
Office of Utilities Regulation

Jamaica Public Service Company Limited Tariff Review for Period 2014 - 2019

Determination Notice - Addendum 1



OFFICE OF UTILITIES REGULATION

February 27, 2015

DOCUMENT TITLE AND APPROVAL PAGE

DOCUMENT NUMBER: 2015/ELE/003/ADM.001

**1. DOCUMENT TITLE: Jamaica Public Service Company Limited Tariff
Review for the Period 2014 -2019: Determination Notice –
Addendum 1**

2. PURPOSE OF DOCUMENT:

This document sets out the Office’s decision regarding the amendment of non-fuel rates based on revised RT10 energy demand data.

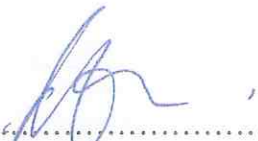
3. ANTECEDENT DOCUMENTS

Document Number	Description	Date
2014/ELE/008/DET.004	Jamaica Public Service Company Limited Tariff Review for Period 2014 - 2019: Determination Notice	January 7, 2015

4. APPROVAL

This document is approved by the Office of Utilities Regulation and the decisions therein become effective on **March 1, 2015**.

On behalf of the Office:



.....
Albert Gordon
Director General

Date: February 27, 2015

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1. Introduction

On April 7, 2014, the Jamaica Public Service Company Limited (JPS) submitted its proposal for a tariff review (JPS' Tariff Submission) in accordance with the provisions of the Amended and Restated All-Island Electric Licence, 2011. A final set of data forming part of JPS' Tariff Submission was received on April 8, 2014 and this allowed for the commencement of the review process by the Office of Utilities Regulations (the Office/ the OUR). Albeit there was need to revert to JPS on a number of occasions for clarification, additional information and verification which inevitably led to waiting periods.

On January 07, 2015 the Office issued the Jamaica Public Service Company Limited Tariff Review for the Period 2014 -2019: Determination Notice 2014/ELE/008/DET.004 (the Determination Notice) setting out its specific determinations on JPS' Tariff Submission. This document is an addendum to the Determination Notice which addresses the calculation of rates to allow the recovery of the Revenue Requirement in the Determination Notice based on the revised energy demand data submitted by JPS on January 29, 2015.

1.1. Background

Subsequent to receiving the Determination Notice, JPS responded on January 13, 2015 suggesting that there was *“an error in the computation of the energy revenue for Rate 10 customers and that, based on the OUR's determined tariffs, will not allow JPS to recover the determined revenue requirement of J\$41,570,355,652 (excluding the EEIF [Electricity Efficiency Improvement Fund])”*.

By letter dated January 23, 2015, OUR responded to JPS advising that the computations in the Determination Notice were done based on the data submitted in the Real Demand Data Sheet by JPS in the file labelled “JPS – Tariff Design Model.xlsm” (see Table 1.1 below). The OUR also requested that JPS advise if there were errors in those submissions and if so, to explicitly indicate what they were and how they were made.

Table 1.1 JPS Real Demand Data submitted April 4, 2014

	Units	2008	2009	2010	2011	2012	2013
Demands							
Energy Sales							
RT 10 LV Res. Service First 100 kWh	MWh	352,473	327,571	400,848	109,251	114,707	118,508
RT 10 LV Res. Service Over 100 kWh	MWh	679,709	764,332	665,114	941,969	910,448	867,131
RT 20 LV Gen. Service	MWh	650,424	670,030	707,892	643,615	600,501	652,741
RT 60 LV Street Lighting	MWh	69,373	70,388	73,747	71,128	70,060	73,027
RT 40 LV Power Service (Std)	MWh	608,416	626,672	608,967	665,163	669,982	645,804
RT 40 LV Power Service (TOU)	MWh	151,329	150,917	136,968	137,194	128,089	121,303
Wheeling LV	MWh	0	0	0	0	0	0
RT 50 MV Power Service (Std)	MWh	360,169	383,781	360,536	406,482	408,237	411,322
RT 50 MV Power Service (TOU)	MWh	136,098	120,376	194,137	111,094	113,766	105,893
Wheeling MV	MWh	0	0	0	0	0	0
Caribbean Cement Company	MWh	0	0	0	0	87,173	89,886
Total	MWh	3,007,990	3,114,066	3,148,208	3,085,897	3,102,964	3,085,616

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On January 29, 2015 JPS submitted a revision of the real demand data (see Table 1.2 below) which was presented in the “Real Demand” worksheet of the Tariff Design Model Excel file submitted as part of JPS’ Tariff Submission. JPS stated that the Rate 10 energy consumption for each of the years 2011 through 2013 had been restated and formatted to be consistent with the presentation for the years 2008 to 2010.

Table 1.2 JPS Real Demand Data revised January 29, 2015

	Units	2008	2009	2010	2011	2012	2013
Demands							
Energy Sales							
RT 10 LV Res. Service First 100 kWh	MWh	352,473	327,571	400,848	493,161	492,376	497,792
RT 10 LV Res. Service Over 100 kWh	MWh	679,709	764,332	665,114	558,059	532,779	487,847
RT 20 LV Gen. Service	MWh	650,424	670,030	707,892	643,615	600,501	652,741
RT 60 LV Street Lighting	MWh	69,373	70,388	73,747	71,128	70,060	73,027
RT 40 LV Power Service (Std)	MWh	608,416	626,672	608,967	665,163	669,982	645,804
RT 40 LV Power Service (TOU)	MWh	151,329	150,917	136,968	137,194	128,089	121,303
Wheeling LV	MWh	0	0	0	0	0	0
RT 50 MV Power Service (Std)	MWh	360,169	383,781	360,536	406,482	408,237	411,322
RT 50 MV Power Service (TOU)	MWh	136,098	120,376	194,137	111,094	113,766	105,893
Wheeling MV	MWh	0	0	0	0	0	0
Caribbean Cement Company	MWh	0	0	0	0	87,173	89,886
Total	MWh	3,007,990	3,114,066	3,148,208	3,085,897	3,102,964	3,085,616

The OUR, in letter dated February 3, 2015 to JPS, expressed its concerns regarding the quality of the data presented and the methodology to be applied. The OUR stated as follows:

“JPS is advising that “the Rate 10 energy consumption for each of the years 2011 through 2013 has been restated and formatted to be consistent with the presentation for the years 2008 to 2010 (see extracts below). Unfortunately an attempt to reconcile the application of the method used to allocate the real demand (energy sales) to the frequency interval as it relates to the Rate 10 billing determinant used to calculate the overall rate 10 revenue has left us still concerned about the consistency of the data set and/or the methodological approach.

Our analysis (see inserts) shows that when we applied the method JPS used to allocate the demand for 2011 – 2013 to the period 2008 – 2010 adjusting backwards, the method resulted in negative demand for the RT 10 LV Res. Service First 100 kWh...

We had indicated when we last met with the JPS’ team that we would require some independent validation of the submission to ease our discomfort with what appears to be “counterintuitive outcomes” for some periods; hence the request to have some audit assurance...”

Subsequently, the OUR in letter dated February 09, 2015 requested JPS to provide the following information:

- Auditor’s verification that the RT10 energy demand data which was uploaded to the shared electronic platform on February 5th and 6th were taken from the CIS data file and was unaltered.

- Submission of the monthly energy consumption data from the JPS Meter Reading System (MRS) for all customers for the year 2013 with verification from the JPS auditors that the information was unaltered.
- Resubmission of the energy demand data summary in the format that aggregates the lifeline consumption for RT10 customers (that is, lifeline consumption for all RT10 customers should be in one bucket) and energy demand data summary for all the other rate classes.

On February 11, 2015 JPS uploaded to the shared electronic platform the Auditor Certified CIS Bill Consumption Data. Subsequent to the February 11, 2015 upload, a revised version of the R10 Consumption data for May 2013 was uploaded and a replacement report from the auditor of the same date was also submitted. On February 16, 2015 the OUR completed its review of the Auditor Certified version of the RT10 energy demand data and concluded that it matched the revised data that was submitted by JPS on January 29, 2015. There were still apparent anomalies however, for which the OUR required explanations. JPS was therefore requested to provide such explanation by way of letter dated February 16, 2015. The points of queries were:

- The data contained negative energy consumption totalling 2.5GWh for approximately 2375 residential customers.
- On the average 37,280 residential customer's accounts showed zero consumption on a monthly basis.
- The Auditor Certified CS Bill Consumption Data in the category "RT LV Res. Service Over 100 kWh" was at variance with the JPS revised data presented to the OUR on January 29, 2015 in the amount of 2,721MWh.

On February 23, 2015 JPS uploaded the monthly meter reading data from the JPS MRS. Also, JPS responded on February 23, 2015 stating in part:

- *"Negative Billed Consumption. Generally, negative consumption billed to customers arises from adjustments made to accounts to correct errors identified, while all adjustments have an accompanying explanation in the Billing System, the process of filtering and codifying the reasons for adjustments into generic categories is a time consuming and tedious exercise. A sample of adjustments representative of the twelve months period was therefore used to derive the main drivers of these adjustments.*

Of a sample of 9,679 instances of negative adjustments that were recorded in 2013, the major causal factors were correction of estimated billing, incorrect meter reading, incorrect billing and other factors including defective meters, negative reading (possibly arising from meter tampering), correction of back-billed consumption adjustments, incorrect wiring, etc.

- **Zero Bill Consumption.** *There are a number of legitimate reasons for zero billed consumption being generated on customers, accounts in the normal course of business. These include the following main casual factors.*
 - *Disconnected accounts that have been reconnected before the next billing date.*
 - *Nil consumption defects relating to the Meter not registering consumption. This could result from a mechanical failure of the meter or tampering by the customer which bypass the meter or prevents the meter from recording consumption.*

- *Vacant Premises – Genuine zero consumption at customer premises primarily due to such premises being unoccupied during the billing period.*
- *Customers who have requested disconnection of their service but whose service had not been terminated on the billing system at the next scheduled billing date.*
- *2,721MWh variance between Data provided in January and Audited Data. The variance identified in your letter arose primarily on account of the treatment of negative billed consumption in both datasets. While the OUR analysis excludes the negative consumption arising on the residential accounts, the data provided by JPS on January 29, 2015 includes this component in the total consumption. Based on our [JPS] calculation the audited dataset (including negative billed consumption) differs from the dataset provided on January 29th by 233MWh (OURs Consumption analysis based on the KPMG data pull – 985,872MWh; JPS data provided on January 29, 2015 – 985,639 MWh). We [JPS] attribute this difference to adjustments that would have been posted to the system in the time interval between the extraction points of both datasets from the database (Jan. 2014 – JPS, Feb. 2015 – KPMG). The CIS system is an open item system which allows for adjustments to be posted to previous periods. The dataset can only be preserved by archiving the exact dataset pulled on each occasion. Nevertheless, all adjustments are auditable and can be tracked by the system.”*

The explanations proffered by JPS could only be verified by conducting an extensive and detailed audit which time does not allow at this stage. The OUR has therefore utilized the revised data submitted on January 29, 2015 and recomputed the tariff to take into account the apportionment of the energy demand for residential customers. The OUR will conduct an audit of the energy demand data and the OUR reserves the right to adjust the non-fuel rates in the event that there is a material difference between the audit results and the revised data submitted by JPS. Consequent on the OUR’s consideration of the revised data submission by JPS, the Office makes the following amended determinations which shall become effective March 1 2015.

2. Amended Determinations

2.1. Approved Non-Fuel Rates (J\$/kWh) by Customer Class

The approved non-fuel rates to be charged by JPS shall be as set out in Table 2.1 below at a base exchange rate of \$112:00: US\$.

Table 2.1 OUR Approved Non-Fuel Rates (J\$/kWh) by Customer Class

Class	Block/Rate Option (kWh)	Customer Charge (J\$/kWh)	Energy Charge (J\$/kWh)	Demand Charge (J\$/kVA)			
				Std.	Off-Peak	Part Peak	On-Peak
New Rates							
Rate 10	LV	-100	395	8.42			
Rate 10	LV	> 100	395	19.60			
Rate 20	LV		880	16.24			
Rate 40	LV - Std		6,200	5.06	1,587.07		
Rate 40	LV - TOU		6,200	5.06		66.92	698.32
Rate 50	MV - Std		6,200	4.88	1,421.81		
Rate 50	MV - TOU		6,200	4.88		63.40	618.68
Rate 60	LV		2,500	21.50			793.78

2.2. Prepaid Tariff

The approved prepaid rate is **\$12.86/kWh** for the first 100 kWh within a thirty (30) day consumption cycle and **\$20.38/kWh** for each additional kWh thereafter within that thirty (30) day consumption cycle.

3. Bill Impact

Tables 3.1 and 3.2 below (based on the revised data) show the impact of the Office's determined rates and the JPS' proposed rates respectively on total bill for the typical customer in each rate class utilizing data as at February 2014 for comparison with JPS' Tariff Submission.

Table 3.1 Bill Impact of the Office Approved Rates

Customer Class	Overall Bill Impact of the OUR Approved Rates			
	Typical Usage (kWh)	Demand (kVA)	Total Bill Impact (%)	Average Change (%)
RT 10 LV Res. Service < 100 kWh	90	n/a	-1.9%	-0.1%
RT 10 LV Res. Service 100-500 kWh	200	n/a	0.2%	
RT 10 LV Res. Service > 500 kWh	600	n/a	1.4%	
RT 20 LV Gen. Service < 100 kWh	90	n/a	-0.9%	-0.1%
RT 20 LV Gen. Service 100-1000 kWh	1,000	n/a	0.2%	
RT 20 LV Gen. Service 1000-7500 kWh	5,000	n/a	0.3%	
RT 20 LV Gen. Service > 7500 kWh	8,000	n/a	0.3%	
RT 40 LV Power Service (Std)	35,000	100	-0.9%	-2.9%
RT 50 MV Power Service (Std)	500,000	1,500	-0.9%	
RT 50 MV Power Service (TOU(on-peak))	500,000	1,500	-7.0%	
Efficiency Targets:	System Losses Target		JPS Thermal Heat Rate Target	
	19.20%		12,010 kJ/kWh	

Table 3.2 Bill Impact of the JPS Proposed Rates

Customer Class	Overall Bill Impact of the JPS Proposal			
	Typical Usage (kWh)	Demand (kVA)	Total Bill Impact (%)	Average Change (%)
RT 10 LV Res. Service < 100 kWh	90	n/a	11.0%	16.2%
RT 10 LV Res. Service 100-500 kWh	200	n/a	17.4%	
RT 10 LV Res. Service > 500 kWh	600	n/a	20.1%	
RT 20 LV Gen. Service < 100 kWh	90	n/a	13.8%	9.2%
RT 20 LV Gen. Service 100-1000 kWh	1,000	n/a	15.1%	
RT 20 LV Gen. Service 1000-7500 kWh	5,000	n/a	13.0%	
RT 20 LV Gen. Service > 7500 kWh	8,000	n/a	-5.1%	
RT 40 LV Power Service (Std)	35,000	100	-1.3%	-5.2%
RT 50 MV Power Service (Std)	500,000	1,500	-1.9%	
RT 50 MV Power Service (TOU(on-peak))	500,000	1,500	-12.6%	
Efficiency Targets:	System Losses Target		System Heat Rate Target	
	21.50%		10,200 kJ/kWh	

4. Tariff Basket Tables

The OUR has retained the existing tariff structure and the rates based on the revised billing determinant determined by the Office as shown in Table 4.1 below. Tables 4.2 and 4.3 below show the revenue allocation to the respective rate classes. The allocation is based on the existing tariff structure with 23% of costs recovered in fixed revenues and 77% in variable revenues that are approved by the OUR.

Table 4.1 OUR Deemed Test Year Billing Determinants

Class	Block/ Rate Option (kWh)	December 2013 No. Customer	Energy (kWh)	Demand (KVA)			
				Std.	Off-Peak	Part Peak	On-Peak
Rate 10	LV	<100	222,531				
Rate 10	LV	>100	316,070				
Rate 20	LV		62,657				
Rate 40	LV - STD	1,601	645,803,546	2,283,780			
Rate 40	LV - TOU	121	121,303,481		372,224	356,087	285,538
Rate 50	MV -STD	104	411,322,159	855,192			
Rate 50	MV -TOU	27	105,892,695		608,934	593,163	493,174
Rate 60	STREETLIGHTS	236	57,100,727				
Total		603,346	2,979,803,003	3,138,972	981,158	949,250	778,712

Table 4.2 OUR Approved Non- Fuel Tariff Basket Weights

Class	Block/ Rate Option (kWh)	Customer Charge	Energy Charge	Demand Charge				Total	
				Std.	Off-Peak	Part Peak	On-Peak		
Rate 10	LV	≤ 100	2.54089%	10.09663%	0.000%	0.000%	0.000%	0.000%	4.41%
Rate 10	LV	>100	3.60893%	23.03334%	0.000%	0.000%	0.000%	0.000%	41.41%
Rate 20	LV		1.59386%	25.53548%	0.000%	0.000%	0.000%	0.000%	22.88%
Rate 40	LV - Std		0.28693%	7.87169%	8.7310%	0.000%	0.000%	0.000%	15.81%
Rate 40	LV - TOU		0.02169%	1.47857%	0.000%	0.0600%	0.59900%	0.6150%	2.60%
Rate 50	MV - Std		0.01864%	4.83525%	2.92900%	0.000%	0.000%	0.000%	6.90%
Rate 50	MV - TOU		0.00484%	1.24481%	0.000%	0.09300%	0.88400%	0.94300%	3.021%
Rate 60	LV		0.01705%	2.95731%	0.000%	0.000%	0.000%	0.000%	2.98%
TOTAL			8.09%	77.05%	11.66%	0.15%	1.48%	1.56%	100.0%

Table 4.3 Total Non-Fuel Tariff Basket

Class	Block/ Rate Option (kWh)	12 Months Test Year Customer Revenue (J\$)	Energy Revenue (J\$)	Demand (KVA) revenue (J\$)				Total Demand Revenue (J\$)	Total Revenue (J\$)
				Std.	Off-Peak	Part Peak	On-Peak		
Rate 10	LV	≤ 100	1,054,796,940	4,191,406,198	-	-	-	-	5,246,203,138
Rate 10	LV	>100	1,498,171,800	9,561,808,060	-	-	-	-	11,059,979,860
Rate 20	LV		661,657,920	10,600,519,280	-	-	-	-	11,262,177,200
Rate 40	LV - Std		119,114,400	3,267,765,943	3,624,517,296	-	-	3,624,517,296	7,011,397,639
Rate 40	LV - TOU		9,002,400	613,795,614	24,907,919	248,664,055	255,306,166	528,878,140	1,151,676,154
Rate 50	MV - Std		7,737,600	2,007,252,136	1,215,921,562	-	-	1,215,921,562	3,230,911,298
Rate 50	MV - TOU		2,008,800	516,756,352	38,607,274	366,976,668	391,469,455	797,053,397	1,315,818,549
Rate 60	LV		7,080,000	1,227,665,631	-	-	-	-	1,234,745,631
TOTAL		3,359,569,860	31,986,969,214	4,840,438,858	63,515,193	615,640,723	646,775,621	6,166,370,395	41,512,909,469