Office of Utilities Regulation

Jamaica Public Service Company Limited
Tropical Storm Gustav Compensation

Determination Notice

OFFICE OF UTILITIES REGULATION

February 9, 2011

DOCUMENT TITLE AND APPROVAL PAGE

1. DOCUMENT NUMBER: ELE2010012_ DET 006

2. DOCUMENT TITLE: Jamaica Public Service Company Limited – Tropical Storm Gustav Compensation Determination Notice

3. PURPOSE OF DOCUMENT

This document sets out the Office's decisions on issues related to the claim for compensation by the Jamaica Public Service Company Limited for recovery of losses suffered as a result of Tropical Storm Gustav which affected its Transmission and Distribution System in August 2008.

4. APPROVAL

This Document is approved by the Office of Utilities Regulation and the Determinations therein become effective on **February 10, 2011**.

On behalf of the Office:

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Ahmad Zia Mian
Director General

Date: February 9, 2011

Abstract

In August 2008, Tropical Storm Gustav struck Jamaica. The storm made landfall in the east of the Island and followed the southern coastline causing damage to the overhead transmission and distribution network of the Jamaica Public Service Company Limited (JPS or the Company).

While it was not necessary for the utility company to shut down the national grid, the heavy rain and strong winds resulted in the loss of supply to approximately 80% of customers. Six (6) days after the event 97% of customers were receiving electricity and there was full restoration in twelve (12) days.

On December 30, 2008 JPS submitted a claim for compensation in relation to the damage suffered and income lost as a result of the tropical storm. The claim was made under the Z-factor provision of the **All-Island Electric Licence, 2001**.

The claim was for J$256.2 million and included sub-claims for: (i) hurricane restoration costs, (ii) loss of revenue referred to in the JPS claim submission as "fixed costs recovery" and (iii) the opportunity costs of capital associated with the restoration effort and revenue losses.

The OUR directed the Company to provide a report from its auditors verifying its claim in order to determine the compensation that should be paid. A satisfactory verification report prepared by Ernst & Young was received from JPS in December 2009. In the treatment of the JPS claim, the OUR determined that it should have been filed against the Electricity Disaster Fund rather than under the Z-factor provision. This document sets out the Office's determination and provides the rationale for the decisions taken.

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1.0 Background

Tropical Storm Gustav made landfall on the eastern tip of Jamaica on the afternoon of August 28, 2008. It then followed the southern coastline of the country churning winds of 65 to 70 miles per hour before taking a northwesterly path towards Cuba the following morning.

The strong winds and heavy rains which accompanied the storm caused significant damage to the Jamaica Public Service Company Limited's (JPS or the Company) Transmission and Distribution (T&D) network. Some 80% of the Company's customers lost service, primarily in the eastern and southern parishes. In keeping with the provisions of the All-Island Electric Licence, 2001**(the Licence)**, the OUR in response to a request by JPS declared a seven-day period of force majeure. Consequently, the application of the Overall and Guaranteed Standards were suspended until September 4, 2008.

JPS was able to restore service to most customers in a relatively short period. An estimated 97% of customers had service within six (6) days of the passage of the storm. Because of the nature of the damage in a number of areas, particularly in the eastern parishes, it took a total of twelve (12) days after the event for the Company to achieve full restoration.

JPS submitted a Z-factor Adjustment claim for compensation in relation to the storm on December 30, 2008. The Company sought compensation for restoration costs, revenue losses (referred to as 'fixed costs recovery' in JPS' claim) and the opportunity costs of capital. The total claim amounted to approximatelyJ$256.2 million (Table 1.1).

Table 1.1 Summary of JPS' Claim

Category of Claim	J$'000
Hurricane restoration costs	141,257
Loss of Revenue	103,692
Opportunity cost of capital	11,230
TOTAL	**256,179**

The OUR had initially invited bids from Loss Adjusters to assess JPS' claim. It was however deemed more prudent to abandon this approach in favour of the certification of the costs by the company's auditors. This decision was taken because proposed fees submitted by bidders to conduct the loss adjustment exercise represented a significant proportion of the total claim submitted by JPS. Negotiations to reduce the fees to an acceptable level with the potential consultant also proved futile. As such, consistent with the discretion accorded to the OUR under the rules governing the Electricity Disaster Fund (EDF or the Fund), the OUR issued instructions to JPS on May 20, 2009 to provide certification by its auditors of the costs incurred.

By way of the said communication, the OUR also approved the withdrawal of US$950,635 from the EDF as an advance on the compensation payment due in relation to the tropical storm. This advance was aimed at alleviating the Company's cash flow challenges arising from expenditures made in the restoration of service. It also had the benefit of reducing the opportunity cost payment that would ultimately be due from the EDF.

On July 31, 2009 JPS submitted the requested report from its auditors Ernst & Young. Five (5) days later the OUR rejected the report on the grounds that it could not be used to certify the claim as it was deemed imprecise, incomplete and sub-standard.

A revised Ernst & Young report was received by the OUR on December 21, 2009. The revised report was deemed acceptable and constitutes the basis upon which this Determination has been made.

2.0 Interpretation of the Z-Factor

The EDF had its genesis in JPS' inability to secure traditional insurance coverage for its T&D assets at reasonable premiums. The increase in frequency and intensity of tropical cyclones in the Caribbean, as far back as the early 1990's, caused insurers to designate the Caribbean as a high risk area.

Against this backdrop, the OUR granted approval to the JPS for the establishment of the EDF in June 2004[1]. The Fund is designed to provide some degree of indemnity to the Company's T&D assets against damage caused by natural disasters. Given the existence of this facility, it is expected that claims for damage or loss suffered in events

[1] Similar Funds exist in Florida and Barbados.

such as Tropical Storm Gustav would be filed against the EDF. JPS however, opted to file its claim under the Z-factor provision of the **All-Island Electric Licence, 2001.**

As indicated in previous hurricane claim determinations and as specified under Schedule 3 of the **Licence,** the Z-factor price escalator is a component of the Performance-Based Rate Making Mechanism (PBRM) which is applicable under special circumstances. The Z-factor should be invoked when an event has occurred for which all of the following three conditions are satisfied as prescribed by the Licence, namely:

1. the Licensee's costs are affected;
2. the event is not due to managerial decisions; and
3. the costs are not captured by the other elements of the price cap mechanism.

While tropical storms and hurricanes are 'acts of God' and as such are outside of management's control, by virtue of the fact that the EDF has been established, there is a provision within the price cap mechanism to address such contingencies.

The **Electricity Disaster Fund Rules of Procedure (2008)** ("2008 Rules") and the **Amendments to the Electricity Disaster Fund Rules of Procedure (2009) Determination Notice,** ("Amended Rules, 2009") and (together called the "Rules of the EDF") provide that although the Z-factor is intended to capture the effects of exogenous variables that may materially affect the cost to JPS, for the reasons set out therein, disaster expenditures adequately captured in the PBRM are not contemplated as items to be treated under the Z-factor provision.

The 2008 Rules in its treatment of the Z- factor provides,

> *"In light of the fact that partial or full compensation for a natural catastrophe may not be available from the Fund and pursuant to Schedule 3 of the All-Island Electricity Licence, 2001, the Office may invoke the Z-factor provision to cover a part or the entire cost of the compensation depending on the amount available in the Fund."*[2]

In addition, "*the Electricity Disaster Fund has been established as a substitute for traditional insurance which is no longer available to JPS at affordable premiums. As*

[2] Part I, Section 1.14.1, Page 18, 2008 Rules

such, except under the circumstances specified in the Electricity Disaster Fund Rules, the Z-factor cannot be used to meet expenses originating from disasters."[3]

Thus claims associated with tropical cyclones ought properly to be filed and considered against the Fund.

Pursuant to the Rules of the EDF, it is only when the accumulated balance in the Fund is unable to cover the compensation due to JPS, and where other satisfactory vehicles for compensation are unavailable that the Office will consider it prudent to resort to the Z-factor provision. Furthermore, even if the balance in the Fund is below the total amount being claimed, the JPS Claim should still be filed against the Fund since the rules governing the Fund clearly address the procedures applicable when there is such a shortfall.

Consequently, based on the principles governing the Z-factor Clause of the **Licence,** and the Rules upon which the EDF is based, the OUR cannot consider JPS' claim under the Z-factor provision. Notwithstanding, the OUR has treated the claim as if it were filed pursuant to the EDF.

3.0 Restoration Costs

JPS' claim for restoration cost amounted to J$141,257,000 of which 82.3% was attributed to distribution expenditure. The claim also included J$7,017,000 of generation expense and the KPMG audit fee of J$1,990,000 incurred in relation to the 2005 hurricanes[4] (see Table 3.1).

Table 3.1 JPS Restoration Cost (Claim) by Functions

Cost Category	JPS Claim (J$'000)	Ernst & Young Certified (J$'000)	OUR Approved (J$'000)	Difference (J$'000)
Generation	7,017	7,017	-	**(7,017)**
Transmission	3,027	3,027	3,027	-
Distribution	116,223	116,223	116,223	-
Other Customer Ops/Admin	14,990	9,191	8,961	**(6,029)**
Total	**141,257**	**135,458**	**128,211**	**(13,046)**

[3] Section 2.5 (2.), page 8

[4] Hurricanes Dennis, Emily and Wilma.

According to the Rules of the EDF "Restoration cost" means -

> *"expenditure made by JPS to restore its T&D system to the state it was in immediately before a disaster, provided such expenditures were made in the most efficient manner. All restoration costs must be approved for compensation as it is subject to deductibles and an incremental cost treatment."*[5]

Further, in arriving at a determination on the amount of restoration cost for which JPS should receive compensation, the OUR is obliged to consider and apply the guidelines stipulated for the processing, verification and assessment of claims.

The OUR has accepted the auditor's verification of the cost. However, in arriving at the compensation payable the following adjustments were made to the original claim for restoration cost:

1. **The generation cost of J$7,017,000 was disallowed**. The EDF was established exclusively to address damage to the T&D system caused by natural disasters. The T&D system does not include equipment or plant employed in power generation, general administration or customer service.[6] In this regard, generation expenditure does not qualify as a claimable cost from the Fund.

2. **Other Customer Operations/Administration cost was reduced by J$6,029,000.** The costs in the claim under Other Customer Operations/Administration category are, in most part, related to additional security services, external cleaning services and the labour employed to remove and replace fallen cables. As such they are accepted as T&D expenses. The **J$6,029,000** adjustment in this cost category is explained by the following factors:

    - a J$5,799,000 reduction of the cost by Ernst & Young in their review;
    - the removal of the 2005 Hurricanes[7] audit fee of J$1,990,000 because this cost was associated with previous hurricanes and would not qualify as a claimable expense for Tropical Storm Gustav. The OUR does not consider this cost to be unreasonable, but is of the view that given the time the cost was incurred (2008) it should have been submitted earlier and as an item

[5] Page 6, 2008 Rules

[6] Part I, Section 1.2, page 14, 2008 Rules

[7] Three (3) hurricanes occurred in 2005 - Dennis, Emily and Wilma.

independent of the Tropical Storm Gustav claim. It is in this respect, the OUR has excluded it from the allowable restoration cost for Tropical Storm Gustav to which an opportunity cost is applicable.

- the addition of the Ernst & Young fee of J$1,760,000 to the expense, since this cost is claimable under the prevailing rules governing the Fund.

In light of the adjustments made to generation and customer operation/administration cost categories, **the OUR has determined that the gross amount allowed for restoration cost is J$128,211,000.**

4.0 Deductible Adjustments

Tropical Storm Gustav occurred on August 28, 2008, twenty seven days after the EDF Rules became effective. The new Rules required that a 0.5% deductible of the net book value of JPS T&D assets be applied to all claims submitted by company. JPS however challenged the introduction of the deductible on the grounds that, among other things, it was 'excessive'. The OUR reviewed the Rule and after careful consideration of the issue amended the Rules on February 2, 2009.

The amendment provides for a 0.25% deductible applicable to the first claim submitted in any calendar year. This was predicated on the basis that the reporting requirements and the level of monitoring prescribed by the Rules significantly mitigate the risk associated with moral hazards.

A strict application of the Rules in effect at the time of the submission of the claim would require the application of a 0.5% deductible. However, by virtue of the fact that the amendment to the Rules was being contemplated even before the submission of the claim and given that the 0.5% deductible was adjudged to be high when assessed against the overall framework of the Rules, the Office considered it reasonable that the 0.25% deductible be applied to the claim.

Based on JPS' Audited Financial Statements the net book value of its T&D assets at the beginning of 2008 was US$243,454,000. Given that the applicable deductible rate is 0.25% the allowed restoration cost was reduced by US$608,635. This amount translates to J$43,864,324 at JPS' August 2008 Billing Exchange Rate of US$1: J$72.07. Therefore **the net amount payable from the Fund for restoration costs is J$84,346,676.**

5.0 Revenue Losses

JPS submitted a Claim for J$103,692,000 for revenue losses in relation to Tropical Storm Gustav. In its Claim it refers to this as 'fixed cost recovery'. In rationalizing the use of the term 'fixed cost recovery' JPS argued that this component of the claim is in relation to "*appropriate embedded costs in the non-fuel revenue requirement which were under-recovered in the energy sales*"[8]. JPS further indicated that while it is "*cognizant of the normal sales risks it faces in its ability to recover operating costs, it ought not to be penalized for energy sales that are not realized as a direct result of a natural disaster, where it is agreed, that there is no insurance to mitigate this risk*".[9]

It is evident from JPS' calculation of its 'fixed cost recovery' claim[10] that what was actually computed was an estimate of the shortfall in its energy revenue. However, there is no scope in the EDF for the recovery of revenue and the Rules of the Fund are clear with respect to the elements of cost to which compensation is applicable. According to the Rules:

a) *The Electricity Disaster Fund shall only be employed to make compensation for damage to JPS' T&D system caused by natural disasters.*

b) *T&D system referred to in these Rules encompasses utility poles with attachments including conductors, transformers, insulators, substations along with protective devices and monitoring equipment, for overhead and underground installations, owned by the utility and are actively engaged in the movement of electric power from generating stations to consumers. The transmission and distribution system does not include equipment or plant employed in power generation, general administration or customer service.*

Further, it cannot be compensated under the Z-factor Clause because in the first place, it is not permitted by the regulatory framework under which JPS operates. Conditions 1 and 3 of the Z-factor Clause, clearly state that this price adjustment mechanism should only be invoked if the event in question is of such that the *"Licensee's costs are affected"* and expenses included in the claim are for items for which *"the costs are not captured by the other elements of the price cap mechanism"*. It therefore follows that the so-called 'fixed cost recovery' component of JPS' claim is actually the revenue shortfall the Company experienced as a result of the storm and not a cost it does not qualify for as an item recoverable under the Z-factor.

[8] Paragraph 2.3.2, page 6 of JPS' claim
[9] Paragraph 2.2.2, page 6 of JPS's claim
[10] Paragraph 2.3.2, page 8 of JPS's claim

Secondly, there is regulatory precedence for this treatment of revenues – notably, in Florida where compensation under the storm-reserve surcharge (the equivalent of the Z-factor) is for restoration costs associated with the T&D network.

Thirdly, denying this component of the compensation is consistent with one of the main objectives of regulating a monopoly. In regulating a monopoly the regulator should, as best as possible, create an environment that approximates competitive markets. In a competitive market, the firm cannot simply raise its price to capture the revenue loss sustained because of a hurricane, because if it does it will lose customers to its competitors. Hence, it is forced to be creative and efficient since consumers have choices.

Fourthly, 'guaranteeing revenues for energy not generated by the utility because of a tropical cyclone creates a perverse incentive for the inefficient restoration of service. In other words, if the utility is assured of its revenues regardless of what time service is returned to customers it does not provide the required profit motive for speedy restoration.

Finally, it would not be fair for customers to pay for a service they did not get during a tropical cyclone. Consider a small business man who is a Rate 40 customer. In the aftermath of the hurricane he may have lost revenues because of the lull in economic activities; he may also have to use an expensive stand-by generator to keep his business going at the most basic level; the profitability of his business is reduced – yet he is forced by the only supplier of electricity pay for energy he did not consume. Clearly, this would be unjust.

As such the entire sum of J$103,692,000 sought for revenue loss has been disallowed.

6.0 Opportunity Cost of Capital

The rules of the EDF provide that JPS should be compensated for the opportunity costs associated with the funds used to restore service.[11]

JPS' claim for the opportunity cost of capital is reasonable, since the money spent in the restoration of service could have been otherwise employed by the utility to generate income. In this context, the OUR accepts, in principle, that compensation payment should be made to the Company and calculated its value on the basis of the approved net restoration cost of J$84,346,676[12] or US$1,170,344.

The following are the assumptions used in the calculation:

- The approved restoration cost of J$84,346,676 was converted to US$ by applying the US$1: J$72.07 billing exchange rate that JPS used for the month of August 2008.

- Consistent with JPS' proposal an interest rate of 11% per annum (compounded monthly on the principal) was applied. The interest rate was based on the weighted average cost of all of the JPS' debt as at December 31, 2007. This rate reflects the opportunity cost since it represents the overall cost of borrowing for JPS at the time of the hurricane.

- Interest was allowed to accrue on the net restoration cost US$1,170,344 for the nine (9) month period September 2008 to May 2009.

- An advance of US$950,635 was provided on the compensation to JPS at the end of May 2009. Consequently the interest was thereafter calculated on the remaining balance payable after the advance was deducted (i.e. US$319,879).

- Interest was calculated for the months of June and July 2009. However, the OUR stopped the clock associated with the interest computation at the end of July, because the report from Ernst & Young verifying the JPS claim was deemed inadequate.

[11] Section 3.0, page 9, Amended Rules, 2009

[12] At the JPS' August 2008 billing exchange rate of US$1:J$72.07

- The clock was restarted at the beginning of January 2010 after the OUR accepted the revised report from JPS' auditors which was submitted in late December 2009. As such, the 11% interest rate was applied for an additional thirteen (13) months ending in January 2011.

Consequently, **the opportunity cost associated with JPS' claim has been determined to be US$147,091 or J$12,641,029**[13].

7.0 Audit Fee for the 2005 Hurricanes

While the OUR believes that the audit fee associated with the 2005 hurricanes should not be included in the Tropical Storm Gustav restoration cost, it is a legitimate hurricane expense. As such, the OUR has determined that in addition to the compensation associated with Tropical Storm Gustav JPS shall be paid the KPMG audit fee of J$1,990,000 or US$27,612[14].

8.0 Summary of Compensation

The Office has determined that JPS be allowed total compensation of J$113.2 million (or US$1,317,435) of its J$256.2 million claim submitted in relation to Tropical Storm Gustav. This represents approximately 44% of the original Claim submitted by JPS. Table 8.1 below summarizes JPS' Claim and the approved compensation.

Given that JPS in May 2009 received an advance of US$950,635 from the Fund, the net compensation due to the Company is J$31.523 million (or US$366,800).

[13] Based on the exchange rate data in the Bank of Jamaica Foreign Exchange Trading Summary for Jan 4, 2011. The foreign exchange rate was US$1:J$85.94

[14] At the JPS' August 2008 billing exchange rate of US$1:J$72.07

Table 8.1 JPS Claim and the Approved Compensation

Category of Claim	Foreign Exch. Rate US$1:J$	JPS claim J$'000	Compensation from the Fund J$'000	Compensation from the Fund US$
Hurricane restoration costs	72.07	141,257	84,347	1,170,344
Loss of Revenue	72.07	103,692	-	-
Opportunity Costs of Capital	72.07	11,230	10, 601	147, 091
Total - Gustav	**72.07**	**256,179**	**94,948**	**1,317,435**
Total Compensation-Gustav	**86.12**		**113,220**	**1,317,435**
Advance	86.12			-950,635
Net Compensation - Gustav	**86.12**		**31,623**	**366,800**
Hurricane 2005 Audit Fee	**72.07**	**1,990**	**1,990**	**27,612**
Compensation Payable				**394,412**

9.0 Determination

In respect of the claim made by JPS to recover J$256.2 million under the Z-component of the PBRM mechanism in relation to damage caused directly and indirectly to its system and operations by Tropical Storm Gustav, the Office has determined that:

1. The claim should correctly have been made against the EDF rather than the Z-factor Clause.

2. Of the J$141.3 million restoration cost claim, J$7.0 million represents generation costs and was therefore disallowed, because the Fund was established to deal exclusively with T&D expenditures.

3. The non-generation component of the restoration claim amounting to J$134.2 million was deemed to be consistent with the OUR's interpretation of T&D expenditure. Of this amount J$6.0 million was disallowed, leaving J$128.2 million because:

a. the auditors did not verify J$5.8 million of the non-generation cost in JPS' claim;

b. the claim for J$2.0 million as the (KPMG) audit fees in relation to the 2005 Hurricanes was excluded; and

c. the (Ernst & Young) auditor's fee of J$1.8 million not included in the original claim was added to the compensation payment.

4. The allowed restoration cost of J$128.2 million had to be further adjusted by J$43.9 million as a deductible charge valued at 0.25% of the Company's net T&D assets at the beginning of 2008. As such, the Office has approved an overall restoration cost of J$84.3 million or US$1,170,344[15].

5. The component of the claim for revenue losses of J$103.7 million is invalid under the EDF, as well as the Z-factor provision of the **Licence,** and therefore not recoverable.

6. In principle, the opportunity cost associated with the restoration effort is claimable. As such, an 11% cost of debt was applied to the approved restoration compensation of US$1,170,344 for the period September 2008 to May 2010. Subsequently, the same interest rate was applied to the reduced balance of US$319,879 for 15 months to reflect the payout of an advance of US$950,635 to JPS in relation to the tropical storm.

7. Although Tropical Storm Gustav occurred at the end of August 2008 and the compensation becomes effective on February 10, 2011, the opportunity cost computation was only applied for 24 months. This was necessary since the initial report submitted by JPS auditors' in the middle of 2009 was deemed unacceptable by the OUR. Consequently, the computation clock was stopped at the end of July 2009 and restarted at the beginning of January 2010 on the receipt of a revised report from the auditors that was considered satisfactory. The compensation for the opportunity cost was therefore computed to be US$147,091.

JPS is therefore allowed a total compensation of US$1,317,435 in respect of Tropical Storm Gustav. However, the net compensation now due to the Company is US$366,800

[15] At the JPS' August 2008 billing exchange rate of US$1:J$72.07

(or J$31.5 million[16]) as on May 29, 2009 JPS withdrew an OUR approved advance of US$950,635 from the EDF. Accordingly, only the balance of US$366,800 for Tropical Storm Gustav is now payable.

In addition, JPS is allowed compensation of US$27,612 for audit fee incurred in relation to the 2005 Hurricanes.

The OUR HEREBY GRANTS its approval for JPS to withdraw the sum of **US$394,412** from the EDF and FURTHER REQUIRES JPS to notify the OUR of the withdrawal no later than three (3) days after the date of execution of the transaction.

[16] Based on the exchange rate data in the Bank of Jamaica Foreign Exchange Trading Summary for Jan 4, 2011. The foreign exchange rate was US$1: J$85.94.