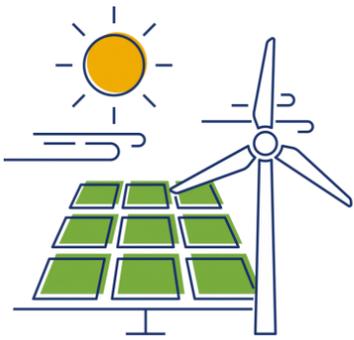


LONG TERM GENERATION EXPANSION PLAN 2023-2042

Ceylon Electricity Board



ACHIEVING 70% SHARE FROM RENEWABLE ENERGY



Approximately **500 MW** of Solar PV and **150 MW** of Wind capacity additions are expected annually.

By 2042, the following cumulative capacities are proposed:

- Solar PV - **10,739 MW**
- Wind - **3,573 MW**
- Hydro - **2,271 MW**
- Biomass - **380 MW**

ENERGY STORAGE AS A KEY ENABLER



1,400 MW Pumped Hydro Storage development by 2032

3,365 MW Battery Energy Storage development by 2042

To be used for energy shifting, frequency regulation and other ancillary services.

Other multiple key enabling factors are also required to achieve this target



RE Desk

Monitoring and supervisory control of RE plants with forecasting



Grid Code

Review of Interconnection, operation and planning codes



Flexible Thermal Generation

Plants with fast startup, fast ramping and deloading capabilities



Lands and Transmission Corridors for RE Zones

To be identified in advance and secured as a national priority



Distributed Energy Resources (DER)

Facilitating accelerated growth of DERs (especially rooftop Solar PV)



Demand Shifting

Introducing a Time of Use (TOU) tariff and shifting weekday demand to Sunday

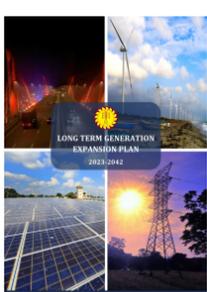
HIGH INITIAL INVESTMENT REQUIREMENT

Average annual investment of **1.4 USD Billion** for generation and storage capacity additions



CARBON EMISSION REDUCTION

The average CO₂ emission factor will be reduced from **0.5 kg/kWh** to **0.2 kg/kWh** by 2042



The full report of Long Term Generation Expansion Plan 2023-2042 could be downloaded at:

<https://ceb.lk/publication-media/planning-documents/en>