

The Methodology for Renewable Energy Feed In Tariffs

**The basis for deciding purchase tariff for energy supplied by
Renewable Energy based Electricity Generation**

2026

This document defines the basic principles and the methodology for calculating feed in tariffs for renewable energy-based electricity generation and such methodology is applicable for purchasing renewable energy-based electricity from plants operating under Standard Power Purchase Agreements (SPPA), in accordance with the Sri Lanka Electricity Act No. 36 of 2024 (Amended).

Table of Contents

1.	Application of the Methodology	2
2.	Applicable technologies / fuels	2
3.	Tariffs for power plants	2
3.1.	Type of Tariff and Tariff Calculation.....	2
3.2.	Parameters	3
3.2.1.	Capital Cost	3
3.2.2.	Operation and Maintenance (O&M) Cost.....	4
3.2.3.	Plant Factor	4
3.2.4.	Annual Capacity Degradation Factor	4
3.2.5.	Fuel Cost	4
3.2.6.	Construction Period	4
3.2.7.	Cost of Debt (interest rate)	5
3.2.8.	Return on Equity	5
3.2.8.1.	Capital Asset Pricing Model (CAPM);.....	5
3.2.9.	Discount Rate.....	5
4.	Tariffs for Prosumers	5
4.1.	Type of Tariff and Tariff Calculation.....	5
4.2.	Parameters	7
4.3.1.	Capital Cost	7
4.3.2.	Operation & Maintenance (O&M) Cost.....	7
4.3.3.	Plant Factor	7
4.3.4.	Annual Capacity Degradation Factor	7
4.3.5.	BESS Parameters	7
4.3.5.1.	Annual Discharging Cycles and Depth of Discharge	7
4.3.5.2.	BESS Efficiency	8
4.3.6.	Cost of Debt	8
4.3.7.	Return on Equity	8
4.3.7.1.	Capital Asset Pricing Model (CAPM);.....	8
4.3.8.	Discounting Rate	8
5.	Tariffs for Power Plants with Battery Energy Storage Systems (BESS).....	9
5.1.	Type of Tariff and Tariff Calculation.....	9
5.1.1.	Dispatchable plants with BESS.....	9
5.1.2.	Non-dispatchable plants with BESS	10
5.2.	Parameters	10
5.2.1.	Capital Cost	11
5.2.1.1.	Dispatchable Plants with BESS.....	11
5.2.1.2.	Non-dispatchable Plants with BESS.....	11
5.2.2.	Operation & Maintenance (O&M) Cost.....	11
5.2.3.	Annual Capacity Degradation Factor	11
5.2.4.	Annual Discharging Cycles and Depth of Discharge	11
5.2.5.	BESS Efficiency	11
5.2.6.	Cost of Debt	11
5.2.7.	Return on Equity	12
5.2.7.1.	Capital Asset Pricing Model (CAPM);.....	12
5.2.8.	Discounting Rate.....	12

1. Application of the Methodology

This Methodology for Renewable Energy (RE) purchase tariff is approved by the Public Utilities Commission of Sri Lanka in terms of Section 29 of Sri Lanka Electricity Act, No. 36 of 2024 (Amended). This document may be cited as the Methodology for determining feed in tariffs for Renewable Energy based electricity generation and shall come into effect on the date on which this document is issued.

The Methodology applies for purchasing Renewable Energy based electricity from plants operating under Standard Power Purchase Agreements (SPPA), in accordance with the Sri Lanka Electricity Act No. 36 of 2024 (Amended). All such power procurements shall align with the technology specific capacity requirements declared in the approved Long Term Power System Development Plan.

The 'Prioritized Feed in Time' mentioned in this methodology may not be identical to the conventional 'Time-of Use (ToU)' durations.

2. Applicable technologies / fuels

1. Power plants
 - a) Mini-hydro
 - b) Wind
 - c) Biomass –Dendro; biomass fired plants that use grown fuel wood
 - d) Biomass- Agricultural/ Industrial Waste; biomass fired plants that use byproducts like paddy husk, saw dust, sugar cane bagasse, etc
 - e) Municipal Solid Waste
 - f) Waste Heat Recovery
 - g) Ground mounted Solar PV
 - h) Floating Solar PV
2. Prosumers
 - a) Rooftop Solar PV
 - b) Rooftop Solar PV with Battery Energy Storage System (BESS)
 - c) Prosumers with behind the Meter Battery Energy Storage System (BESS)
3. Power plants with Battery Energy Storage Systems (BESS)

3. Tariffs for power plants

3.1. Type of Tariff and Tariff Calculation

The RE based electricity purchase tariffs (Tariffs) will be calculated based on projected cash flow of a generic 1 MW plant over 20 years, including the Return on Equity (ROE). Tariff shall have three components;

1. Non-escalable component, which is constant for 20 years,
This component will include compensation for Return on equity and loan repayment.

This tariff component calculated would be subjected to the following adjustment, after 1 year of signing the SPPA. The adjusted tariff would be applicable from there onwards.

Adjusted Non Escalable Component

$$= \text{Non Escalable Component in SPPA} \times \left(70\% \times \frac{FX_2}{FX_1} + 30\% \times \frac{CCPI_2}{CCPI_1} \right)$$

FX₁ – LKR/USD exchange rate considered for calculation of signed SPPA tariff

FX₂ – LKR/USD exchange rate after 365 days of signing the SPPA

CCPI₁ – CCPI considered for calculation of signed SPPA tariff

CCPI₂ – CCPI after 365 days of signing the SPPA

2. Escalable O&M component,

A base O&M component will be approved considering existing market rates (no escalation assumed). Annual escalation rate for the base rate, will be published by the Commission considering CCPI and LKR/USD exchange rate variations. However, the Commission will adjust the cumulative escalation rate once in every three years taking into account the actual market rates.

3. Escalable fuel component

An annual fuel cost component will be approved considering existing market fuel prices, previous year’s approved fuel price and annual CCPI escalation. The approved fuel price would be applicable for all the SPPA based power plants operating with the same fuel type, irrespective of the Commissioning year.

All three components of the tariff are calculated as follows:

$$\text{Feed – in Tariff [LKR/kWh]} = \frac{\text{NPV of Cash Outflow}}{\text{NPV of Energy Generated}}$$

3.2. Parameters

All costs are to be estimated at the current year terms. The parameters related to the estimation of cash flows and energy generation are detailed below. Parameters developed for year 2026 are shown in annex 01 as an example.

3.2.1. Capital Cost

The total investment for a typical 1 MW power plant of each technology is to be established. The average size of a typical plant constructed in Sri Lanka has to be taken into consideration when arriving at per MW investment cost. The cost components of a typical plant would be; project development cost, infrastructure development cost, cost of civil works, cost of logistics, cost of electromechanical equipment, fuel handling system cost, interconnection cost, working capital and contingencies. These capital costs will be determined by a hybrid method based on market-based survey and index-based escalation model (50% market based + 50% indexed based). In case of indexed based method, local CIDA indices and international equipment cost indices could be used to update the capital cost on yearly basis.

3.2.2. Operation and Maintenance (O&M) Cost

Plant Operation and Maintenance cost shall be estimated as a percentage (%) of the capital cost per annum. This cost shall cover all costs (yearly) other than initial working capital, loan repayment and fuel costs of a typical plant of each technology.

3.2.3. Plant Factor

Plant factor shall be set for each technology to estimate annual electricity generated from each technology. Following Factors, among others, shall be considered when setting the plant factor.

- a) Optimal design of a typical power plant
- b) Existing resource potential in the country (consideration shall be given for tapping best sites in case of emerging technologies)
- c) Typical plant size and technology used in Sri Lanka
- d) Typical maintenance hours/ days per annum
- e) Historical plant factors of existing power plants of the same technology
- f) Plant model simulations considering optimal design and optimal use of resources

3.2.4. Annual Capacity Degradation Factor

The plant annual capacity degradation shall be considered under optimal design and standard operation and maintenance conditions. Actual capacity degradation of existing plants shall be used as a reference level.

3.2.5. Fuel Cost

Fuel cost (Rs. / kWh) is applicable for Biomass (Dendro and Agro/ industrial Waste technologies) and Municipal Solid Waste technologies only. Following factors, among others, shall be considered.

- a) Prevailing/ projected market price of the fuel (in real terms)
- b) Cost of production, in case of grown fuel wood
- c) Transport cost/ tipping fees of the fuel
- d) Moisture content and plant efficiency

3.2.6. Construction Period

Plant construction period is to be assumed as 2 years, while equal percentage of investment made in those two years (50% each) and the total equity investment is done during first year of construction. Interest During Construction (IDC) shall be capitalized for estimation of loan repayments and Return on Equity calculations.

E.g. If investment per MW is C and debt is 60%, following estimation shall be done for simplicity,

Table 1: Interest during construction calculation

Construction Year	1	2
Equity	40%	-
Debt	10%	50%
IDC	$C \times 10\% \times r\%$	$C \times (10\% + 50\%) \times r\%$

r = loan interest rate and the capitalized total investment cost per MW is $\{C + IDC_{\text{year 1}} + IDC_{\text{year 2}}\}$

3.2.7. Cost of Debt (interest rate)

Debt is assumed as a fraction of the capitalized total investment cost. Cost of debt shall be estimated based on 12-month Average of Weighted Prime Lending Rates (AWPR) published by the Central bank of Sri Lanka;

$$\text{Post tax cost of debt} = \{12 \text{ month average AWPR} + \text{Premium}\% \} \times (1 - \text{tax } \%)$$

The loan repayment period shall be taken as 6 years (typical loan period). The principal repayment is on equal instalments, and the interest is calculated for the outstanding balance. Annual loan repayment simulation could be used for simplicity.

In times where market rates show steep variations, the Commission may use one year forward rates for 6-year loan.

3.2.8. Return on Equity

A fixed Return on Equity (ROE) as a percentage of total equity is to be allowed, for equity taken as a fraction of capitalized total investment cost (typically taken as 40%). The percentage (%) return on Equity (ROE) shall be set based on the required rate of return calculated using the Capital Asset Pricing Model (CAPM). Thus, the approved ROE would ensure an Equity Internal Rate of Return (EIRR), equal to the Cost of Equity (COE) obtained with the CAPM.

3.2.8.1. Capital Asset Pricing Model (CAPM);

$$k_e = k_{RF} + (k_M - k_{RF}) \beta$$

k_e = required rate of return (COE)

k_{RF} = risk-free rate (use long-term (6/ 10-yr) Treasury bond interest rate- 5 year average)

$(k_M - k_{RF})$ = equity risk premium (ERP) – typical risk of a investment in the country compared to risk free investment.

β = Beta, which measures a project's risk (technology, energy forecast, revenue, etc). It represents a project's volatility relative to the overall market.

3.2.9. Discount Rate

The discount rate for the cashflows shall be estimated using the Weighted Average Cost of Capital (WACC) as shown below.

$$WACC = \frac{\text{debt}\% \times \text{post tax cost of debt}\% + \text{equity}\% \times \text{COE}\%}{100}$$

4. Tariffs for Prosumers

4.1. Type of Tariff and Tariff Calculation

The following types of prosumer options are considered for tariff determination.

1. Rooftop solar PV
2. Rooftop solar PV and BESS
 - a. Existing rooftop solar PV prosumer opting for BESS
 - b. Prospective prosumer
3. Prosumers with behind the meter BESS only (Applicable subject to legal permissibility)
 - Vehicle to Grid (V2G) option is also covered under this type

A constant purchase tariff is applicable over 20 years, for systems without BESS. The year 1 estimated escalation is applied to total SPPA period, and a single all-inclusive tariff is

determined. For systems with BESS, BESS inclusive tariff is applicable only for a period of 15 years. The remaining tariff component, if applicable, would be effective for a maximum of 5 more years.

The following feed in tariff components are required to be determined for setting prosumer tariffs.

Table 2: Feed in tariff components for prosumers

S/N	Cashflow Scenario	Feed in tariff component [LKR/kWh]	Calculation Formula
1	Rooftop Solar PV system with grid tied inverter	R ₁	$\frac{NPV \text{ of Cash Outflow for Scenario Under Consideration}}{NPV \text{ of Energy Generated}}$
2	Rooftop Solar PV system with hybrid inverter	R ₂	$\frac{NPV \text{ of Cash Outflow for Scenario Under Consideration}}{NPV \text{ of Energy Generated}}$
3	BESS with hybrid inverter	R ₃	$\frac{NPV \text{ of Cash Outflow for Scenario Under Consideration}}{NPV \text{ of Energy Discharged}}$
4	BESS excluding inverter	R ₄	$\frac{NPV \text{ of Cash Outflow for Scenario Under Consideration}}{NPV \text{ of Energy Discharged}}$

The cash outflow considers following elements.

- a. Return on equity
- b. Loan repayment
- c. Operation and Maintenance (O&M) cost

It is to be noted that the above cash outflows do not consider the cost of charging the battery for scenarios with BESS.

In case of BESS, the annual energy discharged is calculated in the following manner.

$$\begin{aligned}
 & \text{Annual Energy Discharged} \\
 &= \text{BESS Capacity (kWh)} \times \text{Standard Depth of Discharge} \\
 & \times \text{No. of Cycles Annually at the Standard DoD} \\
 & \times \text{Cumulative Battery Capacity Degradation}
 \end{aligned}$$

The summary of prosumer tariff determination is shown in the table below.

Table 3: Prosumer feed in tariffs

Applicant Type	Purchase Tariff at Prioritized Feed in Time ^[1] [LKR/kWh]	Purchase Tariff at Other Periods [LKR/kWh]
New Rooftop Solar PV	R ₁	R ₁
New Rooftop Solar PV and BESS	R ₄ + (R ₂ /Round Trip Efficiency ^[2])	Portion of R ₁ - For first 15 years R ₁ - For remainder of the SPPA period
New BESS only ^[3]	R ₃ + (R _{Charging} ^[4] /Round Trip Efficiency ^[2])	N/A
Existing Rooftop Solar PV prosumer applying for BESS	R ₃ + (R ₁ '/Round Trip Efficiency ^[2])	Portion of R ₁ ' – For first 15 years R ₁ '- For remainder of the SPPA period ^[5]

*Notes:

[1] 'Prioritized Feed in Time' would be as specified in the SPPA

[2] 'Round Trip Efficiency' refers to the overall charge/discharge efficiency of BESS

[3] Applicability of BESS only scheme is subjected to the legal permissibility

[4] R_{charging} would be applied as per the criteria described below.

[5] R_1 is the already signed Rooftop Solar PV feed in tariff

R_{charging} for BESS only prosumers is set at the approved 'Day Time' rate of the consumer tariff, offered by the utility. Accordingly, this component can vary over time.

4.2. Parameters

All costs are to be estimated at the current year terms. The parameters related to the estimation of cash flows and energy generation/energy discharge are detailed below. Parameters developed for year 2026 are shown in annex 01 as an example.

4.3.1. Capital Cost

The total investments are considered under the following capacity bands, for Rooftop Solar PV systems.

- a. Up to 5kW
- b. Above 5kW and up to 10kW
- c. Above 10kW and up to 40kW
- d. Above 40kW and up to 250kW
- e. Above 250kW

Where applicable, the same capacity bands are considered for systems inclusive of BESS. These BESS shall have a standard discharge duration of 4-hours, at the nominal capacity.

The capital cost will be determined through a market-based survey.

4.3.2. Operation & Maintenance (O&M) Cost

Plant Operation and Maintenance cost shall be estimated as a percentage (%) of the capital cost per annum, and this percentage could be varied during the SPPA period taking into account the age of the plant. This cost shall cover all costs (yearly) other than initial working capital and loan repayment of a typical plant.

4.3.3. Plant Factor

Plant factor shall be set to estimate annual electricity generated. Actual market data shall be considered when setting the plant factor along with the plant model simulations considering optimal design and optimal use of resources.

4.3.4. Annual Capacity Degradation Factor

The plant annual capacity degradation shall be considered under optimal design and standard operation and maintenance conditions. Actual capacity degradation of existing plants shall be used as a reference level.

4.3.5. BESS Parameters

4.3.5.1. Annual Discharging Cycles and Depth of Discharge

The number of annual discharging cycles, at the standard depth of discharge has to be defined.

4.3.5.2. BESS Efficiency

The round-trip efficiency of the BESS under optimal design and standard operating conditions has to be considered.

4.3.6. Cost of Debt

Debt is assumed as a fraction of the capitalized total investment cost. Cost of debt shall be estimated based on 12-month Average of Weighted Prime Lending Rates (AWPR) published by the Central bank of Sri Lanka;

$$\text{Post tax cost of debt} = \{12 \text{ month average AWPR} + \text{Premium}\% \} \times (1 - \text{tax}\%)$$

The loan repayment period shall be taken as 6 years (typical loan period). The principal repayment is on equal instalments, and the interest is calculated for the outstanding balance. Annual loan repayment simulation could be used for simplicity.

In times where market rates show steep variations, the Commission may use one year forward rates for 6-year loan.

4.3.7. Return on Equity

A fixed Return on Equity (ROE) is to be allowed for the term of the SPPA, for equity taken as a fraction of capitalized total investment cost (typically taken as 40%). The percentage (%) return on Equity (ROE) shall be set based on the required rate of return calculated using the Capital Asset Pricing Model (CAPM). Thus, the approved ROE would ensure an Equity Internal Rate of Return (EIRR), equal to the Cost of Equity (COE) obtained with the CAPM.

4.3.7.1. Capital Asset Pricing Model (CAPM);

$$k_e = k_{RF} + (k_M - k_{RF}) \beta$$

k_e = required rate of return (COE)

k_{RF} = risk-free rate (use long-term (6/ 10-yr) Treasury bond interest rate- 5 year average)

$(k_M - k_{RF})$ = equity risk premium (ERP) – typical risk of a investment in the country compared to risk free investment.

β = Beta, which measures a project's risk (technology, energy forecast, revenue, etc). It represents a project's volatility relative to the overall market.

4.3.8. Discounting Rate

The discount rate for the cashflows shall be estimated using the Weighted Average Cost of Capital (WACC) as shown below.

$$WACC = \frac{\text{debt}\% \times \text{post tax cost of debt}\% + \text{equity}\% \times COE\%}{100}$$

A debt-to-equity ratio of 60: 40 is considered for above calculation.

5. Tariffs for Power Plants with Battery Energy Storage Systems (BESS)

5.1. Type of Tariff and Tariff Calculation

Solar PV plants (Ground mounted & Floating) as considered under Clause 3 of this methodology, connected along with a Battery Energy Storage System (BESS) is considered here for feed in tariff determination. These plants are considered under the following arrangements.

1. Dispatchable plants with BESS
2. Non-dispatchable plants with BESS

The BESS contract is considered for a 15-year period. Accordingly, the BESS inclusive feed in tariff as described below is applicable for the first 15 years. The standalone power plant feed in tariff, as determined under Clause 3 of this methodology would be applicable for the remainder of the SPPA period.

5.1.1. Dispatchable plants with BESS

A constant capacity-based monthly purchase tariff is applicable for 15 years. Return on Equity (ROE) would be considered for whole 15-year period. The year 1 estimated escalation is applied to the whole period, and a single all-inclusive tariff is determined. The payments would be subjected to the availability of plant during the month.

The allowable lower capacity limit for dispatchable power plants with BESS would be as published by the Commission. The battery shall have a 4-hour discharge duration.

The tariff is calculated as follows:

$$\text{Feed – in Tariff [LKR/kW/month]} = \frac{\text{NPV of Cash Outflow}}{12 \times \text{NPV of Annual Plant Capacity}}$$

The cash outflow considers following elements.

- a. Return on equity
- b. Loan repayment
- c. Operation and Maintenance (O&M) cost

The above calculated feed in tariff would be subjected to the following adjustment, after 1 year of signing the SPPA. The adjusted tariff would be applicable from there onwards.

$$\text{Adjusted Feed in Tariff} = \text{Signed Feed in Tariff} \times \left(70\% \times \frac{FX_2}{FX_1} + 30\% \times \frac{CCPI_2}{CCPI_1} \right)$$

FX₁ – LKR/USD exchange rate considered for calculation of signed SPPA tariff

FX₂ – LKR/USD exchange rate after 365 days of signing the SPPA

CCPI₁ – CCPI considered for calculation of signed SPPA tariff

CCPI₂ – CCPI after 365 days of signing the SPPA

The payment to dispatchable power plants with BESS would be adjusted proportionally based on actual availability factor. The actual availability factor of BESS would be determined based on factors such as, actual capacity availability, actual dispatch availability, etc.

5.1.2. Non-dispatchable plants with BESS

Non-dispatchable renewable energy power plants with BESS would be offered a separate energy purchase tariff for the specified 'Prioritized Feed in Time'. The typical power plant tariff, as determined in accordance with the Clause 3 of this methodology, would be applicable during the other times. Accordingly, the determination of 'Prioritized Feed in Time' tariff for these plants is described here.

A constant purchase tariff is applicable over 15 years (during the 'Prioritized Feed in Time'). The year 1 estimated escalation is applied to total contract period, and a single all-inclusive tariff is determined.

$$\begin{aligned} & \text{Prioritized Feed – in Time Tariff [LKR/kWh]} \\ &= \frac{R_{\text{charging}}}{\text{Round Trip Efficiency} * } + \frac{\text{NPV of Cash Outflow for BESS}}{\text{NPV of Energy Discharged}} \end{aligned}$$

*Note: 'Round Trip Efficiency' refers to the overall charge/discharge efficiency of BESS

The battery charging tariff (R_{charging}) is set at the approved tariff for the standalone plant, as determined in accordance with Clause 3 of this methodology.

The cash outflow considers following elements, solely for BESS component of the plant.

- a. Return on equity
- b. Loan repayment
- c. Operation and Maintenance (O&M) cost

The annual energy discharged is calculated in the following manner.

$$\begin{aligned} & \text{Annual Energy Discharged} \\ &= \text{BESS Capacity (kWh)} \times \text{Standard Depth of Discharge} \\ & \times \text{No. of Cycles Annually at the Standard DoD} \\ & \times \text{Cumulative Battery Capacity Degradation} \end{aligned}$$

The BESS tariff component within the above calculated 'Prioritized Feed in Time Tariff' is subjected to the following adjustment, after 1 year of signing the SPPA. The adjusted tariff would be applicable from there onwards.

$$\begin{aligned} & \text{Adjusted BESS Tariff Component} \\ &= \text{Signed BESS Tariff Component} \times \left(70\% \times \frac{FX_2}{FX_1} + 30\% \times \frac{CCPI_2}{CCPI_1} \right) \end{aligned}$$

FX_1 – LKR/USD exchange rate considered for calculation of signed SPPA tariff

FX_2 – LKR/USD exchange rate after 365 days of signing the SPPA

$CCPI_1$ – CCPI considered for calculation of signed SPPA tariff

$CCPI_2$ – CCPI after 365 days of signing the SPPA

A similar adjustment is applicable for the remaining tariff component as well, in accordance with the Clause 3.1 of this methodology.

5.2. Parameters

All costs are to be estimated at the current year terms. The parameters related to the estimation of cash flows and energy generation/energy discharge are detailed below. Parameters developed for year 2026 are shown in annex 01 as an example.

5.2.1. Capital Cost

5.2.1.1. Dispatchable Plants with BESS

These BESS shall have a standard discharge duration of 4-hours, at the nominal capacity. The capital cost will be determined through a market-based survey.

5.2.1.2. Non-dispatchable Plants with BESS

The total investment only for BESS is considered under the following capacity bands.

- a. Below 250kW
- b. 250kW and above

These BESS shall have a standard discharge duration of 4-hours, at the nominal capacity. The capital cost will be determined through a market-based survey.

5.2.2. Operation & Maintenance (O&M) Cost

Plant Operation and Maintenance cost shall be estimated as a percentage (%) of the capital cost per annum, and this percentage could be varied during the SPPA period taking into account the age of the plant. This cost shall cover all costs (yearly) other than initial working capital and loan repayment of a typical plant.

5.2.3. Annual Capacity Degradation Factor

The BESS annual capacity degradation shall be considered under optimal design and standard operation and maintenance conditions. Actual capacity degradation of existing plants shall be used as a reference level.

5.2.4. Annual Discharging Cycles and Depth of Discharge

The number of annual discharging cycles, at the standard depth of discharge has to be defined.

5.2.5. BESS Efficiency

The round-trip efficiency of the BESS under optimal design and standard operating conditions has to be considered.

5.2.6. Cost of Debt

Debt is assumed as a fraction of the capitalized total investment cost. Cost of debt shall be estimated based on 12-month Average of Weighted Prime Lending Rates (AWPR) published by the Central bank of Sri Lanka;

$$\text{Post tax cost of debt} = \{12 \text{ month average AWPR} + \text{Premium}\% \} \times (1 - \text{tax}\%)$$

The loan repayment period shall be taken as 6 years (typical loan period). The principal repayment is on equal instalments, and the interest is calculated for the outstanding balance. Annual loan repayment simulation could be used for simplicity.

In times where market rates show steep variations, the Commission may use one year forward rates for 6-year loan.

5.2.7. Return on Equity

A fixed Return on Equity (ROE) is to be allowed for 10-year period, for equity taken as a fraction of capitalized total investment cost (typically taken as 40%). The percentage (%) return on Equity (ROE) shall be set based on the required rate of return calculated using the Capital Asset Pricing Model (CAPM). Thus, the approved ROE would ensure an Equity Internal Rate of Return (EIRR), equal to the Cost of Equity (COE) obtained with the CAPM.

5.2.7.1. Capital Asset Pricing Model (CAPM);

$$k_e = k_{RF} + (k_M - k_{RF}) \beta$$

k_e = required rate of return (COE)

k_{RF} = risk-free rate (use long-term (6/ 10-yr) Treasury bond interest rate- 5 year average)

$(k_M - k_{RF})$ = equity risk premium (ERP) – typical risk of a investment in the country compared to risk free investment.

β = Beta, which measures a project's risk (technology, energy forecast, revenue, etc). It represents a project's volatility relative to the overall market.

5.2.8. Discounting Rate

The discount rate for the cashflows shall be estimated using the Weighted Average Cost of Capital (WACC) as shown below.

$$WACC = \frac{\text{debt}\% \times \text{post tax cost of debt}\% + \text{equity}\% \times COE\%}{100}$$

A debt-to-equity ratio of 60: 40 is considered for above calculation.

Annex 01 - Parameters for the year 2026

To be completed