



Electricity Generation Cost

Cost of all non-hydro generation options based on the recent tenders, power purchase agreements and the most recent cost estimates by the Ceylon Electricity Board (CEB)

Plant	Total Cost (LKR/kWh)	Source
Wind (10 MW at Chunnakam)	10.07	Tender offered (28/07/2016) for the 10MW wind plant at Chunnakkam
Solar (10 MW at Vavunathivu)	11.86	Tender opened (03/09/2017) for the 10MW solar plant at Vavunathivu
Natural Gas Fired Combined Cycle (300 MW at Kerawalapitiya)	14.99	Tender opened (21/09/2017) for the new 300MW combined cycle plant at Kerawalapitiya, first two years on oil and Natural Gas at 10 USD/MMBtu - need to be adjusted for current price of 8.4 USD/MMBtu as recommended by Petroleum Resources Development Secretariat. Cost would be less than 14.99 LKR/kWh, if run full time on Natural Gas.
Coal (900 MW at Norachcholai)	18.60	Bulk Supply Tariff submission by CEB for the period Oct-Dec 2017, including finance cost
Oil (Average Cost of all existing oil plants)	22.86	Last 12 month average costs of all existing oil fired power plants
Coal (500 MW sampur – signed PPA)	33.41	Sampur (500MW) - USD 1,786/ kW (as per CEB generation Plan) Investment Plant Factor 63% (actual for 2015 and 2016 for Norachcholai plant)

Brief Analysis

Wind, Solar and Natural Gas

Latest tender prices are well below the average sales revenue of CEB (17.43 LKR/kWh). Hence adding more wind, solar or Natural Gas fired plants, at the prices quoted, will lower the cost to the consumers, and provide relief for the financial burden of the utility/ Government. Despite identification of large capacity requirements (635 MW Solar, 485 MW Wind and 1,350 MW of Natural Gas) between 2018 -2025, in approved Least Cost Generation Expansion Plan, there is very little progress in tendering these plants.



Coal Total cost at Norachcholai plant is 18.60 LKR/kWh, which is higher than 17.43 LKR/kWh average sales revenue of CEB. Also this production cost is excluding environmental costs and cost of long Transmission lines.

Way Forward

There is an urgent requirement to tender for the procurement of electricity from generation plants identified in the Least Cost Long Term Generation Expansion Plan 2018-2037; Renewable energy and Natural Gas fired power plants, are the cheapest according to the latest tenders floated by CEB. Therefore, immediately action must be taken to tender the plants identified in the Least Cost Long Term Generation Expansion Plan 2018-2037.