CONSULTATIVE DOCUMENT

Document Reference: 2024/002/CD-01

Weighted Average Cost of Capital (WACC)

For

DOMINICA ELECTRICITY SERVICES LTD

June 2024

Independent Regulatory Commission
42 Cork Street, P. O. Box 1687, Roseau
Roseau, Commonwealth of Dominica
Office: 767 440 6634/7247 Fax: 767 440 6635
admin@ircdominica.org
www.ircdominica.org

CONSULTATION PROCESS

Persons who wish to participate in this consultation and to express opinions on this Document are invited to submit comments in writing to the IRC. Reponses/Comments should be sent to:

Executive Director
Independent Regulatory Commission
P.O. Box 1687
42 Cork Street
Roseau
Commonwealth of Dominica

Fax No: 767-440-6635

Responses, clearly showing the Document Reference identification, may be sent by mail or fax to the address or fax number above or by e- mail to: admin@ircdominica.org.

Confidential information provided with responses should be submitted as a separate document and clearly identified as such.

In order to stimulate debate, the IRC will place any responses received on its website at www.ircdominica.org immediately following the last date for receipt of responses. Comments on the responses will also be entertained by the IRC which should, likewise, be submitted by the date indicated.

The references and proposed timetable for this consultation are:

Document Ref No: 2024/002/CD-01
Document Title: Weighted Average Cost of Capital for DOMLEC

Event	Proposed Dates
Publication of First Issue of Document	**July 5th, 2024**
In-Person Public Consultation	**August 14th, 2024**
Closing of Responses on First (1st) Issue	**August 16th, 2024**
Comments on First Response and Publication of Second Issue of Document	**August 30th, 2024**
Closing of Responses on Second (2nd) Issue	**September 13th, 2024**
Statement of Results and Commission's Decision	**September 27th, 2024**

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WEIGHTED AVERAGE COST OF CAPITAL (WACC) FOR DOMINICA ELECTRICITY SERVICES LTD

Introduction and Background

The Commission has been of the view that to ensure timely completion of its review of any application for a tariff review submitted by DOMLEC it would be so minded in considering certain critical issues in separate proceedings leading up to the intent-to-file by DOMLEC.

These issues, which are critical inputs to the tariff determination, are:

1. Depreciation Policy. ***(Consultation completed in March 2024).***
2. **Determination of Weighted Average Cost of Capital.** ***(Ongoing Consultation).***
3. Approval of DOMLEC's 5-year Investment Plan.
4. Approval of Rate Base.

The Commission will conduct its review of DOMLEC's submissions and make determinations on these issues prior to the formal submission by DOMLEC of its Intent-to-File the final rate proposal on the presumption and condition that the Commission's Decisions on these issues will be used by DOMLEC as the input in the final determination of the tariff.

The **Weighted Average Cost of Capital (WACC)** includes *the average cost of long-term debt and the approved rate of return on equity. The return is the compensation which the company receives for the capital that is invested in the regulated asset base and is calculated by applying the WACC to the asset base*. Both the WACC and the regulated asset base must be approved by the Commission.

DOMLEC's submission, however, constitutes a request to set the value of the WACC to be applied to the regulatory rate base to compute the return at the tariff review proceeding. The Commission has decided that it will consider DOMLEC's request now submitted in full; the outcome of which will lead to the final determination of DOMLEC's WACC.

In this regard, therefore, this consultative document sets out the Commission's to DOMLEC's request.

The Commission's objective in this proceeding is to consider and decide on:

1) **The WACC which will be applied to DOMLEC's regulatory rate base in the tariff determination for DOMLEC, for the three (3) years tariff period.**

Policy and Legal Framework

The Commission's duties and functions regarding tariff making are provided for pursuant to provisions in three principal instruments – (i) the Act, (ii) the Licence and (iii) Commission's Determination *"Tariff Regime for the Dominica Electricity Services Ltd (DOMLEC), Document Ref: 2009/004/D"*.

The Act provides at Section 18:

"The Commission shall be independent in the performance of its functions and duties under this Act and shall not be subject to the direction and control of the Government or of any person, corporation or authority, except that the Commission shall have due regard to the public interest and overall Government policy, as embodied in legislation."

At Section 19:

"The Commission shall have sole and exclusive authority to regulate all electricity entities that are subject to this Act and shall have full powers to regulate all licencees with regard to all economic and technical aspects of regulation in accordance with this Act especially with regard to the determination of tariff or electricity charges."

At Section 20:

(1) The Commission shall, without limiting the generality of this section, have a duty to perform and exercise its functions and powers under this Act in the manner which it considers best calculated to:

(a) encourage the expansion of electricity supply in Dominica where this is economic and cost effective and in the public interest;

(b) encourage the operation and development of a safe, efficient and economic electricity sector in Dominica;

(d) facilitate the promotion of sustainable and fair competition in the electricity sector where it is efficient to do so;

(e) protect the interests of all classes of consumers of electricity as to the terms and conditions and price of supply;

(g) ensure that the financial viability of efficient regulated electricity undertakings is not undermined;

Firstly, the Act gives the Commission full authority to act independently in the performance of its duties specifically having regard to public interest considerations and government policy, as embodied in legislation. In providing for its functions the ESA (S20) mandates the Commission to act in a manner which it considers best calculated to achieve a number of policy objectives and in this regard clauses (a), (b), (d), (e) and (g) of Section 20; reproduced above are instructive.

The Act provides a framework for the Commission to set and review the tariffs charged by a supplier of electricity in Dominica. The Act sets out the authority and procedure for tariff making in Sections 23 and 24. These are as follows:

Section 23.

(1) An electricity service provider shall not: –

(a) offer service unless it has, prior to offering such services, filed its proposed tariffs with the Commission and such tariffs rates and charges have come into effect pursuant to

(b) make changes on tariffs, or other terms of the service after proposed tariffs have been filed with the Commission, except as authorized under this section.

(2) An electricity service provider shall submit tariff proposals in conformity with this section in writing to the Commission with respect to the tariffs it intends to apply for the use of its systems, facilities and services.

(3) Proposed tariffs filed under subsection (2) shall contain all relevant information concerning rates and charges for services, including deposits, non-recurring charges and monthly charges as well as terms and conditions applicable to the provision of services, including disputes or claims over billing or provision of services.

(4) A Licencee shall make tariffs available to the public by publishing such tariffs in the Gazette and in two local newspapers.

(5) All proposed tariffs filed with the Commission shall be kept complete, accurate and up to date.

(6) After a proposed tariff has been filed with the Commission and has come into force and effect, no changes may be made in the rates, charges or other terms of service relating to all the services provided under the tariff, except upon the filing and review of tariffs as provided in this Act.

(7) Proposed Tariffs shall:

(a) be accompanied by all accounting and costing information as the Commission may require; and

(b) comply with all other requirements and conditions as shall be applicable to the licensee concerned.

Section 24.

(1) All tariffs proposed by a licensee shall conform with the principles and provisions governing tariff formulation established by the Commission pursuant to the legislation for the time being and shall be submitted to the Commission for review as to their conformity with such principles and provisions.

(2) The Commission shall, within 60 days of the submission of a tariff proposed under subsection (1), make a determination to:

(a) approve the tariff without amendment;

(b) conditionally approve the tariff subject to amendments specifically proposed by the Commission being accepted by the licensee; or

(c) reject the tariff proposal outright, stating clearly in writing the reasons for such rejection, which reasons may include a determination that the tariff is not ripe for review.

(3) In the event the Commission makes a determination under subsection (2) (b) the licencee may submit a revised tariff within 30 days of the determination; and the Commission shall make a new determination in accordance with one of the three options specified in subsection (2) within 30 days of such submission.

(4) In the event of an outright rejection of the proposed tariff under subsection (2) (c), the Licencee may file a new tariff at any time; or may file a petition to the Commission for reconsideration of such rejection.

(5) A petition shall be filed within 30 days of the rejection and shall state the Licencee's basis for reconsideration, which may include a fundamental change in circumstances from the conditions that prevailed when the tariff was originally rejected by the Commission.

(6) In the event the Licencee files a petition for reconsideration under subsection (4), the Commission shall act upon such petition within 30 days and make a determination in accordance with one of the three options set forth in subsection (2).

(7) If the Commission fails to act on a tariff submission pursuant to this section within the timeframes for determination specified in subsections (2), (3) and (6), the tariff shall be deemed approved until such time as the Commission makes a determination.

Using the authority given it under Section 24(1) the Commission promulgated *Decision Document 2009/004/D "Tariff Regime for Dominica Electricity Services Ltd"* which by Order of the Commission became effective on April 30th, 2010, with a Notice of Proposed Rulemaking (NPRM) amendment that was promulgated on July 11th, 2022. This document sets out in clear and unambiguous terms the governing principles for the development and setting of the tariff which the Dominica Electricity Services Ltd (DOMLEC) will use from time to time.

Further, in granting new licences to DOMLEC in October 2013, the Commission ensured that the provisions of this Tariff Regime became firmly embedded in the Transmission, Distribution and Supply Licence through Condition 32 of the said licence, and forms part of the licence.

The Licence at Condition 32 addresses the Price Control Mechanism:

> *Tariff Principles:*
> *The Commission shall determine the Licensee's rates for electric power pursuant to its powers under the ESA and on the principles set out in the Commission's Decision Document: Tariff Regime for Dominica Electricity Services Ltd.; Document Ref. 2009/004/D as amended from time to time.*

While the Determination sets out in detail the methodology and process for determining the tariff for DOMLEC.

The following sections of the Determination are particularly instructive.

> *Regulatory Policy objectives*
>
> *The Commission's regulatory policy is to establish a tariff which balances the interests of the consumers and investors alike where the investors have the opportunity to realize a fair return on investment while customers can expect an efficient, responsive and economical service in an environment where the rights of all stakeholders are preserved. The Commission will not guarantee a rate of return to the investors but will seek to create a regulatory environment where the incentives are such that the company through efficient operational practices and continual efficiency improvements will have the opportunity to achieve the desired rate of return during any tariff period.*
>
> *Tariff Principles*
>
> *There are basically two models for a tariff structure which could apply in the Dominica situation.*
>
> 1. *A tariff which includes all the costs including the costs of fuel, based on a projected cost of fuel over the tariff period; or*
>
> 2. *A two-part tariff comprising (i) a non-fuel base rate and (ii) a fuel charge, which fully recovers the cost of fuel (subject to efficiency factors) and no more.*
>
> *Both methods use the same techniques and parameters for estimating revenue requirements, the exception being that in the first case fuel is included in the revenue requirements while it is not in the second case. The options for dealing with fuel costs are discussed separately. The Commission has accepted option No. 2 and will allow a 100% pass-through of fuel costs. The average tariff that will be in effect from time to time shall be consistent with the following:*
>
> *RR= OC +FC +GO*
> *Where:*
> *RR = Revenue Requirement*
> *OC = Operating Cost*
> *FC = Financing Cost*
> *GO = A provision to recover or return the cost of Obligations imposed by government which were not known or anticipated at the tariff review.*

The "Average Rate" then becomes the Revenue Requirement ($) divided by the forecast sales (kWh).

Average Rate = Revenue Requirement ($) / Sales (kWh)

Revenue Requirements

The Utility's revenue requirement is calculated as the sum of its estimated costs of providing service, where a fair return is included as one of those costs. These forecasted funding levels have to be sufficient to get the required work done without adversely impacting quality of service, or compromising reliability, customer service or safety: any disallowance resulting in deferral of projects or work activities must be carefully considered and weighed against these criteria.

The Revenue Requirement consists of the sum of Operating Costs and Financing Costs required for providing electricity service.

RR = Operating Costs + Financing Costs
Where RR= Revenue Requirement
Operating Costs = Costs of labour, non-generation fuel, ***depreciation****, income taxes, deferred costs*
Financing Costs = Cost of capital which includes cost of debt and equity.

The critical exercise is to determine the forecast of the revenue requirements based on a sustainable and defensible estimate of the expenses for the base year. One approach is where the base year is the year for which the most recent published annual reports and audited financial statements are available and from which the Test Year (the forecasted year), representing a forecasted statement of expenses and costs that are known and measurable is derived.

In any event, in all cases, the expenses that are ultimately approved for inclusion will be those that are determined by the Commission to be prudent.

The non-fuel revenue requirement is developed based on a combination of demonstrated historic costs and forecast costs. The fuel revenue requirement is by definition a 100% pass-through of actual cost and will change monthly according to an agreed-to formula.

The revenue requirement for the Base Rate is then:

Base Rate RR = NFOC + FC + GO + RF
Where:
RR = Revenue Requirement
NFOC = Non-Fuel operating Costs (this includes non-generation fuel)
FC = Financing Costs
GO = Government Obligations, and
RF = Regulatory Fees

The WACC is a fundamental element of the revenue requirements and goes to the core of the principles for balancing the interests of the company and that of the consumer.

The Determination sets out the principles for determining the WACC:

Cost of Capital Rate

The Cost of Capital Rate is the weighted average of the cost of rates for the various items in the utility's capital structure, i.e. debt, preferred equity, and common equity.

This estimate is the rate of return investors will receive and it is applicable to the Rate Base. DOMLEC, in making its tariff submission, is required to make detailed proposals along with supporting analysis to the Commission on its derivation of the WACC to be applied in its revenue requirements determination.

Weighted Average Cost of Capital

The cost of capital is a weighted average of the cost of debt, preferred equity, and common equity, where the weights are the market-value percentages of debt, preferred equity, and common equity in a firm's capital structure. The overall cost of capital, which is called the firm's "weighted average cost of capital" (WACC), is specified by the following formula:

$WACC = w_d k_d + w_c k_s + w_p k_p \qquad (1)$
where,

w_d = *the fraction of debt in capital structure,*
w_c = *the fraction of equity in capital structure,*
w_p = *the fraction of preferred stock in capital structure,*
k_d = *cost of debt,*
k_s = *cost of equity,*
k_p = *cost of preferred stock.*

To apply the formula, one must estimate the cost of debt, preferred stock and common equity using methodologies accepted by both financial economists and regulators. In addition, one must estimate the capital structure mix of debt, preferred stock, and common equity. With these inputs, the WACC can be calculated from the above equation.

The cost of debt, interest payment, and the cost of preferred stock, dividend payment, are fixed by a contract and therefore are relatively easy to measure. The measurement of the cost of common equity, on the other hand, is more involved since return to common equity is not fixed, and thus is not known with certainty.

Instead, return on equity must be estimated. The estimation of return on equity is based on the principle that rational investors will not invest in a particular investment opportunity if the expected return is less than the return expected from alternative investments of comparable risk. Therefore, return on equity is calculated by measuring the expected returns on alternative investments of comparable risk.

Estimating the return on equity may give rise to two types of errors. First, the use of any specific model may give rise to errors or biases unique to that model. To reduce errors that may result from the application of any one model, several financial models have been employed to estimate the cost of equity. The final cost of equity figure used in calculating an overall rate of return is the average of the results of the models applied. Second, the measurement of the cost of equity for any individual company may involve errors. To reduce errors that may result from the estimation of the cost of equity for a single company, the models are applied to a group of companies of similar risk.
Next, the selection of comparable companies for DOMLEC is explained.

Comparable Companies

The comparable group of companies is an important factor in both the Discounted Cash Flow (DCF) model and the Capital Asset Pricing Model (CAPM). To select a comparable group that provides reasonable risk proxies, analysts rely on companies' bond ratings and safety ranks. Bond ratings and safety ranks are viewed by investors as measures of investment risk. For the U.S., the Value Line Investment Survey provides bond ratings and safety ranks for a large number of public companies in various industries. Value Line bond ratings and safety ranks are used to exclude companies that have a speculative bond rating. In the absence of similar information for Dominica, companies will have to be identified for which information is available.

Models for Estimating Cost of Equity Capital

There are two widely accepted models for estimating the cost of equity capital. The first, the Discounted Cash Flow (DCF) model assumes that the current market price of a company's stock is equal to the discounted value of all expected future dividends. There are various formulations of the DCF model based on different projections of future dividend growth. The version of the DCF typically applied is the constant growth or the Gordon Model. The Second, the Capital Asset Pricing Model (CAPM) assumes that the cost of equity investment is equal to the risk-free rate of interest plus the risk premium on the market portfolio adjusted by the company-specific risk factor, beta.

An average of the costs of equity derived from the DCF and CAPM models could then be used as the appropriate value for Cost of Equity.

DOMLEC's Proposal

Filing requirements

The Determination provides at "*Schedule D*" the information requirements to be met by DOMLEC in submitting its proposals specific to the Cost of Capital determination. The Commission has **determined** that DOMLEC has satisfied the filing requirements in this regard.

DOMLEC's Expert advice

In support of its request for a Determination on the WACC, DOMLEC relies on a study carried out by Mr. William Vinhage of Vinhage and Associates as the main piece of expert evidence. Mr. Vinhage's report "Determination on Equity (ROE) Range for Dominica Electricity Service Ltd.", dated June 2023, which was included with the submission, seeks to assist the utility to establish, using the methodology prescribed in the Determination, the ROE element of the WACC. The Commission has noted that Vinhage and Associates which is a Florida-based company has a client list which includes Grenada Electricity Services Ltd (GRENLEC) from the Caribbean region and WRB Enterprises of Florida. Mr. Vinhage has over 20 years' experience of consultancy services and professional experience in the following areas:

- Strategic Planning & Analysis
- Project/Program Process & Impact Evaluations and Financial Analysis
- Statistical and Econometric Analysis and Forecasting
- Development of Financial/Operational Measurement and Tracking Systems
- Financial Planning, Budgeting & Analysis
- Competitive Intelligence & Benchmarking
- Development of Utility Revenue Requirements, Cost of Service and Tariff Design
- Process Design, Coordination, Mapping & Analysis

He has also had utility experience with Progress Energy and Tampa Electric Company.

The Commission is of the view that Mr. William Vinhage has the competencies to carry out the expert work on behalf of DOMLEC.

Summary of DOMLEC's Proposal

DOMLEC's conclusions are presented below:

1) *The requested Return on Equity ("ROE") of 13.05%% was guided by the Study undertaken by Vinhage & Associates. The Study evaluated the cost of capital for alternative equity investments with risks similar to those of the Company and is based on the 2022 experience of major North American capital markets.*

2) *The Company's cost of debt is 5%.*

3) *The 13 months average capital structure is 46.6% debt and 53.4% equity.*

4) *The Company requested that its Weighted Average Cost of Capital (WACC) Post –Tax Nominal value set at 9.30% and WACC Pre-Tax- Nominal at 11.63%.*

5) The Company continues that if the request is granted it will use the approved rate of return (WACC) as a component in its tariff review filing to calculate its revenue requirements for the 2023 Test Year.

The Commission has taken note of DOMLEC's comments as cited in the application of the Weighted Average Cost of Capital (WACC) submitted to the Commission in June 2023.

The Commission's Considerations

The Determination sets out the overriding principles that guide the Commission's philosophy and approach to tariff making. For emphasis this is repeated below:

> *Regulatory Policy objectives*
>
> *The Commission's regulatory policy is to establish a tariff which balances the interests of the consumers and investors alike where the investors have the opportunity to realize a fair return on investment while customers can expect an efficient, responsive and economical service in an environment where the rights of all stake holders are preserved.*
>
> *The Commission will not guarantee a rate of return to the investors but will seek to create a regulatory environment where the incentives are such that the company through efficient operational practices and continual efficiency improvements will have the opportunity to achieve the desired rate of return during any tariff period.*

The challenge in the determination of the rate of return is to identify a mechanism which satisfies the reasonable expectations of customers and investors alike.

The IRC's Expert Advice

In review DOMLEC submission for the approval of the WACC on its rate base, the Commission contracted the service of Mrs. Lamis Aljounaidi, Regulatory Consultant from Paris Infrastructure Advisory (PIA), Mrs. Aljoumaidi is a recognized expert in energy economics, tariff setting and financing. She has sixteen years of experience in energy infrastructure development and economics focused on renewables and networks. The Regulatory Consultant supported over 50 projects through different development and financing stages including regulation, WACC calculations, pricing, market design for investment incentives. She has experience working in Dominica, to support the regulator through the development of a geothermal IPP (2018-2020) during which she evaluated the DOMLEC-DGDC PPA, did Electricity Demand Forecasts, and review of the Project's Financial Model. The Commission can confirm that the Regulatory Consultant has the professional competence and expertise to review DOMLEC's application for the WACC.

The Commission is minded that there are three issues to be settled in order to derive WACC:

1. Determination on an appropriate capital structure for DOMLEC
2. Determination on the cost of long-term debt
3. Determination on the cost of equity

Capital Structure

The methodology does not explicitly provide guidance as to an appropriate capital structure for an electric utility such as DOMLEC, but there are benchmarks that can and will guide the Commission's approach to determining whether the proposals on capital structure requested by DOMLEC are reasonable.

Generally the cost of debt is cheaper than that of shareholders' equity; the factors that tend to influence the cost of debt is that usually there is a tax benefit in that the company will get income tax relief on the interest payments to lenders while this is not usually the case on dividends payable to equity holders; also debt holders face less risk than equity holders in that the former have first claim on the company's assets in the event of bankruptcy or default. This makes debt less risky than equity and therefore the returns to equity holders are generally higher than that to debt holders. Because of this it is important to derive a prudent mix of debt and equity to optimize the value to consumers.

DOMLEC has requested a **Capital Structure** of 46.6% debt and 53.40% equity based on its actual year end balances as of December 31, 2022. The company points out, using the CARILEC most recent available balances to benchmark an optimal capital structure, the average debt amongst Caribbean utilities is 58.2%.

Table 1 below depicts DOMLEC 's Equity percentage of its capital structure and those of other regulated power utilities in the region.

Table 1.

Equity Percent of Traditional Capital Structure
Based on Most Recently Available Balances

Company	Equity Percent of Capital Structure
DOMLEC (2022)	53.4%
Bermuda Electric (2019)	65.6%
Jamaica Public Service (2020)	51.1%
GRENLEC (2020)	70.3%
Caribbean Utilites Company (2021)	50.4%
Average	**58.2%**

The Commission also noted the debt percentage of investor-owned utilities in the region as follows as shown in *Table 2* below:

Table 2.
Gearing of some Caribbean Utilities

Country	Utility	Gearing
Bermuda	Bermuda Electric (2019)	34.4%
Jamaica	Jamaica Public Service (2020)	48.9%
Grenada	GRENLEC (2020)	29.7%
Grand Cayman	Caribbean Utilities Company (2021)	49.6%
Average		40.65%

It can be noted that given the relatively small sample size of some Caribbean Utilities and GRENLEC extremely low value of 29.70%, **DOMLEC's proposed gearing of 46.6% is not significantly out of sync with that of the other utilities cited above.**

Table 3 below illustrates the composition of DOMLEC's capital structure as stated in the 2022 Annual Report.

Table 3.
DOMLEC's Capital Structure

Extract from DOMLEC 2022 Annual Report
Financial Statements - Note 10 - Borrowings

		2023	2022	2021
Total borrowings	$		$79,025,574	$80,347,121
Total equity	$		$90,953,864	$88,126,751
Gearing			46.49%	47.69%

The Commission will accept the data provided in the audited financial statements at the onset.

In order to balance the stakeholder interests the Commission is of the view that the gearing should approach 50%. In the recent 2 years, DOMLEC gearing averaged 47.09% and this is comparable with that of other regional utilities.

Accordingly, the Commission proposes that for this rate case the capital structure will be maintained at 46.6% debt and 53.4% equity to reflect the established benchmarking indicators among the region of 48% - 50%.

The IRC's Rationale, Proposed Decisions and Consultation Questions

1. Rationale to Cost of Debt

The cost of debt is quite simple to determine if the actual cost of the debt on the company's books is used. In this regard DOMLEC's request is as follows:

> *Company's Cost of Debt*
>
> *(20.) The Company's application is based on a cost of 5% for the Company's outstanding long-term debt as reported in Note 10 of the company's 2022 audited financial statements which are included as Appendix B. This cost rate is derived from the projected interest on the Company's 13-month average long-term debt, which on December 31, 2022, projected at EC$77,536,460.00"*

The Commission accepts this proposal and will determine that the Company's cost of debt be fixed at 5%.

Proposed Decision No. 1

DOMLEC's capital structure shall be 46.6% debt and 53.4% equity for the tariff period.

Consultation Question No 1:

Do respondents have any view regarding the proposed capital structure for DOMLEC should be set at 46.6% debt 53.4% equity? If not, please explain why not?

2. Rationale to Cost of Equity

As has been advanced by DOMLEC and consistent with received wisdom the characteristics of the cost of equity are such that it must be estimated. The Determination recognizes this and in so doing advances the following as guidance:

> *The measurement of the cost of common equity, on the other hand, is more involved, since return to common equity is not fixed, and thus is not known with certainty.*
>
> *Instead, return on equity must be estimated. The estimation of return on equity is based on the principle that rational investors will not invest in a particular investment opportunity if the expected return is less than the return expected from alternative investments of comparable risk. Therefore, return on equity is calculated by measuring the expected returns on alternative investments of comparable risk.*
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> *Estimating the return on equity may give rise to two types of errors. First, the use of any specific model may give rise to errors or biases unique to that model. To reduce errors that may result from the application of any one model, several financial models have been employed to estimate the cost*

of equity. The final cost of equity figure used in calculating an overall rate of return is the average of the results of the models applied. Second, the measurement of the cost of equity for any individual company may involve errors. To reduce errors that may result from the estimation of the cost of equity for a single company, the models are applied to a group of companies of similar risk.
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An average of the costs of equity derived from the DCF and CAPM models could then be used as the appropriate value for Cost of Equity.

The cost of equity proposed by DOMLEC was estimated with the use of the Discounted Cash Flow (DCF) and Capital Asset Pricing Model (CAPM) methodologies. These are widely used and accepted by regulators worldwide as well as in the region for deriving the cost of equity. In computing the cost of equity and in making its case, DOMLEC has relied, as indicated earlier, on the study carried out by Mr. William Vinhage of Vinhage and Associates as the main piece of expert evidence.

Risk adjustments.

The first and perhaps most critical issue when considering the cost of equity (particularly in circumstances where foreign investors are involved) is to settle on the risk-free rate and the risk premium associated with the investment.

The risk-free rate is the interest rate that can be obtained by investing in financial instruments with no default risks – the choice of this rate for an international investor, who has the option of investing in other countries, could be considered as the current rate attributable to US Treasury bills as these could be considered as "safe/risk free" investments. The appropriate applicable rate

could be considered as either the date of DOMLEC's application or the date of the Commission's analysis.

Given the nature of DOMLEC's investments, the Commission is of the view that 10 Year US Treasury bond is the appropriate measure of long-term risk-free rate. The Commission noted in the submission that DOMLEC has proposed that the 30-year US Government bonds from December 2022 through May 2023 be used as the risk-free rate to determine CAPM in this study based on the long lives of utility assets.

Based on the review conducted by the Commission, it was noted that in Jamaica Public Services Co. Ltd, 2019 Tariff Determination, the Office of Utilities Regulation OUR retained a 20-year average of historical US Treasury bond to represent the risk-free rate in the utility's tariff proceeding. However, the Commission informed that many European Regulators retain a 5-year average US Treasury Bond to determine the risk-free rate for utility companies.

The Commission recognizes that the Eastern Caribbean Dollar is stable and has maintained its parity since it was pegged to the US$ on July 1, 1976, and on this basis could be used for benchmarking risk when investing in the OECS market. However, given the relatively small size of the OECS market and the fact in the Eastern Caribbean Securities Exchange (ECSE) is an immature market, the Commission relied on the approach widely used by regulators to use US the Treasury Bond to determine the risk-free rate. The Commission noted the average monthly yields for 10 ten, twenty and thirty-year US Government bonds from December 2022 through May 2023 as cited by DOMLEC and shown in *Table 4* below.

Table 4:

US Government Bond Rates by Term

Month	10 year	20 Year	30 year
Dec-22	3.62%	3.87%	3.66%
Jan-23	3.53%	3.81%	3.66%
Feb-23	3.75%	3.95%	3.80%
Mar-23	3.66%	3.94%	3.77%
Apr-23	3.46%	3.80%	3.68%
May-23	3.57%	3.96%	3.86%
Average	**3.60%**	**3.89%**	**3.74%**

As cited in DOMLEC's submission a risk-free rate of 3.74% is being proposed for consideration. However, based on the most recent published data as of July 19, 2023, of the 6-months average of US 10 treasury bond, the Commission feels that it is reasonable and practical to propose a risk-free rate of 3.75%.

Proposed Decision No. 2

DOMLEC's cost of debt shall be fixed at 5%.

Consultation Question 2:

Do respondents agree to use as the cost of debt, the proposed interest rate of 5% based on DOMLEC's long term debt? If not, please explain?

3. Rationale to Risk-Free Rate

DOMLEC has proposed that there is a need to provide for small company size adjustment in the makeup of the risk arguing that there is need "*to reflect the increased risk associated with DOMLEC being a very small island utility with limited opportunity for diversification of resources, customers, et cetera to mitigate a host of risks*". The Commission accepts the view expressed regarding the risk associated with doing business in small island economies. The Commission recognizes that DOMLEC is a monopoly operating in Dominica and supply power to over 98% of the population and is of the view that the country risk premium be factored in the estimation of Return on Equity (ROE) for DOMLEC instead. Research conducted illustrates that regulators within this jurisdiction accept the inclusion of country risk premium to estimate the return on equity. The Commission noted that in the 2019 Tariff Determination for Jamaica Public Service Company, the Office of Utility Regulation (OUR) Jamaica applied a country risk premium of 2.53%.

Similarly, in the 2023 Tariff Determination for Barbados Light and Power Holding, the Fair-Trading Commission (Barbados) approved a country risk premium of 2.05%. Accordingly, the Commission accept that the country risk premium of 3.08% proposed by DOMLEC to be used to estimate the Return on Equity.

Proposed Decision No. 3

The risk-free rate to be used is based on the 6-month average of the 10 Year US Treasury Bond as of July 19, 2023, of 3.75%.

Consultation Question No 3:

Do respondents have any views on the proposed use of the US 10-year Treasury Bond as of July 2023 of 3.75% be used as the basis for fixing the risk-free rate for DOMLEC? If not, please explain.

4. Rationale to Comparable Companies

In a document originating from Stern Business School of New York University, the response to the question "What is a comparable firm?" was "*A comparable firm is one with cash flows, growth potential, and risk similar to the firm being valued*". In addition to this, most analysts have concluded that comparable companies must be in the same business or line of business.

DOMLEC proposed a selection of 40 publicly traded US Electric companies as that the comparable companies against which it should be compared for the purposes of calculating Beta β. In order to ensure comparability with DOMLEC, some companies were excluded from the group on the basis that some of them were not fully vertically integrated and or fully regulated. In the final analysis, DOMLEC selected 15 publicly traded US Electric Companies as comparable companies to be used to compute calculating β. In fact, on describing the composition of *comparable group of companies DOMLEC connoted: -*

"These methods require a comparison group of comparable companies. Ideally, a group of investor-owned island based electric utilities in the Caribbean region would be identified for this purpose. Unfortunately, there are numerous obstacles that make the use of a Caribbean comparison group impractical. Specifically:

a. *Many of the regional electric utilities are government owned and operated.*

b. *Many of the companies are a subsidiary of a larger holding company and do not report their financial data for the company in question and are not individually traded stocks.*

c. *The few stand-alone regional investor-owned utilities that do exist are not traded on exchanges with sufficient liquidity and volume to properly implement the estimation techniques.*

Given these obstacles, we have developed a comparison group of electric utility companies that are traded on the stock exchanges of the United States. Every effort has been taken to construct this comparison group in a way that maximizes its comparability to DOMLEC. Notwithstanding these efforts, two significant differences between DOMLEC and the comparison group must be addressed:

i. *The higher risk of operating a business on Dominica, relative to the United States.*
ii. *The marked difference in size between DOMLEC and the comparison group.*

The Commission is mindful that the size of electric utility companies in the US is massive relative to DOMLEC and faces different levels of risks but noted that regulators use as benchmark, publicly traded US Companies. This is because the US Stock Exchange is considered a stable and mature market. As part of the research conducted, the Commission informed that in the 2019 Tariff Determination for Jamaica Public Service Company (JPS), the Office of Utility Regulations (OUR) retained as beta (β), values the latest 5-year information of β for US Electric Utilities.

The Commission believes that this sample size of comparable companies presented by DOMLEC is relatively too small as it can result in increased variability making it difficult to establish the

true relationship in the data. Moreover, the Commission is of the view that a larger sample of comparable companies can reduce error present when estimating betas for a single asset.

Economic theory states "the *higher the debt level of a company the higher its risk and thus, the higher the measured beta, which is the equity beta."* Accordingly, it was found that a larger sample size is more realistic. The Commission considered 48 US Electric Utilities from S &P 500 US Electric Utilities, but selected 30 of the US companies as comparable to DOMLEC to calculate β.

The Commission therefore proposes that the list of US Companies shown in *Table 5* below be selected as proxy companies to DOMLEC for the following reasons:

- They are in the same line of business.
- They are Vertically Integrated Utilities.
- They are Regulated Utilities.

Table 5.
Levered and Unlevered Betas for US Power Utilities

Enterprise	LT Debt to Equity	Equity Beta	Unlevered Beta
Southwest Gas Holdings, Inc.	1.45	0.3	0.14
Genie Energy Ltd.	0.00	0.34	0.34
PNM Resources, Inc.	1.77	0.41	0.17
Hawaiian Electric Industries, Inc.	1.01	0.62	0.34
Duke Energy Corporation	1.34	0.43	0.21
Avangrid, Inc.	0.48	0.45	0.33
FirstEnergy Corp.	2.09	0.45	0.17
NextEra Energy, Inc.	1.41	0.46	0.22
Pinnacle West Capital Corporation	1.28	0.47	0.23
Eversource Energy	1.47	0.5	0.23
The Southern Company	1.67	0.53	0.23
Spire Inc	1.05	0.5	0.27
Portland General Electric Company	1.32	0.58	0.28
Northwest Natural Holding Company	1.06	0.58	0.32
Chesapeake Utilities Corporation	0.69	0.58	0.37
IDACORP, Inc.	0.78	0.61	0.38
Atmos Energy Corporation	0.61	0.62	0.42
Entergy Corporation	2.02	0.65	0.25
ONE Gas, Inc.	1.03	0.65	0.36
New Jersey Resources Corporation	1.37	0.65	0.31
National Fuel Gas Company	1.00	0.68	0.38
OGE Energy Corp.	0.80	0.7	0.43
ALLETE, Inc.	0.61	0.72	0.49
PPL Corporation	0.93	0.81	0.47
Edison International	2.03	0.82	0.32
The AES Corporation	8.92	0.97	0.12
Vistra Corp.	2.48	0.98	0.33
NRG Energy, Inc.	2.08	1.01	0.38
UGI Corporation	1.07	1.09	0.59
PG&E Corporation	2.09	1.12	0.42
Unlevered Beta			0.32

Proposed Decision No. 4

The Commission proposes to use All US Power Utilities as the proxy utilities to compute unlevered Beta (β) for DOMLEC.

Consultation Question No 4

Do respondents agree to use the Commission proposed All US Power Utilities as the proxy utilities proposed by IRC or the 15 US Power Utilities recommended by DOMLEC. Please provide reasons.

5. Rationale to Equity Risk Premium

In the computation of the cost of equity, a key component in the methodology is the determination of the equity risk premium. The formula is derived as the difference between the expected market return and risk-free rate. DOMLEC cited *that historical return data for the S&P 500 is readily available. Since any calculated average is impacted by the time horizon chosen, it is preferred to use as long a time horizon as possible. This minimizes the bias, whether it is upward or downward, that may result from the selected time horizon*. DOMLEC further noted that *while actual returns can swing abruptly from one year to the next, the long-run average is stable and provides a reasonable estimate to the overall expected return.* Accordingly, DOMLEC used S&P 500 historical return data from 1926 through 2022 of 12.01% as the expected market return. Factoring this value in the equation DOMLEC determined a proposed Equity Risk Premium of 8.27% to be used in the computation of the cost of equity.

The Commission recognizes that most regulators worldwide including the OUR of Utility Regulation (OUR) Jamaica and Fair-Trading Commission (FTC) Barbados, utilize dataset from Dimson, Stuanton and March (DSM) Global Investment returns and the Aswath Damodaran data base. The Commission is of the view that market risk premium relative to treasury bills having a maturity below one year or to treasury bond with a maturity of up to 30 years. The evaluation of DSM 2023 study presents the following:

Market premium relative to bonds (1900-2022)	*4.6%*
Market premium relative to bonds (1973-2022)	2.7%
Market premium relative to bills (1900-2022)	5.9%
Market premium relative to bills (1973-2022)	5.5%

Similarly, an evaluation of the implied market risk premium published by Professor Aswath Damodaran as of August 1, 2023, presents the following:

Implied market risk premium	4.38%
Market premium relative to bonds (1928-2022)	5.06%
Market premium relative to bonds (1973-2022)	4.12%
Market premium relative to bills (1928-2022)	6.36%
Market premium relative to bills (1973-2022)	5.9%

Based on benchmarking parameters established by regulated utilities to include OUR Jamaica and FTC Barbados, the review determines that market risk premium relative to treasury bonds with long term maturity is utilized in the determination of the cost of equity.

Accordingly, the Commission proposed an equity risk premium of 5.06% in the determination of the cost of equity rather than 8.27% as recommended by DOMLEC.

Proposed Decision No. 5

The Commission proposes that the small company size should be excluded, but rather the country risk premium of 3.08% as well as equity risk premium of 5.06% be factored in the calculation, instead of 8.27% proposed by DOMLEC be included in determining the cost of equity for DOMLEC.

Consultation Question No 5

Do respondents agree that the small company size be excluded in the computation of cost of equity for DOMLEC but rather the country risk premium of 3.08% be factored in the calculation as well as equity risk premium of 5.06% be factored in the calculation, instead of 8.27% proposed by DOMLEC?

6. Rationale to The Equity Beta (β)

The beta of a stock is the relevant measure of risk for well diversified investors. This systematic risk is inherent in the respective stock, and it is this risk that cannot be diversified.

For the United States, analysts typically rely on the estimates of beta from the Value Line Investment survey. The Value Line derives beta estimates through a regression analysis of the relationship between weekly percentage changes in the price of a stock and the weekly percentage changes in the New York Stock Exchange Index over a period of five years. There are no prepared analysts' estimate of beta for DOMLEC or other Power Utility Companies in the OECS. Within the OECS jurisdiction, DOMLEC trades its stock on the Eastern Caribbean Stock Exchange (ECSE)but it is still relatively small when compared to stock exchanges from developed markets.

The theory behind beta is that it is a financial term used for measuring the volatility or systematic risk associated with investing in a diversified portfolio of assets relative to the market. This additional risk is measured as a covariance between the risk of the investment and the risk of the market.

Economic theory states *"There can be different beta calculations for the same assets as it is a relative measure that depends on the time period, the reference date, the interval of the closing price and the market index used as reference.*

Consider beta as the measure of covariance when:

Beta = 1 means that the investment has a similar behavior to the market
Beta > 1 means the investment has a higher risk versus the market.
Beta < 1 means the investment is below the market risk.
Beta =0 represents a riskless investment"

To estimate the beta for Dominica Electricity Services Ltd (DOMLEC), Both IRC and DOMLEC, rely on Beta (β) values published for the US Power Electric Utilities. DOMLEC gathered Beta (β) values for the 13 US Power Electric Utilities value using daily market data without adjustment from the US Stock Exchange for the 10-year period ended December 2022.

DOMLEC proposed average levered beta value for the comparable companies of 0.66 is depicted in *Table 6.* below:

Table 6.

Comparison Group β Values

Calculated using Daily Data from January 2012 to December 2022

Symbol	Company	β
ALE	Allete, Inc.	0.72
LNT	Alliant Energy Corporation	0.58
AVA	Avista Corporation	0.63
BKH	Black Hills Corporation	0.79
CMS	CMS Energy Corporation	0.54
HE	Hawaiian Electric	0.58
IDA	IDACORP, Inc.	0.63
OGE	OGE Energy Corporation	0.71
OTTR	Otter Tail Power Corporation	0.88
PNW	Pinnacle West Capital Corporation	0.63
PNM	PNM Resources, Inc. (Holding Co.)	0.65
POR	Portland General Electric Company	0.67
WEC	WEC Energy Group, Inc.	0.52
	Average	0.66

Similarly, the Commission derived beta values based on data gathered from Reuter database as of July 2023. The Commission adjusted the Beta to determine the average of the unlevered beta for all the 30 US Power Electric Utilities and proposed an average unlevered beta of 0.32 to be used as proxy for DOMLEC. Since there is no exact US Power companies closest in size and market capitalization to DOMLEC, the Commission considered as a best benchmark for comparable companies to DOMLEC to use unlevered beta published by Professor Aswath Damodaran for all U.S Power Companies. The Commission therefore proposed unlevered beta value of 0.44 to be used as proxy for DOMLEC based on the five (5) unlevered betas for all US Electric Utilities published by Professor Aswath Damodaran as of January 2023.

The Commission explains that the unlevered beta removes the impact of debt from the capital structure and is more accurate in measuring the volatility and performance of the asset relative to the overall market. Moreover, unlevered beta helps to determine how much did equity financing contributes to the company level of risk profile.

Proposed Decision No. 6

The Commission proposes to use Beta (β) value of 0.44 of the all-US Power Utilities as a proxy for DOMLEC.

Consultation Question No 6:

Do respondents agree with the Commission proposed* Beta (β) of 0.44 *for all US Power Utilities to be used as proxy beta value for DOMLEC? Please provide reasons.

7. Rationale to The Capital Asset Pricing Model (CAPM) Approach

The cost of equity using the CAPM method is given as $k = R_f + \beta(Rm)$

Where	R_f	the risk-free rate
	Rm	the market return
	β	this is beta which is the measure of systematic risk

In DOMLEC's submission to the IRC, DOMLEC stated *"combining the risk-free rate of 3.74% and a total market return of 12.01% with β estimates for the comparison group produces CAPM COE estimates ranging from 8.05% to 11.05% with an average of 9.17%. These raw estimates need to be adjusted to account for the additional risk associated with doing business in Dominica, as well as DOMLEC's small size relative to the comparison group."* The proposed cost of equity capital as calculated by DOMLEC is shown in *Table 7.* below:

Table 7.

Dominica Electricity Electric Services, Ltd.
Estimated Weighted Average Cost of Capital

	Balances	% of Capital Structure	After-Tax Cost	Weighted Cost (After-Tax)	Weighted Cost (Pre -Tax)
Equity (Government)	$ 47.2	27.8%	13.05%	3.63%	4.84%
Equity (DSS)	$ 18.1	10.7%	13.05%	1.39%	1.86%
Equity (Investor)	$ 25.4	15.0%	13.05%	1.95%	2.60%
Debt	$ 79.0	46.6%	5.00%	2.33%	2.33%
Total	$ 169.7	100.0%		9.30%	11.63%

The Commission noted the proposed cost of equity submitted by DOMLEC in June 2023 and following the review, recomputed the Weighted Average Cost of Capital (WACC).

The IRC therefore *proposes the Weighted Average Cost of Capital (WACC) of 9.82%* as per the CAPM approach, and the same is depicted in *Table 8.* below:

Table 8.
IRC's computation of the Proposed WACC for DOMLEC

WACC	
Cost of Debt	5%
Cost of Equity Unadjusted	7.43%
Nominal Risk-free rate	3.75%
Leverage Beta	0.727
Unleveraged Beta	0.44
Equity Risk Premium	5.06%
Country Risk Premium	3.08%
Adjusted Cost of Equity Post Tax	10.51%
Adjusted Cost of Equity Pre- Tax	14.02%
Debt level	46.60%
Tax rate	25%
WACC Post Tax Nominal	**7.90%**
WACC Pre Tax Nominal	**9.82%**

The Discounted Cash Flow (DCF) Approach

The DCF model assumes that the current market price of a company's stock is equal to the discounted value of all expected future dividends. Although there are different projections of future dividend growth used in this model, the one which is being proposed is the constant growth or the Gordon Model.

The cost of equity using the DCF method is $k = Do(1+g)/Po + g$

Where k is the cost of equity
Do is the present dividend
g is the constant growth
Po is the current market price

In arriving at the growth, "g", the average growth in earnings per share and dividend per share will be averaged. The current market price per share can be obtained either through the company's financial statements or the relevant stock market.

By obtaining the *current dividend* being paid which is "Do", then the cost of equity can be found.

Table 9 below illustrates DOMLEC's proposed cost of equity for the proxy group using the DCF methodology

Table 9

Average Price, Annual Dividend & Consensus Forecast and Historical Growth
Comparison Companies

				Consensus Growth Forecasts		
Symbol	Name	Two Week Avg Price	Current Annual Dividend	Year 1	Years 2-6	10 Yr Historical Growth
ALE	Allete, Inc.	$ 64.54	$ 2.60	4.50%	8.70%	3.52%
LNT	Alliant Energy Corporation	$ 55.10	$ 1.71	3.60%	5.55%	6.63%
AVA	Avista Corporation	$ 43.25	$ 1.76	23.90%	5.20%	4.26%
BKH	Black Hills Corporation	$ 69.60	$ 2.50	2.70%	5.40%	5.38%
CMS	CMS Energy Corporation	$ 62.98	$ 1.84	8.00%	8.17%	6.08%
HE	Hawaiian Electric	$ 41.25	$ 1.40	7.90%	1.30%	1.22%
IDA	IDACORP, Inc.	$107.40	$ 3.16	1.00%	3.40%	9.12%
OGE	OGE Energy Corporation	$ 39.73	$ 1.66	(8.50%)	1.90%	7.76%
OTTR	Otter Tail Power Corporation	$ 58.13	$ 1.65	(41.40%)	9.00%	3.30%
PNW	Pinnacle West Capital Corporation	$ 77.35	$ 3.46	(2.10%)	(3.96%)	5.12%
PNM	PNM Resources, Inc. (Holding Co.)	$ 48.86	$ 1.47	1.50%	5.22%	9.75%
POR	Portland General Electric Company	$ 48.82	$ 1.81	(1.10%)	1.39%	5.30%
WEC	WEC Energy Group, Inc.	$ 95.04	$ 3.12	5.00%	6.37%	10.03%

DOMLEC stipulated that*: "this data results in Discounted cash flow (DCF) cost of equity estimates ranging from 4.85% to 12.64% with an average of 9.19%. As with the raw CAPM result, these raw DCF estimates also need to be adjusted to account for the additional risks associated with doing business in Dominica and DOMLEC's small size relative to the companies in the comparison group.*

Since the unadjusted COE estimates using the CAPM and DCF methodologies were derived using data from utilities in the United States, an appropriate test of their reasonableness is to compare the results with recent regulatory decision for US utilities.

As detailed below in the table, Regulatory Research Associates reports that for the first half of 2020, the average cost of equity for vertically integrated US Utilities was 9.67%"as depicted in Table 10.

Table 10.

2020 Authorized ROE Decisions – US Electric Utilities
Vertically Integrated Companies
(Regulatory Research Associates)

H1'20 electric return on equity authorizations
Vertically integrated cases

Companies	State	Date of decision	ROE (%)	Decision type
Interstate Power and Light Co.	IA	01/08/20	10.02	Settled
PacifiCorp	CA	02/06/20	10.00	Fully Litigated
DTE Electric Co.	MI	05/08/20	9.90	Fully Litigated
Indiana Michigan Power Co.	MI	01/23/20	9.86	Settled
Virginia Electric and Power Co.	NC	02/24/20	9.75	Settled
Indiana Michigan Power Co.	IN	03/11/20	9.70	Fully Litigated
Duke Energy Indiana, LLC	IN	06/29/20	9.70	Fully Litigated
Southwestern Public Service Co.	NM	05/20/20	9.45	Settled
Avista Corp.	WA	03/25/20	9.40	Settled
Public Service Co. of Colorado	CO	02/11/20	9.30	Fully Litigated
Duke Energy Kentucky, Inc.	KY	04/27/20	9.25	Fully Litigated
Average			9.67	

Derivation of Cost of Equity

The Commission noted that DOMLEC's calculation of the cost of equity using both methodologies and the result are consistent to each other as shown in *Table 11*. below.

Table 11.

Unadjusted Cost of Equity Results
Summary and Recommended Weighted Average

Estimatation Method	Capital Asset Pricing Model	Two Stage DCF Model	Weighted Average
Min	8.05%	4.85%	6.45%
1st Quartile	8.55%	8.30%	8.42%
Average	**9.17%**	**9.19%**	**9.18%**
3rd Quartile	9.62%	10.82%	10.22%
Max	11.05%	12.64%	11.85%
Weight	50.00%	50.00%	100.00%

The Commission noted the views expressed by DOMLEC as highlighted in the Regulatory Research associates report for 2020. The Commission supports the view for the inclusion of the Discounted Cash Flow Model (DCF) to estimate the cost of equity for DOMLEC. Moreover, the Tariff Regime Decision for DOMLEC Re: 2009/004/D connotes that *"There are two widely accepted models for estimating the cost of equity capital. First, the Discounted Cash Flow (DCF) model assumes that the current market price of the common stock is equal to the discount value of all expected future dividends. The version of the DCF typically applied is the constant growth or the Gordon. Model. The second is the Capital Asset Pricing Model (CAPM) assumes that the cost of equity investment is equal to the risk-free rate of interest plus the risk premium on the market portfolio adjusted by the company- specific risk factor, beta. An average of the cost of equity derived from the DCF and CAPM model could then use used as the appropriate value oof Cost of Equity."*

The Commission deliberated on the Pre-tax WACC of 11.63% and Post Tax WACC of 9.30% as submitted by DOMLEC. Collaborative discussions ensued between IRC and DOMLEC.

DOMLEC confirmed its acceptance of the higher value of the proposed WACC re-calculated by the Commission as shown in *Table 12*. below and as cited on DOMLEC's letter to the IRC dated November 17, 2023.

Table 12.

WACC Range	IRC Proposed Rate	DOMLEC Proposed Rate
Cost of Debt	5%	5%
Cost of Equity Unadjusted	7.43%	9.18%
Nominal Risk-free rate	3.75%	3.74%
Leverage Beta	0.727	0.658
Unleveraged Beta	0.44	
Equity Risk Premium	5.06%	8.27%
Country Risk Premium	3.08%	3.08%
Small Company Size adjustment		0.79%
Adjusted Cost of Equity Post Tax	10.51%	13.05%
Adjusted Cost of Equity Pre- Tax	14.02%	17.40%
Debt level	46.60%	46.60%
Tax rate	25%	25%
WACC Post Tax Nominal	**7.90%**	**9.30%**
WACC Pre Tax Nominal	**9.82%**	**11.63%**

The Commission is of the view that a reasonable expectation for the cost of equity by investors in DOMLEC is to consider the proposed WACC post tax of 7.90% and the WACC Pre-tax of 9.82% to be applied to DOMLEC's regulatory asset base.

Proposed Decision No. 7

The Commission proposes that, based on the results of the application of CAPM methodology/approach, DOMLEC's cost of equity for the tariff period shall be:

(i) WACC post tax of 7.90% and
(ii) (ii) WACC Pre-tax of 9.82% be applied to DOMLEC's regulatory asset base.

Consultation Question No 7:

Do respondents agree to use the Commission proposed WACC post tax of 7.90% and WACC Pre-tax of 9.82%? Please provide reasons.

Conclusion

DOMLEC points out in its submission that the Edison Electric Institute report shows that in 2018 the average awarded cost of equity for US Electric utilities was 9.52%. Deloitte reports that the average awarded cost of equity in 2019 for US utilities was 9.64%. Similarly, Regulatory research reports that the average authorized cost of equity for vertically integrated US utilities for half of 2020 was 9.67%.

The Commission is of the view that the reasons and arguments made in this consultative document, a **WACC Pre-tax of 9.82%** and **WACC Post tax of 7.90%** reasonably balances the interests of the company and consumers and is consistent with the regulatory principles enunciated in the determination.

It also believes that it also exercised its duty consistent with Section 21 of the Electricity Supply Act (ESA) 2006, No. 10 of 2006 and acted in accordance with Section 22 of the said Act.

[END OF DOCUMENT]

APPENDICES

APPENDIX 1

Consultation Questions:

Consultation Question No 1:

Do respondents have any view regarding the proposed capital structure for DOMLEC should be set at. 46.6% debt 53.4% equity? If not, please explain why not?

Consultation Question No 2:

Do respondents agree to use as the cost of debt, the proposed interest rate of 5% base on DOMLEC's long term debt? If not, please explain?

Consultation Question No 3:

Do respondents have any views on the proposed use of the US 10-year Treasury Bond as of July 2023of 3.75% be used as the basis for fixing the risk-free rate for DOMLEC? If not, please explain.

Consultation Question No 4:

Do respondents agree to use the Commission proposed 30 US Power Utilities as the proxy utilities proposed by IRC or the 15 US Power Utilities recommended by DOMLEC. Please provide reasons.

Consultation Question No 5:

Do respondents agree that the small company size be excluded in the computation of cost of equity for DOMLEC but rather the country risk premium of 3.08% be factored in the calculation as well as equity risk premium of 5.06% be factored in the calculation, instead of 8.27%?

Consultation Question No 6:

Do respondents agree with the Commission proposed **Beta (β) of 0.44** *for the all US Power Utilities to be used as proxy beta value for DOMLEC? Please provide reasons.*

Consultation Question No 7:

Do respondents agree to use the Commission proposed WACC post tax of 7.90% and WACC Pre-tax of 9.82%? Please provide reasons.

APPENDIX 2

Summary of the IRC's Proposed Decisions

1) PROPOSED DECISION #1	DOMLEC's capital structure shall be 46.6% debt and 53.4% equity for the tariff period.
2) PROPOSED DECISION #2	DOMLEC's cost of debt shall be fixed at 5%.
3) PROPOSED DECISION #3	The risk-free rate to be the average of the ECSE 10 Year Treasury Bill rate at September 2014 – that is 3.75%.
4) PROPOSED DECISION #4	The Commission proposes to use the 30 listed US Power Utilities as the proxy utilities.
5) PROPOSED DECISION #5	The Commission proposes that small company size should be excluded in the computation of the cost of equity for DOMLEC but rather Country risk premium of 3.08% be factored in the calculation *as well as equity rick premium of 5.06% be factored in the calculation, instead of 8.27%.*
6) PROPOSED DECISION #6	The Commission proposes that Beta of 0.44 for the 30 US Power Utilities be used as proxy Beta for DOMLEC.
7) PROPOSED DECISION #7	The Commission proposes that WACC post tax of 7.90% and WACC pre-tax 9.82%.