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இலங்கைப் பொதுப் பயன்பாடுகள் ஆணைக்குழு
PUBLIC UTILITIES COMMISSION OF SRI LANKA



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திகதி } 18th October 2022
Date }

Authorized officer
For License No. EL/T/09-002
Additional General Manager - Transmission
Ceylon Electricity Board,
Sir Chittampalam A. Gardiner Mawatha,
Colombo 02.

Re: Submission of the Draft Long Term Generation Expansion Plan 2023 - 2042

This refers to the letter dated 14th September 2022, received from Actg. General Manager with the submission of Long Term Generation Expansion Plan (LTGEP) 2023 - 2042 seeking the approval of the Commission.

Further to the information required through the Commission's letter (Ref: PUC/LIC/2022/TL/93) dated 03rd October 2022, the Commission also require following additional information in order to approve the Long Term Generation Expansion Plan 2023 - 2042 according to Section 43 of the Sri Lanka Electricity Act No. 20 of 2009.

Documents listed in the References section

1. National Demand Forecast 2023-2047, Transmission & Generation Planning Branch, CEB
2. Integration of Renewable Based Generation into Sri Lankan Grid 2023-2032, CEB

Financial models including cash flow calculation workings for NPV of each of the following scenarios of the planning study

1. Scenario 1: Achieving 70 % RE by 2030, maintaining 70% RE beyond 2030 and no coal fired plant additions throughout the horizon [NPV 18,872 MUSD]
2. Scenario 2: Achieving 70 % RE by 2030, attempt to further increasing RE share up to 80% by 2040 and no coal fired plant additions throughout the horizon
3. Scenario 3: Achieving 70 % RE by 2030, maintaining 70% RE beyond 2030, no coal fired plant additions throughout the horizon and considering cross border interconnection with India [NPV 18,883 MUSD]
4. Scenario 4: Achieving 70 % RE by 2030, maintaining 70% RE beyond 2030, no coal fired plant additions throughout the horizon and considering nuclear power development beyond 2040 [NPV 18,986 MUSD]
5. Scenario 5: Achieving 50% RE by 2030, maintaining 50% RE beyond 2030 and no coal fired plant additions beyond 2030 [NPV 17,792 MUSD]

6. Scenario 6: Achieving 60 % RE by 2030, maintaining 60% RE beyond 2030 and no coal fired plant additions beyond 2030 **[NPV 17,507 MUSD]**
7. Scenario 7: Achieving 60 % RE by 2030, maintaining 60% RE beyond 2030 and no coal fired plant additions throughout the horizon **[NPV 17,855 MUSD]**

Financial models including cash flow calculation workings for NPV of each of the following sensitivity scenarios of the planning study

1. Present Value of costs of Scenarios for Fuel Price Sensitivities (High fuel price) **[NPV 17,792 MUSD]**
2. Present Value of costs of Scenarios for Fuel Price Sensitivities (Low fuel price) **[NPV 17,507 MUSD]**
3. Sensitivity of Cost Projections for Base Case (70% RE) **[NPV 16,254 MUSD]**
4. Sensitivity of Cost Projections for Scenario 5 (50% RE) **[NPV 15,457 MUSD]**
5. Sensitivity of Cost Projections for Scenario 6 (60% RE) **[NPV 15,300 MUSD]**

Demand projection

1. Projection of the following key variables for the 2022-2043 period for demand projection
 - a. GDP per capita
 - b. Industrial sector gross value added
 - c. Service sector gross value added
2. Net loss projection for 2035-2043 and the basis for the same
3. Calculations and basis for Figure 3.6a and Figure 3.6b

General

1. Calculations for FSRU regassification and pipeline cost
2. Basis for selecting the JCC 12.5% as the applicable natural gas cost for Sri Lanka
3. Detailed capex and opex costs and basis for these values for thermal and renewable energy projects (Annex 4.1 and Annex 5.3).

The above information shall be submitted before 26th October 2022.



Damitha Kumarasinghe
Director General