

# Let's Talk Fuel Clause Adjustment

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Barbadians have been questioning the seemingly ever-increasing cost of electricity over the last two years and the Fair Trading Commission (Commission) and the Barbados Light & Power Co. Ltd. (BL&P) have through various media, sought to explain the reasons for the increase. As the utility regulator, the Commission is charged with establishing principles for arriving at rates to be charged as part of its regulatory function. One factor which influences the rates charged by the BL&P is the Fuel Clause Adjustment (FCA).

The FCA is a direct pass through charge whereby the customer is required to pay for the portion of fuel used to generate the quantity of electricity used by that customer. It was last audited in 2006, and from time to time the Commission is obligated to review these principles to ensure that what is applied is relevant and applicable to current circumstances. It is on this basis therefore that the Commission engaged the services of an external consultant to review the method of application of the FCA by the BL&P.

After meeting with the BL&P and the Barbados National Oil Company (BNOC), the consultant submitted a report which included a number of recommendations. The Commission has issued a consultation paper on this and will now share some of the findings of the review.

Since the cost of fuel is the single largest input cost in the production of electricity in Barbados, the volatility of oil prices has the effect of creating considerable uncertainty over the price of this utility service, and it is for this reason that all operational factors that are likely to impact the FCA were reviewed.

The current FCA calculation is forward-looking, and is calculated from forecasts of the cost of fuel used for electricity generation and energy sales. Where the BL&P recognises that the change in fuel costs in a given period is high, part of what is eligible for collection is deferred and recouped in the following month(s). This is known as "smoothing", as it has the effect of reducing the volatility as seen by customers. Smoothing as undertaken by the BL&P also takes account of market conditions such as current oil prices and local economic conditions at the time of application of the FCA. Smoothing deviates from the empirical formula and introduces an element of subjectivity in arriving at the total amount to be collected in a given month through consideration of what customers are willing to bear and the company's cash flow. In an effort to improve the transparency and accountability of the FCA the review suggests that the charge be based on actual figures from the previous calendar month's fuel cost and energy sales. Basing the FCA on historic figures also removes projection errors.

The BL&P has approximately 239MW of installed capacity, more than half of which is fueled by Bunker C supplied by BNOC, the least expensive petroleum fuel source. The remaining plant is operated on diesel and aviation jet fuel which are respectively more expensive, and obtained from commercial suppliers. Therefore, under optimal conditions the BL&P would want to utilise all their Bunker C operated plant, which are the steam turbines and low speed diesel (LSD) engines, before bringing the more expensive operating plant (gas turbines) into use. In practice, during the night, when demand is at its lowest the BL&P only operates the two steam turbines. The BL&P's rationale for this dispatch regime is that the steam plants - which have been operation for over 30 years - are run continuously because they become less reliable as the start and stop frequency increases. However efficiencies in LSD engines are normally much higher than for steam turbines. The review therefore suggests that the company should investigate running the LSD engines at night and have the steam units only on "hot standby";

Another dispatch issue which was raised pertains to fuel valuation. Fuel is currently valued at each power station on a monthly basis, building upon a weighted average of the balance at the beginning of the month and the deliveries received during that month. Deliveries are costed based on prices of fuel supply and the BL&P applies the resulting fuel price to each power station.

However the amount of fuel stored and burnt in each power plant is specific to each location and therefore fuel stock is different among them. Considering this together with transportation costs, fuel prices should be different at the Spring Garden, Garrison and Seawell power stations. Fuel stock valuation in this way may add to an enhanced dispatch.

Generally, BL&P's plant availability rates or the percentage of time that a generation unit is available for operation, are above those in the Caribbean. To some extent availability is a function of the age of the units as well as the maintenance programme, but in some instances, situations beyond the company's control contribute to the decreased availability.

These were just some of the findings of the review. The Commission is seeking public input on the findings and recommendations as outlined in the consultation paper before consideration of the future mechanics of the FCA. The consultation paper will also assist the public in getting a better understanding of the FCA element of their electricity bill.