Fair Trading Commission

FUEL ADJUSTMENT CHARGE FINDINGS REPORT

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1. Introduction

This paper reports the findings of the Commission's investigation into the Fuel Adjustment Charge applied by the Barbados Light & Power Co. Ltd. (BL&P). The decision to conduct this investigation was based on

1. General concerns expressed by consumers that there was a lack of transparency in its application.

2. The obligation of the Commission under the provisions of the Utility Regulation Act CAP 282, to monitor rates and standards of service of regulated utilities.

The Commission held public consultations during September 2004 following which the Commission engaged the consulting firm of Castalia Strategic Advisors "Castalia" in January 2006 to review the application of the fuel adjustment charge. Background on the Fuel Adjustment Charge is shown in Appendix 1.

Fuel Adjustment Charge Consultation

The Commission initiated a consultation on September 13th, 2004. The process included the issuance of a consultation paper "Fuel Adjustment Charge", as well as the hosting of three (3) public forums which were held at the Alexandra School, Solidarity House and the Lester Vaughn School. Details of the issues discussed in the Consultation Paper and comments received during the consultation are included in Appendix 2.

During the consultations the main concerns of the respondents were that:

(a) revenue from the fuel adjustment charge may be contributing to the company's profits and
(b) the fuel adjustment charge may be higher than it should be due to the use of the more costly fuels for generation.

The Commission therefore sought to address these issues through a review and investigation of the fuel adjustment charge by Castalia. Accordingly, Castalia were required to inter alia, assess whether the current method of determining the fuel adjustment charge provides adequate revenue to cover fuel costs without allowing the company to earn additional revenue; and give an assessment of whether the company is using the most economic and efficient generation mix.

The following section gives further details on what was required of the consultants under the terms of reference.

2. Investigation of Fuel Adjustment Charge by Consultants

Under the terms of reference set out by the Commission, the consultants were required to:

- Evaluate the method used by the company to project sales and costs which are used in determining the fuel adjustment charge;

- Assess whether the current method of determining the fuel adjustment charge provides adequate revenue to cover fuel costs without allowing the company to earn additional revenue from this aspect of the tariff;

- Evaluate the company's present method of determining the fuel adjustment charge and assess the impact on stability to both company and consumers. Compare this impact with that anticipated through suggested alternative method(s);

- Suggest an alternative formula or method which is transparent to consumers and does not result in an over or under recovery of fuel revenue over an extended period; and

- Assess the impact of implementing a system where the fuel adjustment charge is maintained at a constant level over consecutive months.

- Give an assessment of whether the company is using the most economic and efficient generation mix;

3. Review of Consultants Recommendations

This section presents the recommendations and supporting rationale of the consultants regarding the issues explored in their final reports followed by the Commission's response to each recommendation.

a) Fuel Adjustment Charge and Efficiency

Castalia Recommendation

The amount that BL&P is allowed to recover through the fuel adjustment charge mechanism should be related to the efficiency of its operation.

This efficiency should be measured in terms of its heat rate and transmission and distribution line losses. If the company exceeds efficiency targets it could recover an amount greater than that which is allowed by the fuel adjustment charge. If efficiency targets are not met the customers would receive lower charges.

It is considered that such a method would encourage BL&P to strive for the highest possible efficiencies with the incentive of maximizing earnings. At the same time, if the company's efficiency is reduced they would obtain less revenue.

Commission Response

The Commission recognizes that the method suggested fulfils the objective of providing an incentive for the company to continuously strive for improvement. However if the targets are exceeded customers will actually pay a cost for fuel greater than the fuel adjustment charge, or conversely if targets are not met BL&P will gain less revenue through this charge. The latter may affect the company's ability to maintain the quality of service generally and continue the expansion of service as required.

In principle, the main difficulty with this recommendation is that ultimately the customer will be penalised financially for any increase in the efficiency of operations of the company. Making customers pay a fuel adjustment charge that is greater than the amount that the utility incurs in purchasing fuel will mean that the fuel adjustment charge would no longer be a pass through charge.

However, the merit of periodically monitoring the average heat rates and line losses is agreed and the Commission will implement targets in these areas to be assessed in a manner similar to the method of evaluating the overall standards of the company. The Commission and the BL&P will agree the targets and the Commission will require that the company provide a report if it repeatedly falls below the targets. The Commission will reserve the right to impose penalties on the company for continuous performance below the standards if an unsatisfactory explanation is given.

The Commission also considers that there should be a unit of measurement introduced to address cost efficiency. While heat rate measures are designed to ensure that the technical efficiency of the plant is optimum it does not address the issue of aiming for the lowest cost per kWh of production.

In the rate hearing of 1983 this aspect was considered through the setting of targets for an accumulated production ratio (APR) of 5%. The APR is a measurement of the production from the gas turbines as a fraction of the total production. Gas turbines at that time used the more expensive fuels so this measure was indirectly a measure of cost efficiency. Increased efficiency of the modern turbines, growth in peak demand and an increase in the types of fuels which may be used in these turbines now makes the APR inapplicable.

The Commission will investigate the use of new indicators which will be aimed at addressing issues of cost efficiency.

b) Smoothing

Castalia Recommendation

The smoothing mechanism currently employed by BL&P should be retained.

Castalia's analysis showed that the mechanism for smoothing using projections of costs and revenues has achieved the objective of reducing fluctuations and has not resulted in prolonged periods where the company has been in a position of over recovery, that is, where the funds collected exceed the cost of fuel. In fact Castalia has stated that "if anything the balance in the fuel adjustment charge account has tended to be an under-recovery."

Commission Response

The Commission concurs with the view that the smoothing mechanism currently in place has considerable merit and will therefore allow BL&P to continue using this method.

c) Interest on over recovery

Castalia Recommendation

BL&P should be required to pay interest on any over recovery of fuel cost.

The company should return to customers over recovery with interest in order to give back customers their investment at the same rate of return as BL&P is allowed.

Commission Response

The Commission will explore this suggestion further and in the process will evaluate whether the benefits to customers justify any increased administrative and accounting costs. The period over which any over recovery would be assessed will also need to be addressed.

The Commission will review the feasibility of the Castalia proposed mechanism and consider the use of any other alternative methods of calculating the fuel adjustment charge which may provide incentives for improved efficiency.

d) Removal of base fuel charge

Castalia Recommendation

The base fuel charge of 2.64 cents should be removed from the energy charge, and all the fuel charge should be incorporated in the fuel adjustment charge.

The removal of the entire fuel charge from the energy charge is favoured as it is simple and enhances transparency, since customers often feel that there are paying for fuel twice when aspects related to fuel appear in more than one part of the bill.

Castalia also raised the alternative option of placing more of the fuel charge in the energy charge. In such a scenario, the amount of the fuel charge that is in the energy charge would be determined based on today's fuel prices. This would mean that the fuel adjustment charges would be very small or even negative if prices fell below the average set.

Commission Response

The Commission accepts that placing all of the fuel charge in one component of the bill would be more transparent. The Commission also acknowledges the value of the alternative option, that more of the fuel adjustment charge be placed in the energy portion of the bill but the latter alternative would not increase the transparency of the system to the same extent as the first option suggested.

However, under the Utilities Regulation Act, any change in the principles (formula, methodology or framework) for determining the rates of BL&P would require a rate hearing. The Commission does not consider that it would be prudent to convene a rate hearing at this time to look at this isolated issue especially as neither of the two actions proposed above is expected to affect the magnitude of the bill. The Commission may consider the feasibility of implementing the Castalia proposed mechanism at a later date when other aspects of BL&P operations and tariffs are being examined.

e) Competitive Procurement of Fuel

<u>Castalia Recommendation</u>

BL&P should review the process by which the contract for supplying fuel to BL&P is determined.

Discussions with BL&P revealed that they purchase fuel from BNOCL. There is therefore uncertainty regarding whether BL&P is currently obtaining fuel at the lowest available cost.

<u>Commission Response</u>

This issue is currently being investigated by the Fair Competition Department of the Commission.

f) Publishing of Relevant data

<u>Castalia Recommendation</u>

BL&P should be required to publish in detail the method of determining the fuel adjustment charge.

This should include monthly publication in the local newspapers of costs and revenue which go into the calculations of the fuel adjustment charge. Quarterly reports should be published showing the degree of over and under recovery from the fuel adjustment charge. A public consultation on the fuel prices for BL&P is also recommended.

By publishing the information the transparency of the processes would be enhanced and likewise the acceptability of the fuel adjustment charge.

Commission Response

The Commission agrees that a public awareness programme should be initiated to enhance the understanding of the nature of the inputs which are used to generate the fuel adjustment charge**.** The Commission is of the view that summary data on which the fuel adjustment charge is set should also be made available by BL&P to the public upon request. The Commission will pursue this with the BL&P and place a sample of the calculation of the fuel adjustment clause on its website for information.

4. Commission Position

The Commission having conducted this review concurs with the consultant's finding that **"there is no evidence that BL&P has been systematically over recovering."** Even though smoothing includes projections, the Commission believes that the method now employed compares favourably with that prescribed by the Public Utilities Board in 1983. The reduction in fluctuations achieved by the new method, justifies its continued use.

Accordingly, the Commission endorses the recommendation of Castalia to maintain the current method of smoothing. The Commission will, however, intensify the monitoring of indicators related to the efficiency of the BL& P. The regulation of BL&P will therefore be extended to include monitoring of heat rates and line losses. Monitoring of other indicators relating to cost efficiency will also be considered in the long term.

The Commission recognises that even though the current method adequately achieves the regulatory objectives of equity for consumer and the company, it is necessary to continue to explore alternatives which may be more appropriate in the future. The Commission will continue to work with the BL&P in this regard.

APPENDIX 1

Background on Fuel Adjustment Charge

The cost of providing electricity service to customers is affected by the fluctuation of oil prices on the international market. Since the cost of fuel is one of the main inputs in establishing the cost of electricity, the volatility of oil prices can have the effect of creating considerable uncertainty over the price.

The fuel adjustment charge eliminates the need for a rate hearing to be conducted every time there is a change in the cost of fuel. Through this mechanism the changes in cost of the fuel are passed through to consumers.

<u>Method used by the BL&P</u>

In the decision issued by the PUB in 1983, the fuel adjustment charge applied each month was set based on the over recovery/under recovery from the preceding 2 months.

The company has however made modifications to the system in the following way:

1. the fuel cost for each month is based on projections rather than purely on the over or under recovery of the previous months; and
2. The over recovery is maintained as a line item on the balance sheet but is not directly added or subtracted from the fuel cost of the month following.

The company wrote to the PUB in 1985 justifying the change on the basis that the new method produced less dramatic changes month to month and was therefore less of a burden on customers and the company from an accounting standpoint.

The information submitted monthly to the Commission gives an indication of the over and under recovery position of the company.

APPENDIX 2

Fuel Adjustment Charge Consultation

Issues Raised in Consultation paper

The Commission initiated a consultation on September 13th, 2004. The process included the issuance of a consultation paper[1] as well as the hosting of three (3) public forums which were held at Alexandra School, Solidarity House and Lester Vaughn School.

In the consultation paper the Commission outlined its position on the following issues:

1. Alternative Methods of Regulating Fuel Charge

In all electricity utilities which have cost of service regulation there needs to be a mechanism whereby the company can recover at least part of the increases in cost that they incur when there is an increase in oil prices. At times this is done by setting a variable fuel charge which may be modified periodically. In other instances the additional charge is reported as a separate line item with its own KWh charge.

Below are general advantages and disadvantages of the use of a Fuel Adjustment Charge.

Advantages

1. Allows company to recover any changing costs in fuel, allowing for greater stability, this is important to investors in the utility and the overall viability of the system; and

[1] FTC Consultation Paper Fuel Adjustment Charge, Document No. FTC/CONS04/04

2. Allows for changes to occur in tariffs from month to month without the necessity of engaging in rate hearings. This therefore reduces the regulatory cost.

Disadvantages

1. The system is not always transparent to customers / regulators; and
2. Over collection is not necessarily resolved on the following month or months to arrive at net value of zero.

2. Method of Fuel Adjustment Charge Application

The Commission recognises that the method adopted by the Barbados Light & Power Co. Ltd. reduces the spikes and thus reduces the effect of large monthly changes. However the system employed needs a level of transparency and this could be increased if the Commission is required to receive relevant information on choice of generation fuels.

Reconciliation – Alternative Applications

The Commission presented three alternative applications to the BL&P fuel adjustment charge; each example differed in the period over which reconciliation occurred.

- Monthly adjustments (Regulated Industries Commission, Trinidad & Tobago)
- Six month Reconciliation (Public Service Commission, Kentucky, U.S.A.)
- Annual Reconciliation (Public Utilities Commission, Texas, U.S.A.)

The Commission recognises that shorter reconciliation periods may increase fluctuations whereas longer reconciliation periods may increase the time where the company is in significant over or under recovery.

3. Generation Mix and Accumulated Production Ratio (APR) Requirement

The generation mix of the company significantly affects the cost of fuel used in producing electricity and thus determination of the level of the fuel adjustment charge. The monthly generation mix is determined by the maintenance needed on generation equipment, scheduled and unexpected, as well as the choice of generation technology that the company makes in planning for expansion. In recognition of this, the PUB in 1977 established a limit to the use of gas turbines which were less fuel efficient and used more expensive fuel for operation. The gas turbines were not to be responsible for more than 5% of the electricity generated per month from all generation. This variable in the generation mix was defined as the Accumulated Production Ratio (APR).

Decisions regarding the best way to use existing plant are currently made by the management of BL&P who have a level of expertise in this area. It is, nonetheless also critical to establish that the company demonstrates due diligence in maintaining its plant and equipment to ensure that customers are not unduly disadvantaged when base plant load machinery is out of use.

The Commission realises that with oil prices still being unpredictable a mechanism where the company can recover these increased costs is essential. There however needs to be an incentive to encourage the company to continually strive for the least cost fuel options. The APR level of 5% does not appear to be relevant given current technology but the Commission is of the view that there still needs to be some indicators set that allow the Commission to adequately monitor the efficiency of the company.

Responses to Written Consultation

The Consultation paper after setting out the Commission's concerns asked for responses from the public on specific questions and gave the opportunity for comments. The public forum also allowed for general comments on all relevant issues. Below is a summary of responses from these processes.

Q1. What are your views on the method currently used by BL&P to set the fuel adjustment charge? Do you have any suggestions for an alternative method?

One respondent was of the view that a six month or one year reconciliation should be used to make sure that the company is not maintained in an over recovery situation. Another respondent considered that the six month reconciliation similar to that used in Kentucky U.S.A. was the most appropriate.

Four respondents including the Barbados Chamber of Commerce (BCCI) considered that actual costs of fuel should be used rather than projections made by the company.

Barbados Light & Power are of the view that the current method benefits customers by reducing monthly fluctuations in the costs. The company has stated that the change in mechanism from the one proposed by the PUB was adopted after concerns expressed by consumers.

Q2. Do you have any suggestions for an alternative to the Fuel Adjustment Charge that can be applied?

One respondent considered that cost of fuel should be included in the operating cost of the company and customers should be charged a fixed price for unit of energy used. Two respondents were of the view that domestic customers should be exempted from the fuel adjustment charge, as had been the case before 1974.

With regards to other jurisdictions that did not use a fuel adjustment charge, the company believed that this was because these jurisdictions were not as dependent on petroleum based products as Barbados. BL&P therefore did not consider that an alternative to the fuel adjustment charge would be appropriate for Barbados.

Q3. Do you consider that the APR limitation of 5% should be enforced on the company by the Commission? Give reasons

The BCCI suggested that the 5% limit should be maintained in order to ensure that the company continued to seek the most efficient use of plant and fuels. BL&P did not consider that the 5 % APR was realistic considering the current generation mix and should therefore not be enforced. The company added that they expected the APR to be reduced below 10% when the new low speed diesel plant was installed.

Q4. Do you have any alternative suggestions of a mechanism to ensure efficiency of fuel use?

The BCCI considers that efficiency could be improved if the most efficient fuel mix possible was determined. The fuel adjustment charge would be based on the cost of fuel of most efficient fuel mix, in order to encourage the BL&P to move towards this.

Q5. Do you consider that BL&P should be required to submit the maintenance schedule for generation plant to the Commission?

The BCCI are not of the view that maintenance schedules should be shared with the Commission as this interferes with the responsibilities of the company management.

BL&P considered that the submission of the generation statistics was more useful than maintenance schedules since these may need to be modified from time to time.

Q6. Do you consider that the company should be required to submit projections of prices of fuel inputs periodically and the methodological basis of these to the Commission?

BCCI were of the view that the company should submit periodically both actual and projected fuel prices to the Commission.

BL&P is in agreement with submitting the projections it uses which are based on recent fuel prices and trends.

Other Issues Raised at Public Forum

1. Generation Plant

One respondent was of the view that the company decided on more expensive plant in order to increase profits.

He suggested that BL&P should rebate customers since high fuel adjustment charges is a result of their error in installation and technology choices. He was of the opinion that low speed diesels should have been installed 12 years before.

It seemed to the respondent that shareholders benefit from profits while customers pay for losses. He added that energy savings are generally not passed on to consumers.

2. Other Charges

One consumer was concerned that the fuel adjustment charge might contain other "hidden" charges which may contribute to the overall profits of the company.

Another consumer was of the view that the Commission should also investigate how other fixed charges are determined which may affect the electricity charge. If the company is over collecting in these areas this would reduce the amount of fuel adjustment charge that should be applied

3. Use of Jet Fuel

Two respondents wondered why jet fuel was chosen by the company as a generation fuel and why the use of natural gas was not considered in its place. Two respondents expressed concern that the gas turbines operated by jet fuel may be being used to provide baseload power.

4. Public Hearing

Two respondents suggested that a public hearing should be conducted by the FTC into the fuel adjustment charge.