

Corix Multi-Utility Services Inc.  
Burnaby Mountain District Energy Utility  
2020-2023 Revenue Requirement and Rates Application

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**CORIX RESPONSE TO SIMON FRASER UNIVERSITY (“SFU”) INFORMATION REQUEST NO. 1**

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**1.0 Reference: Exhibit B-1, Section 8.1.1, page 53  
Capital Structure, Interest on Debt and Return on Equity**

On page 53 of the Application Corix indicates that the deemed interest rate on debt financing of 3.60% was:

“determined based on utility credit spreads for BBB and BBB (low) rated debt and the 10-year Government of Canada bond yield, consistent with the approach outlined for calculating a “default debt” rate for small TES utilities from the Commission’s GCOC Decision (Stage 1) and confirmed in the Commission’s Stage 2 Decision. Corix’s financing assumptions are presented in Table 24 below. As per the approved TESA, the interest rate applicable to SFU will be reset at the end of the first 10 years from the service commencement date based on the BCUC approved principles at that time. Corix has applied the same interest rate to both SFU and UniverCity for the forecast test period. In future rate applications Corix will update the deemed interest rate for UniverCity in a manner consistent with the BCUC’s approach outlined in the relevant Order at that time”.

- (a) Assuming no change by the Commission in the approach outlined for calculating the default debt rate for small TES utilities in the Commission’s GCOC Decisions (Stage 1 and 2), please confirm that the “default debt” rate applicable to SFU will be reset and fixed at the end of the first 10 years from the service commencement date for a further period of 10 years based on utility credit spreads for BBB and BBB (low) rated debt and the 10-year Government of Canada bond yield prevailing at that time.

**Corix Response:**

Assuming no change by the Commission in the approach outlined for calculating the default debt rate for small TES utilities in the Commission’s GCOC Decisions (Stage 1 and 2), Corix can confirm that the “default debt” rate applicable to SFU will be reset and fixed at the end of the first 10 years from the service commencement date for a further period based on utility credit spreads for BBB and BBB (low) rated debt and the 10-year Government of Canada bond yield prevailing at that time. However, the length of the period for which the debt rate is fixed after the first ten years was not outlined in the TESA and it is Corix’s understanding that this is open to negotiation.

**2.0 Reference: Exhibit B-1, Section 6.1, page 37.  
O&M Cost Categories**

On page 37 of the Application Corix states that:

“At this time Corix does not have sufficient equipment maintenance data to create a reasonable R&R capital plan and so all R&R capital have been excluded from the forecast revenue requirement and rates. After the completion of the CEP, Corix will receive

equipment specifications and maintenance requirements from the original equipment manufacturers (“OEM”). This will inform future renewal and replacement schedules. Due to the greenfield nature of the biomass CEP operations, Corix intends to assess the operations and maintenance requirements for the equipment over the next several years. This will give Corix the opportunity to develop a structured R&R capital plan based on equipment specifications and OEM maintenance requirements, while taking into consideration actual operational data and observations in the field.”

- (a) If and when Corix develops an R&R capital plan, please explain in detail how Corix will establish the “default debt” rate for any incremental capital expenditures, including how long Corix will fix the debt rate on any such incremental capital expenditures.

**Corix Response:**

Corix has not yet determined how it will establish the “default debt” rate for any incremental capital expenditures associated with an R&R capital plan. There are several options available and the decision to pursue a particular option would have to take into consideration:

- the complexity of each option;
- the feasibility of implementation for each option for both SFU and UniverCity;
- the frequency at which the R&R capital investments occur;
- the magnitude of any changes in the default debt rate; and
- the size of the R&R capital expenditure relative to the initial investment.

For example, large and infrequent R&R capital expenditures made at times when the default debt rate is substantially different may warrant a different treatment from small and frequent R&R capital expenditures made when there has been no material change in the default debt rate. However, in favour of simplicity one treatment may be preferred for all aspects. Below is a list of some options for establishing the “default debt” rate. In the future Corix may add to this list or remove after further consideration.

The “default debt” rate for:

**(1) All R&R capital could be set equal to the fixed default debt rate applicable to SFU during the period which SFU’s default debt rate is fixed.**

- a. This option is the simplest approach and is easy to implement but does not take into account the default debt rate at the time the incremental capital expenditure occurs. The debt rate could have changed materially when the capital expenditure occurs.

**(2) R&R capital could be set equal to the default debt rate in the year the R&R capital occurs.**

- a. This option is more complex than option 1, especially in the case where SFU’s default debt rate is fixed for an extended period of time.
- b. This option would result in different interest rates for different tranches of capital expenditure, categorized by the year of the expenditure.
- c. While this option would more accurately reflect BMDEU’s cost of debt (than option 1) as the interest rate varies over time, it would be more difficult to implement.

**(3) R&R capital could be set equal to the fixed default debt rate applicable to SFU until such time that a material change to the default debt rate occurs.**

- a. This option is more complex than option 1, especially in the case where SFU’s default debt rate is fixed for an extended period of time.
- b. This option would result in different interest rates for different tranches of capital

expenditure.

**(4) R&R capital could be set equal to the fixed default debt rate applicable to SFU for all capital additions when the Total SFU net book value of assets in the year are equal to or less than the Total net book value at the commencement of the biomass in service date (e.g. November 2020).**

- a. This option is a modified version of option 1.
- b. As the value of the assets are depreciated each year the net book value declines. At the start of the period, the net book value equals the gross book value (undepreciated).
- c. In the long run depreciated capital (on a real basis) would be replaced by R&R capital.
- d. As long as the replacement capital expenditures are no higher than the accumulated depreciation then the fixed default debt rate could be used provided that Corix is able to forecast these expenditures. Forecasting of these expenditures are critical so that if interest rates rise materially, Corix would have had the opportunity to lock in a fixed rate before the expenditures occur to match the regulated rate.
- e. If the cumulative R&R capital expenditures are greater than the accumulated depreciation, then the utility would be requiring new injections of funds. In such as scenario the interest rate for this portion above the threshold net book value can be set at a level required by the current market in the year. This can be estimated by using the current interest rates for each year based on the BCUC's approach to calculating the deemed interest rate at that time. Using the current interest rate and having one threshold amount to calculate the interest would be easier administratively when compared to many tranches such as in option 2.
- f. This option is relatively simple to administer and utilizes a current and transparent interest rate that is fair to the customer and shareholder. However, this option requires a reasonable ability to forecast R&R capital expenditures below the net book value threshold so Corix has the opportunity to lock in a fixed interest rate particularly in a rising interest rate environment.

**(5) R&R capital could be set based on a hybrid of options 3 and 4 depending on the interest rate in the debt markets and the amount of R&R capital spend.**

- a. If the current year's interest rate is not materially different from the fixed default debt rate, the fixed default debt rate can be used under all R&R capital addition scenarios in that year.
- b. However, if interest rates are materially different then implementing a form of option 3 and 4 could be considered. The appropriate interest rate setting mechanism will depend on the following considerations: (i) the current and forecast interest rates, (ii) the difference between the current and forecast interest rates from the default debt rate, and (iii) the amount and materiality of R&R capital expenditures during the time period for which it is fixed.
- c. In cases of small differences in interest rates the default debt rate may be used. In cases of small R&R capital expenditures the default debt rate may be used. If there are large differences in the interest rate or significant R&R capital spending implementing a form of option 3 or option 4 would be appropriate.