

Summary of Decisions

Background

Jamaica Public Service Company Limited (JPS), the monopoly supplier of electricity in Jamaica submitted an application for tariff review to the Office of Utilities Regulation (“the Office”) on March 1, 2004, in accordance with the All-Island Electricity Licence 2001, (the Licence). The Licence stipulates that the current Non-Fuel Base Rate tariffs, which are fixed by the Office, expire on May 31, 2004. Further, it requires JPS pursuant to Schedule III paragraph 2 (c) to:

“submit a filing with the Office, no later than March 1, 2004 and thereafter on each succeeding fifth anniversary, with an application for the recalculation of the Non-Fuel Base Rates. The new Non-Fuel Base Rate will become effective ninety (90) days after acceptance of the filing by the Office. This filing shall include an annual non-fuel revenue requirement calculation and specific rate schedules by customer class. The revenue requirement shall be based on a test year in which the new rates will be in effect and shall include efficient non-fuel operating costs, depreciation expenses, taxes, and a fair return on investment. The components of the revenue requirement which are ultimately approved for inclusion will be those which are determined by the Office to be prudently incurred and in conformance with the OUR Act, the Electric Lighting Act and subsequent implementing rules and regulations.”

The Licence requires that the price control for JPS be a Price Cap Regime of the form $dPCI = dI \pm X \pm Q \pm Z$, where:

where

- “dCPI” = annual rate of change in Non-Fuel electricity prices;
- “dI” = the annual growth rate in an inflation and devaluation measure;
- “X” = the offset to inflation (annual real price increase or decrease) resulting from productivity changes in the electricity industry;
- “Q” = the allowed price adjustment to reflect changes in the quality of service provided to the customers; and
- “Z” = the allowed rate of price adjustment for special reasons not captured by the other elements of the formula.

In 2001, when this regime was introduced “X” and “Q” were set at zero.

The objective of this tariff review is to utilize the regulatory framework to provide incentives for the company to achieve increasing efficiency. The review of JPS’ submission is therefore based on three primary objectives:

- the need to keep electricity costs down;
- the need for continued improvement in the service provided by JPS; and
- to provide the opportunity for JPS to earn reasonable returns on its investment while at the same time being able to finance the operations of the business.

Under this regime, caps on tariffs will be set for a five-year period (2004 – 2009). Specifically, tariffs are set in the first year, based on the revenue requirement of the company. Going forward, these tariffs will be adjusted for:

- inflation and exchange rate movements;
- expected efficiency gains based on differentials in productivity trends between JPS as well as the United States and Jamaican economies; and
- a bonus or penalty based on JPS’ performance on selected quality of service parameters.

The success of a price cap regime depends critically on the regulator providing incentives for the company to operate as efficiently as possible. In these arrangements it is important that JPS be allowed to retain the benefits of any gains over and above those which were targeted for the period. Hence, it is important that the performance targets that are set for JPS are not only established at the start of the price-cap period but that no unexpected adjustments are made during the period.

It is against this background and pursuant to its duties under the Licence that the Office makes the decisions set out hereunder:

DECISION IS HEREBY TAKEN that for the period June 1, 2004 to May 31, 2009:

1. With effect from June 1, 2004 the average Non-Fuel revenue to be recovered from customers by JPS is J\$5.627/kWh. This is calculated from the following:
 - Non-Fuel Revenue requirement estimated at J\$17.31 billion to finance JPS operational expenses, depreciation and amortization and to realize a reasonable return on investment for the “test year”.
 - Forecasted Sales Demand of 3,075,800 MWh for 2004 (being 4% over 2003); and

- A base Exchange Rate of US\$1 = J\$61
2. JPS' return on investment as measured by the Post-tax weighted average cost of capital (WACC) is estimated at 12.00%. This is made up of the following components:
 - JPS weighted Cost of debt of 12.56%
 - OUR determined Real Cost of Equity of 14.85%
 - Gearing of 44%
 - A tax rate of 33.1/3%

The Office is of the view that a gearing of 48% is appropriate for JPS and it therefore expects JPS to achieve this level by 2009.

3. The value of the "Test year" rate base is J\$35.01 billion
4. The expected productivity efficiency gains for JPS (X-factor) is 2.72%. The X-factor will be applied at the 2006 adjustment.
5. The Q-factor remains at zero until June 2005 when the data on forced outages at both the feeder and sub-feeder levels will have been collected, audited and analysed. Baseline data on System average interruption duration index (SAIDI)¹, the System average interruption frequency index (SAIFI)² and Customer average interruption duration index (CAIDI)³ will then be available at that time in order that the Q-factor can be applied at that date. Should JPS not provide the supporting data, the Office will apply international benchmarks to inform the derivation of 'Q' with effect from June 2005.
6. In activating the Z-factor, Government imposed obligations shall be deemed to be material only if the annual incremental costs or savings to JPS that result therefrom amount to at least \$13 million adjusted annually for Jamaican inflation.
7. The price cap will be applied on a global basis. Specifically, the annual adjustment factor (1+dPCI) will be applied to the tariff basket instead of each individual tariff. The adjustment in each tariff will be

¹ This index is commonly referred to as customer minutes of interruption or customer hours, and is designed to provide information about the average time the customers are interrupted.

² This index is designed to give information about the average frequency of sustained interruptions per customer over a pre-defined area.

³ This index represents the average time required to restore service to the average customer per sustained interruption.

weighted by an associated quantity for each element. The weighted average increase of the tariff basket must not exceed the price adjustment factor (1+dPCI).

8. The inflation adjustment formula (dl) to be used during the 2004 - 2009 tariff period, has been changed to more accurately reflect the inflation costs incurred on JPS. The base Non-Fuel tariffs shall be adjusted annually, as follows:

$$b_1 = b_0 [1 + dl]$$

$$dl = [0.76 * \Delta e + 0.76 * 0.922 * \Delta e * i_{US} + 0.76 * 0.922 * i_{US} + 0.24 * i_j]$$

b_0 = Base non-fuel tariff at time period $t = 0$

b_1 = Base non-fuel tariff at time period $t = 1$

Δe = Change in the Base Exchange rate

i_{US} = US inflation rate (as defined in the licence)

i_j = Jamaican inflation rate (as defined in the licence)

f_{US} = US factor = 0.76

f_i = Local (Jamaica) factor = 0.24

9. The actual fuel cost will be passed through in the fuel charge with efficiency modifications for heat rate and system losses.
10. The billing heat rate target shall be set at 11,200 kJ/kWh for the 5-year price cap period.
11. System losses target will remain at 15.8% to be used in the derivation of fuel rates over the five year period. That is, the deemed sales for the calculation of the fuel rate is Net Generation less 15.8%.
12. JPS shall apply separate fuel and Non-Fuel foreign exchange adjustment mechanisms as follows:
 - Conversion of the fuel rates from United States currency to Jamaican currency using prevailing billing exchange rate ; and
 - Apply a foreign exchange formula to the Non-Fuel base tariff only, using –

$$\text{Tariff}_m = \text{Tariff}_b \times [1 + 0.76 \times (\text{EXC}_{m-1} - \text{EXC}_b) / \text{EXC}_b]$$

where:

Tariff_m = Adjusted tariff for the month

Tariff_b = Unadjusted tariff for the month calculated on Non-Fuel base rates.

EXC_b = Base Exchange rate for Jamaican Dollars into United States Dollars

EXC_{m-1} = Billing Exchange Rate

13. The actual Independent Power Producers (IPPs) costs shall be recovered as a pass-through on customers' bills by using the following methodology:

- Estimated base fixed Non-Fuel IPP costs shall be embedded in the demand charge and energy charges. These costs shall be estimated based on billed invoice level of capacity. JPS shall submit its methodology for allocating IPP cost to the Office for approval.
- A computation shall be done on a monthly basis to determine whether the actual base charges deviate from the estimated base charges.
- The surplus or deficit shall be returned or recovered over the kWhs billed.

14. All low voltage customers above 25kVA shall be grouped together into a new Rate 40 grouping and all medium voltage customers above 25 kVA shall be grouped as Rate 50. This will result in a simpler rate structure.

15. For the purposes of Time-of-Use billing, the following period shall be used:

On Peak Period: Monday – Friday: 6:00 p.m. to 10:00 p.m.

Partial Peak Period: Monday – Friday: 6:00 a.m. to 6:00 p.m.

Weekends and public holidays: 6:00 p.m. to 10:00 p.m.

Off Peak Period: Monday – Friday: 10:00 p.m. to 6:00 a.m.
Weekends and public holidays (all except 6:00 p.m. to 10:00 p.m.)

16. The Time of Use (TOU) rate design shall be as follows:

- The On Peak billing demand shall remain unchanged.

- The partial peak billing demand shall be set as the maximum registered demand for the combined partial peak and on peak hours of that month, or 80% of the highest maximum demand for the partial and on peak hours during the six-month period ending with the month for which the bill is rendered, whichever is higher.
 - The Off Peak billing demand shall remain unchanged.
17. The reconnection fee applicable to all customers shall be \$1,441 to reflect the actual cost incurred for each reconnection.
18. The under-mentioned five (5) new guaranteed standards become effective on September 1, 2004:
- **EGS 7 - Frequency of Meter Reading** - JPS shall not render three (3) or more consecutive estimated bills (where it has access to the meter). JPS has committed to phase out estimated bills within two years. Effective September 2006 this Standard will be changed to not more than two (2) consecutive estimated bills.
 - **EGS 8 - Estimation of Consumption** - An estimated bill must be based on the average of the last three (3) actual readings (first 2 bills of a new account excepted).
 - **EGS 9 - Meter Replacement** – JPS shall replace a meter found to be faulty within 20 working days.
 - **EGS 10 - Billing Adjustments** - JPS shall adjust a customer's account within one billing period of identification of an error.
 - **EGS 11 - Street Lighting Maintenance** - JPS shall repair each reported street light failure (as reported by the responsible local authority) within 14 days of receiving the report. [This standard will be implemented on September 1, 2004 on condition that the Office is satisfied that JPS and the local authorities have agreed on a protocol that will govern the arrangements between the parties. If asked, the Office would agree to broker the terms of such a protocol].

The full schedule of the Guaranteed Standards that will be in effect under this tariff is provided at Table D.2.

19. The under-mentioned four (4) new Overall Standards will become effective as indicated below:

- **EOS4A – Customer Average Interruption Duration Index (CAIDI)** - average time to restore service to average customers per sustained interruption will be set June 1, 2005.
- **EOS10 - Responsiveness of Call Centre Representatives** - 90% of phone calls to the call centre are to be answered within 15 seconds. This becomes effective on July 1, 2004.
- **EOS11 - Effectiveness of Call Centre Representatives** - a target will be set on June 1, 2005 specifying the percentage of complaints registered through the Call Centre that should be resolved as the first point of contact. (Monitoring of this standard will commence as of June 2005).
- **EOS12 - Effectiveness of Street Lighting Maintenance** - 99% of all street lighting complaints must be addressed and corrected within 14 days. This becomes effective July 1, 2004.

The full schedule of Overall Standards that will be in effect under this tariff is provided at Table D.3.

20. JPS shall complete the implementation of a policy over the next 24 months, i.e. by May 31, 2006, to return security deposits to good-paying customers. A good-paying customer is defined as one who has a record of paying electricity bills in full on every occasion that the bill is rendered on or before the due date for a continuous period of 24 months.
21. Compensation for breach of any of the guaranteed standards will be as follows:

Customer Class	Compensation
Domestic	
Rate 10 – Residential Service	\$1,000
General Service	
Rate 20 – General service	\$1,000
Power Service	
Rate 40 – Power Service Rate 40A – Power Service Rate 50 – Large Power	\$8,400

Rate 60	Street Lighting \$300 per lamp/month
---------	--

EFFECTIVE DATE OF DECISION JUNE 1, 2004

BY ORDER OF THE OFFICE

SIGNED THIS 31st DAY OF MAY, 2004

**J. PAUL MORGAN
DIRECTOR GENERAL**

The approved Non-Fuel base rates for 2004 are summarized at Table D.1

Table D.1:
Approved Tariffs for 2004

Rate Class		Rate Option	Customer Charge	Energy Charge (J\$/kWh)	Demand-J\$/KVA			
					Std.	Off-Peak	Part Peak	On-Peak
Rate 10	LV	Lifeline Non	68	4.549	-	-	-	-
Rate 10	LV	Lifeline	68	8.008	-	-	-	-
Rate 20	LV		150	6.770	-	-	-	-
Rate 40A	LV	STD	2,100	4.250	276	-	-	-
Rate 40	LV	STD	2,100	1.728	707	-	-	-
Rate 40	LV	TOU	2,100	1.728	-	29	308	394
Rate 50	MV	STD	2,100	1.556	636	-	-	-
Rate 50	MV	TOU	2,100	1.556	-	26	277	355
Rate 60	LV		550	8.161	-	-	-	-
Standby Tariff (Reserve Capacity Charge):					60			

Table D2
Guaranteed Service Standards 2004 -2009

Code	Focus	Description	Performance Measure
EGS 1(a)	Access	Connection to Supply - New Installations	New service Installations within 5 working days.
EGS 1(b)	Access	Connection to Supply - Simple Connections	Connections within 4 working days where supply and meter already on premises
EGS 2(a)	Access	Complex Connection to supply	Between 30 and 100m of existing distribution line
			i- estimate within 10 working days
			ii- connection within 30 working days after payment
EGS 2(b)	Access	Complex Connection to supply	Between 101 and 250m of existing distribution line
			i- estimate within 15 working days
			ii- connection within 40 working days after payment
EGS 3	Response to Emergency	Response to Emergency	Response to Emergency calls within 6 hours
EGS 4	Billing Punctuality	Issue of First bill	Produce and dispatch first bill within 45 working days after service connection
EGS 5(a)	Complaints/Queries	Acknowledgements	acknowledge written queries within 5 working days
EGS 5(b)	Complaints/Queries	Investigations	complete investigation within 30 working days
EGS 5(c)	Complaints/Queries	Investigations involving 3rd party	complete investigation within 60 working days if 3rd party involved
EGS 6(a)	Reconnection	Reconnection after Payments of Overdue amounts - urban areas	Urban reconnection within 1 day
EGS 6(b)	Reconnection	Reconnection after Payments of Overdue amounts - rural areas	Rural - reconnection within 2 days
EGS 7	Estimated Bills	Frequency of Meter reading	Should not be three (3) or more consecutive estimated bills (where company has access to meter). This changes to two (2) on September 1, 2006.
EGS 8	Estimation of Consumption	Method of estimating consumption	An estimated bill should be based on the average of the last three (3) actual readings (first 2 bills of new accounts excepted)
EGS 9	Meter Replacement	Timeliness of Meter Replacement	Maximum of 20 business days to replace meter after detection of fault
EGS 10	Billing Adjustments	Timeliness of adjustment to customer's account	Where necessary, customer must be billed for adjustment within one (1) billing period of identification of error
EGS 11	Street Lighting Maintenance	Timeliness of repairs of street lights	Reported street lights failures must be repaired within 14 days. (Reports to be made by Local Authorities)
EGS12	Compensation	Making compensatory payments	Response to claim for compensation within 45 days of verification of breach

Table D3
Overall Standards (2004-2009)

Code	Standard	Units	Targets June 04 – May 09 (inclusive)
EOS1	Minimum of 48 hours prior notice of planned outages	Percentage of planned outages for which at least forty-eight hours advance notice is provided	100%
EOS2	Percentage of line faults repaired within a specified period of that fault being reported	Urban – 48 hrs Rural – 96 hrs	100% 100%
EOS3	System Average Interruption Frequency Index (SAIFI)	Frequency of interruptions in service	To be set June 2005
EOS4	System Average Interruption Duration Index (SAIDI)	Duration of interruptions in service	To be set June 2005
EOS4A	Customer Average Interruption Duration Index	Average time to restore service to average customers per sustained interruption	To be set June 2005
EOS5	Total system losses (difference between energy generated and energy for which revenue is received)	System losses as a percentage of total energy delivered to customers	15.8%
EOS6	Frequency of meter reading	Percentage of meters read within time specified in the licensee's billing cycle (currently monthly for non-domestic customers and bi-monthly for domestic customers)	99%
EOS7 (a)	Frequency of meter testing	Percentage of rates 40 and 50 meter tested for accuracy annually	50%
EOS7 (b)	Frequency of meter testing	Percentage of other rate categories of customers meters tested for accuracy annually	15%
EOS8	Billing Punctuality	98% of all bills to be mailed within specified time after meter is read	5 working days
EOS9	Restoration of service after unplanned (forced) outages on the distribution system	Percentage of customer's supplies to be restored within 24 hours of forced outages in both Rural and Urban areas	98%
EOS10	Responsiveness of call center representatives	Percentage of calls answered within 15 seconds	90%
EOS11	Effectiveness of call center representatives	Percentage of complaints resolved at first point of contact	To be set June 2005
EOS 12	Effectiveness of street lighting repairs	Percentage of all street lighting complaints resolved within 14 days	99%

Table D4:

Estimated impact of OUR determined Non-Fuel Tariffs on customer bills based on March 2004 billing

Rate class	Current Rates (@ 11,600 kJ/kWh)	Proposed rates (@ 11,200 kJ/kWh)	Variance	Variance
Rate 10 Life Line customer (99kWh/month)	1,047	1,031	-16	-1.51%
Rate 10 typical customer (250kWh/month)	2,836	3,019	182	6.43%
Rate 10 typical (high energy) customer (750kWh/month)	8,769	9,613	844	9.62%
Rate 20 typical customer (1000kWh/month)	10,824	12,099	1,275	11.78%
Rate 40A average customer (10,933 kWh/month and 85 kVA/month)	119,633	129,127	9,494	7.94%
Rate 40 STD average customer (\$)				
-40 LV (35,128 kWh/month and 114 kVA/month)	301,777	325,513	23,736	7.87%
-50 LV (264,172 kWh/month and 795 kVA/month)	2,261,141	2,388,687	127,547	5.64%
Rate 40 TOU average customer				
-40 LV (76,336 kWh/month and 193 kVA/month)	596,593	659,369	62,776	10.52%
-50 LV (181,811kWh/month and 586 kVA/month)	1,470,114	1,584,990	114,876	7.81%
Rate 50 STD average customer				
-40 MV (91,778 kWh/month and 322 kVA/month)	795,413	824,698	29,285	3.68%
-50 MV (493,323 kWh/month and 1,359 kVA/month)	4,064,386	4,188,427	124,041	3.05%
Rate 50 TOU average customer				
-40 MV (124,077 kWh/month and 365 kVA/month)	997,028	1,058,571	61,543	6.17%
-50 MV (462,001 kWh/month and 1,302 kVA/month)	3,723,760	3,880,576	156,815	4.21%