and

5) The targets should be reasonable and achievable, and consistent with the configuration/capability of the system during the applicable period.

9.3.2. It is important to note that these targets are not set to replicate JPS's proposed heat rate target, but instead to promote greater efficiency on the part of the utility, since there is a monetary incentive tied to the company's bettering the target. Additionally, while the OUR has used buffers in its target setting procedures, this is completely discretionary and is often connected to the performance risks associated with the plants in the utility fleet. In fact, in setting efficiency targets, it is accepted in regulatory practice to include 'stretch factors' in the target setting process, because utilities more often than not, are capable of achieving greater efficiencies that they are likely to reveal.

9.3.3. Paragraph 46 d of Schedule 3 of the Licence states that heat rate targets should be "a pre-established yearly target in the 5 year rate setting Determination by the Office". Therefore, these annual targets are not intended to take into account the deviations from the expected trajectory that inevitably occur.

<u>Request for Clarification</u>

9.3.4. First, it should be understood that consistent with the Licence, heat rate targets set by the Office at Rate Reviews represent a single average 12-month reference point, which is applied on a monthly basis. It is not a set of separate monthly targets applied in the H-Factor, as implied by the company in its Reconsideration Request. In this regard, JPS's highlighting of its expected performance in 2022 February and March is neither balanced nor helpful, since JPS has missed the bigger picture by pulling out two months out of the year to justify a more favourable target. The discussion at the introduction of this section, which the OUR has consistently articulated, should aid in clarifying the target-setting approach used by the OUR.

<u>Consideration for Major Overhauls</u>

9.3.5. As delineated in the 2021 Annual Review Determination Notice, JPS in its 2021 Annual Review Application revised the original 2021-2022 heat rate forecast in its 2019-2024 Rate Review Application upwards. This resulted in an increase in the projected 12-month average Heat Rate from 9,657 kJ/kWh to 9,723 kJ/kWh. Accordingly, this would translate to an average increase of 66 kJ/kWh in the Heat Rate value for each month during the 2021-2022 rate adjustment period. According to JPS, this increase was warranted as ST14 is scheduled to undergo a major overhaul (40 days) and the heat rates in 2022 February and March will be adversely affected.

9.3.6. JPS's proposal for the increase in the 2021-2022 heat rate, however, was not accepted by the OUR on the premise that the conditions the company claimed would impact its heat rate performance during the 2021-2022 rate adjustment period, were already factored in its proposals in the 2019-2024 Rate Review Application. Therefore, to accept JPS's new projection would be the equivalent of double counting. Additionally, the 2021 Annual Review Determination Notice indicated that under the assumed system operating conditions, JPS's Heat Rate projections for 2022 February and March included in the 2019-2024 Rate Review Application, were found to be questionable and not in line with optimal generation dispatch. In any case, the buffer or margin of error provided within the OUR's average 2021-2022 was adequate to address such a contingency.

Inconsistency in the Buffer

9.3.7. It should be borne in mind that the buffer in the heat rate target is an ex ante parameter which was set in the 2019-2024 Rate Review for the 2021-2022 period. It is therefore misleading to assess that buffer against a different set of assumptions later when there are greater certainties about forecasted events. It is this type of 'post-target' setting analysis that JPS has used to arrive at the erroneous conclusion that the buffer in the target is -56kJ/kWh, when in fact it was a generous 336 kJ/kWh.

9.3.8. Secondly, a buffer is not a static parameter that does not change regardless of the system generation conditions. It is well established that the generation system has become more reliable since 2019 with the retiring of old, inefficient plants, and the addition of 288MW of new capacity, along with the introduction a 24.5MW energy storage facility to the grid. Therefore, going forward, stretch factors rather than buffers may be more in line with promoting generation efficiency. In this regard, regulatory consistency is tied to a set of principles rather than a range in a target.

9.3.9. Thirdly, buffers and stretch factors are based on regulatory discretion and not utility entitlement. At the same time, the OUR will admit that it is aware of the awesome responsibility that comes with the exercise of discretion and therefore strives to employ it judiciously, and as a tool to promote efficiency. Therefore, JPS has no claim to a specific buffer. That said, the OUR must make it clear that in establishing the 2021-2022 heat rate target, sufficient provisions were already made for contingencies. There is no need at this time to adjust the target since an adequate buffer has already been included in the heat rate target.

9.4. Conclusion

9.4.1. **The Office, having reviewed JPS's Reconsideration Request that the 2021-2022 Heat Rate target approved in the 2021 Annual Review Determination Notice be changed to 9,927 kJ/kWh, and considered the requirements of the Licence, conclude that the heat rate target of 9,667 kJ/kWh shall remain in effect for the 2021-2022 period.**

RECONSIDERATION DECISION #7

The Office, having reviewed JPS's Reconsideration Request that the 2021-2022 Heat Rate target approved in the 2021 Annual Review Determination Notice be changed to 9,927 kJ/kWh, concluded that the heat rate target of 9,667 kJ/kWh shall remain in effect for the 2021-2022 period.

10. IPP Revenues in the System Losses Calculation

10.1. Introduction

10.1.1. In the Final Criteria, the OUR signaled to JPS its intention to separate independent power producers' (IPP's) non-fuel costs from the general non-fuel costs. This was primarily for the purpose of transparency. JPS in response, requested in its 2019 – 2024 Rate Review Application that "[a]ny revenue true-ups in the interim years would be applied on the prior year's annual revenue targets (ART) which excludes base non-fuel purchase power cost." The OUR did not address this request in the 2019 – 2024 Rate Review Determination Notice, and in its 2021 Annual Review Determination Notice omitted to include IPP non-fuel costs in its system losses revenue true-up calculation. JPS, understandably, took this to mean that the OUR had acceded to its request. Hence, in its Reconsideration Request JPS, among other things, commended the OUR for "the exclusion of IPP revenues from the 2020 system losses penalty.[8]" This reconsideration exercise, therefore provides an opportune time to remove all ambiguities by addressing the issue directly.

10.2. Background

10.2.1. The Licence effected a number of changes in 2016, including the introduction of a new performance based rate-making (PBRM) mechanism for rewarding and penalizing system losses. Prior to 2016, the system losses mechanism was predicated on the monthly total fuel cost, which included fuel cost from IPP's generation. The new system losses construct, among other things, introduced three fundamental changes:

(a) It disaggregated non-technical losses into two components - JNTL and GNTL[9];

(b) It substituted non-fuel cost for fuel cost, in the PBRM mechanism; and

(c) It used an annual calculation of rewards/penalties instead of monthly adjustments.

10.2.2. The rationale for the changes was derived from the notion that:

- JPS should not be held fully accountable for losses, since there was some social responsibility for the problem which should be borne by the general society. Hence, the disaggregation into JNTL and GNTL;
- The fuel costs were volatile and subject to volumetric fluctuations. Consequently, the company's non-fuel cost represents a more stable metric for the calculation;
- Given that the revenue cap mechanism provides for annual non-fuel revenue adjustments, it would be appropriate for the revised system losses mechanism to accord with this timing.

10.2.3. That said, the cardinal question that must be addressed is whether by disaggregating the overall non-fuel cost into JPS and IPP components, this completely removes the IPP costs from the system losses incentive/penalty mechanism.

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[8] JPS 2019-2024 Tariff Application, p.287 -288

[9] JNTL and GNTL are described in Section 6 above.

10.3. OUR's Position

<u>The Technical Perspective</u>

10.3.1. In terms of the Annual Review, in computing the PBRM, the Office is obliged to apply the methodology set out in Exhibit 1 of Schedule 3 of the Licence.[10] Exhibit 1 indicates that the following formula should be applied:

"The Annual Revenue Target shall be adjusted on an annual basis, commencing July 1, 2016, (Adjustment Date), pursuant to the following formulae:

$$ART_y = \boldsymbol{RC_y}(l + dPCI) + (\boldsymbol{RS_{y-1}} + SFX_{y-1} - SIC_{y-1}) * (1 + WACC)$$

Where:

$\boldsymbol{RC_y}$ *= Revenue Cap for the current tariff adjustment year "y" as established in the last Rate Review Process*

$\boldsymbol{RS_{y-1}}$ *= Revenue surcharge for year "y-1"*

$SFX_{y-1} - SIC_{y-1}$ *= annual Foreign Exchange-Net Interest surcharge*

WACC = Weighted average cost of capital

10.3.2. Further, $\boldsymbol{RS_{y-1}}$ is the sum of the volumetric surcharge associated with the billing determinants ($TUVol_{y-1}$) and the system losses adjustment incentive/payment arising from JPS's performance in *"y-1"*. Hence;

$$\boldsymbol{RS_{y-1}} = TUVol_{y-1} + \boldsymbol{TULos_{y-1}}$$

10.3.3. Additionally, as specified in Schedule 3 of the Licence, the system losses adjustment to be applied at JPS's Annual Reviews is the total system losses differential (Y_{y-1}) multiplied by Actual Revenue Target in the previous year (ART_{y-1}). Mathematically, this may be expressed as:

$$TULos_{y-1} = Y_{y-1} * ART_{y-1}$$

10.3.4. Based on the construct in the Licence, the Actual Revenue Target is the sum of JPS's and IPP's non-fuel cost. In this regard, the Actual Revenue Target may be expressed as:

$$ART_y = ARTJ_y + ARTI_y$$

Where: $ARTJ_{y-1}$ *= Actual Revenue Target for JPS Non-fuel cost in year y-1*
$ARTI_{y-1}$ *= Actual Revenue Target for IPP Non-fuel cost in year y-1*

[10] Paragraph 42 of Schedule 3

10.3.5. In all previous annual reviews since 2016, and consistent with the intent of the Licence, the computation of the system losses incentive/penalty has been based on the aggregation of JPS's and IPP's non-fuel costs. Therefore, the separation of the two costs categories for reasons of transparency and optics cannot be deemed as the basis of eliminating the IPP component from the equation.

10.3.6. More importantly, there has been no change in the structure of the electricity supply chain. IPPs sell power to JPS which is placed on JPS's transmission and distribution grid. Thereafter, JPS is responsible for the movement of the power to the customer with minimal losses. Therefore, by leaving IPP generation out of the annual adjustment equation, this would suggest that IPP power is delivered independently of JPS's grid, where obviously, this is not the case.

<u>The Legal Perspective</u>

10.3.7. As mentioned earlier JPS's request in relation to the exclusion of IPP non-fuel cost in the annual adjustments, was not specifically and explicitly addressed by the OUR in the 2019 – 2024 Rate Review Determination Notice. The OUR did not specifically address JPS's proposal, even though it took the view that the disaggregation of the non-fuel cost would enhance transparency and cost reflectivity, and also served to reduce administrative complexity. Given the gravity of the proposed amendment, this would normally have attracted an explicit determination. The absence of specific treatment suggests an oversight on OUR's part, which should be addressed.

10.3.8. Although there was no explicit verbiage pertaining to that aspect of JPS's proposal in the 2021 Annual Review Determination Notice, the system losses adjustment to the tariff was calculated exclusively based on JPS's non-fuel revenue.

10.3.9. The separation of IPP's non-fuel cost and JPS's non-fuel cost was in essence, a change in form and not one of substance. As indicated by the OUR, the separation was undertaken to enhance transparency and to minimize administrative complexity. In other words, the separation exercise in itself did not affect the substance of the mathematical calculation of the Actual Revenue Target as set out in the Licence.

10.3.10. However, the nature of JPS's request for the exclusion of IPP non-fuel cost in the revenue true-up as outlined in its 2019 – 2024 Rate Review Application, in essence, involves a formulaic change. The proposed approach would require a change in the specified methodology outlined in Exhibit 1. This brings us to the question as to whether the OUR is empowered to accede and approve the request, and to effect such a change.

10.3.11. In the prior versions of JPS's licence, the OUR was empowered to effect changes to the Conditions and Schedules relating to Standards and Price Controls, which includes Schedule 3. The Amended and Restated Electric Licence, 2011, Condition 30 stated as follows:

> "1. This Licence may be modified at any time during the term by agreement between the Licensee and the Minister.

2. Notwithstanding paragraph 1 modifications to the Conditions and Schedules relating to Standards and Price Controls shall be modified by the Office, after taking the views of the Licensee into consideration, without reference to the Minister."

10.3.12. With the amendments to the Amended and Restated Electric Licence, 2011 in 2016, which are now embodied in the Licence, Condition 30 paragraph 2 was deleted. Pursuant to that amendment, the OUR no longer has the power to make modifications to the Licence provisions. Such a power rests solely within the purview of the Minister and JPS by agreement. Therefore, the OUR is not empowered to effect any changes to the Licence, formulaic or otherwise. Hence, the OUR is obliged to adhere to and apply the provisions of the Licence as stated. So, if as concluded herein, the change requested by JPS would require a formulaic amendment, the OUR is not empowered to effect same and therefore would be acting outside of the limits of its powers, if it attempts to do so.

10.3.13. The fact that the OUR did not directly address the matter in the 2019 – 2024 Rate Review Determination Notice and excluded the IPPs non-fuel cost in the system losses true-up calculation in the 2021 Annual Review Determination Notice, does not override its obligation to adhere to the provisions of the Licence. Therefore, having discovered the oversight, the OUR is obliged to directly address the matter in this reconsideration decision.

10.4. Conclusion

10.4.1. **Based on the foregoing, the conclusions are as follows:**

(i) **The separation of IPP's non-fuel cost from JPS's non-fuel cost does not represent a change in the delivery mechanism for the supply of electricity. It was purely a matter of form, to enhance transparency and cost reflectivity and to reduce administrative complexity;**

(ii) **JPS's request, that is, "Any revenue true-ups in the interim years would be applied on the prior year's annual revenue targets (ART) which excludes base non-fuel purchase power cost." would require a change in the methodology outlined in the provisions of Exhibit 1 of the Licence. The OUR is however not empowered to approve and effect any substantive change to the provisions of the Licence. This can only be done by agreement between the Minister and JPS;**

(iii) **The fact that the OUR did not specifically address the relevant request by JPS in the 2019 – 2024 Rate Review Determination Notice, and calculated the system losses exclusively on JPS's non-fuel revenue in the 2021 Annual Review Determination Notice, represent an oversight and error on the part of the OUR respectively, and do not override the OUR's obligation to adhere to the provisions of the Licence. By seeming to approve JPS's proposal, the OUR would be acting outside the ambit of its powers;**

10.4.2. **In omitting to address JPS's proposal, the OUR's silence may have been interpreted by the company incorrectly as consent. The OUR therefore, has an obligation to state clearly that JPS's proposal for the exclusion of IPP costs from the system losses calculation is not approved. Further, the revenue correction for the omission of these costs from the system**

losses true-up calculation in the 2021 Annual Review Determination Notice shall be done at the 2022 Annual Review.

RECONSIDERATION DECISION #8

JPS's proposal for the exclusion of IPP costs from the system losses calculation is not approved. Further, the Office has ruled the revenue correction for the omission of these costs from the system losses true-up calculation in the 2021 Annual Review Determination Notice shall be done at the 2022 Annual Review.