MINISTRY OF POWER

Progress 2021

Programme 2022

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Hon. Minister's Message

It gives me great pleasure to deliver this message as the Minister of Power in the "Progress Report 2021 and future programs 2022" of this Ministry. I would also like to express my gratitude in the efforts and the leadership of the former Minister, Dullas Alahapperuma, who served as the cabinet minister for the most part of the year, secretary and the officials of the Ministry and the institutions come under the purview of the Ministry who dealt constructively during the unprecedented global pandemic and its impacts on the global economic situation. I must also pay tribute with great appreciation and respect to frontline officials of the CEB and LECO for their tireless efforts in order to accomplish their tasks and to facilitate the customer needs by giving uninterrupted service and also dedicating their time and efforts to expedite the process of implementation of ongoing and new projects even during the prolonged lockdown and pandemic situation.

Power and Energy are two essential and fundamental necessities for the economic development of the country and improving the quality of the life of people in Sri Lanka. During last few decades, the country was highly depended on energy generated by hydropower and then thermal oil power sources added into the generation mix. Since the generation of power using thermal sources and fossil fuels has become very expensive and environmentally unfriendly, we started venturing into generating power using alternative modalities. With heighten international regulation on coal and the commitment by His Excellency the President Gotabaya Rajapaksha"s "70% power by Renewable Energy" mandate we became a co-sponsor of the "No New Coal" compact during the COP26. Therefore, we are preparing ourselves to achieve these targets by giving priority to existing and new renewable energy projects such as LNG, major/mini hydro, solar, wind and bio mass projects to achieve our power needs. In order to achieve this monumental task we have designed a medium and long term plan to utilize freely available wind and solar resources while inviting serious investors and EPCs to join hands with us to accomplish this highly ambitious and technical target(s).

In this report, we place before you the most important achievements of our organizations during a year of challenge. The Ministry has made every effort to live up to its mission and continue to deliver quality support to customers and also achieve the government targets in coordination with all the institutions that come under the purview of the Ministry. Fortunately, we were able to achieve good outcomes through the tireless and continuous support and cooperation of our officials.

Though the country has achieved 99.9% electrification, it was identified that there are 95,297 Families who have not yet obtained electricity connections due to their inability to bear the connection charges. Therefore, the "Deyata Eliya" scheme was commenced as a budget proposal by allocating Rs.750 million to provide free electricity connection for them. In terms of the achievement, out of 95,297 households, electricity connections have been provided to 24,547 families and some areas have been considered to provide rooftop solar facilities and 22.78 million has been released to construct 2 distribution lines in the Bogaswewa area by using this allocation.

The commencement of construction of the first 300 MW Liquidated Natural Gas (LNG) power plant which is expected to be completed in 2023 in Kerwalapitiya and the first mega scale 100 MW wind power park in Mannar can be considered as the major achievements of 2021. There are two more LNG projects and the LNG terminal facilities consisting of FSRU which are going to be established in Kerawalapitiya and commence the commercial operations within the next three years.

Finally, I am grateful to all our major development Partners who extended their continuous support to implement power and energy sector projects.

Hon. Minister GAMINI LOKUGE
Ministry of Power

Secretary's Message

With the COVID-19 pandemic severely impacting the social and economic activities of the entire planet, 2019 through 2021 have been the most challenging years in recent history. During this unprecedented emergency, the Ministry of Power and the institutions coming under its purview have played and continue to play a critical role in delivering the essential service of power supply to our communities nationwide. In addition to attending day to day functions, despite overwhelming challenges set forth by this pandemic, we have not left our development projects stalling. All necessary steps have been taken to expedite implementation of development projects.

This report portrays the progress made on the ongoing power sector development projects from January 2021 to September 2021, and the key projects in the sector which are expected to commence in 2022. While recognizing the ability to ensure uninterrupted power supply throughout the country during the pandemic as the biggest achievement marked during the period under review, the start of construction of the 300MW Natural Gas Power Plant in Kerawelapitiya and the commencement of commercial operations of the Thambapavani Wind Power Park in Mannar, significant milestones of the country's development agenda, shall be cited as no smaller achievements. There has been mission -critical transmission and distribution network development work completed during this period, including the construction of new grid substations enabling our systems to absorb more renewable energy. that helped the absorption of more renewable energy to the grid.

As per the current Government Policy, the Ministry is at the challenging task of driving the power sector towards the target of generating 70% electricity through renewable energy sources by 2030. Our plans show that this requires doubling the present RE installed capacity. Our national grid is required to be converted to a centrally controlled, well sensed, unified smart grid. While greenifying the grid, we are challenged with the task of not only sustaining but improving most desired grid characteristics such as system stability, reliability, and operational efficiency. Our engineering designs towards this stable reliable and green grid increasingly convince us that the additions of grid scale energy storages need to be treated in great importance. I have no doubt that my Ministry together with the State Ministry of Solar, Wind & Hydro Power Development Projects can reach the set green goals with the technical knowhow and brilliance of the institutions coming under the purview of two Ministries.

I take this opportunity to convey my utmost gratitude to the Power Sector workforce who worked untiringly for the betterment of the country, during hard times

Ms. Wasantha Perera

Secretary

Progress 2021 & Programme for 2022

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1. Introduction, Vision & Mission

Electricity is recognized as the lifeblood of modern society and a critical infrastructure for rapid economic and social development. Recognizing the vital role of electricity, the Government has established two ministries, Ministry of Power and State Ministry of Wind, Solar and Hydro Power Generation Projects Development, to take on the responsibilities of the power Sector. The country has reached 100% electricity accessibility and almost 99.9% electrification. Due to the effects of the COVID 19 Pandemic experienced in 2020, several major power sector developments which had been scheduled to be commissioned in 2021 have been delayed by several months.

The commissioning of Sri Lanka's first mega scale 100 MW wind power park in Mannar on May 6, 2021 and the commencement of the construction of Sri Lanka's first 300 MW Liquidated Natural Gas (LNG) power plant on 5 Match 2021 are the major achievements in 2021 despite the COVID 19 Pandemic.

The current Government has set an ambitious target of generating 70% of the electricity demand of the country using renewable sources by 2030 and achieving carbon neutrality by 2050. In relation to these mandates, the Government has also decided not to build any new coal fired power plants in the future. In order to achieve these targets, the Ministry of Power has identified the investment needs of the transmission network necessary to ensure its reliability and stability. To realize the Government's vision, ongoing projects portfolio aimed at renewable energy development will be enhanced.

Vision

A sustainably Developed Sri Lanka

Mission

Providing leadership in the areas of Power through electricity generation, transmission and distribution, supply, procurement of coal for power plants and electricity related project execution.

2. Subjects and Key Functions Assigned to the Ministry

According to the Extraordinary Gazette No. 2196/27 published on October 6, 2020, the Ministry of Power has given the following special priorities to accomplish under the relevant subjects and functions within the purview of the Ministry.

a. Subjects & Functions

Providing policy guidance to State Ministry, and formulating policies in relation to the subject of Power, in conformity with the prescribed Laws, Acts and Ordinances, implementation of projects under the national budget, state investment and National Development Programme, and formulating, implementing, monitoring and evaluating policies, programmes and projects, related to subjects and functions

for "Assuring low-cost power generation and efficient distribution" based on the national policies implemented by the government, and in accordance with the policy statement "Vistas of Prosperity and Splendour".

b. Special Priorities

- Developing a Smart Grid to ensure maximum efficiency and utility of the power generated.
- Equilibrating the mix of renewable energy power plants, thermal power plants, and natural power plants, thereby reducing the cost of power generation and eliminating uncertainties that may occur.
- Implementing the power generation plan based on long-term requirements.
- Improving the efficiency of the power transmission and distribution process.
- Minimizing the cost of power in order to maintain the international competitiveness of the industrial production process.

3. Institutions under the purview of the Ministry

CEB: Established by Act No.17 of 1969. It is empowered to generate electrical energy, transmit it, and distribute it to all categories of consumers and to collect revenue as per the tariff approved by the Public Utilities Commission of Sri Lanka (PUCSL)

Lanka Electricity Company (Private) Limited (LECO): A subsidiary of CEB with a shareholding of 54.84%, and with a minority shareholding of the Treasury at 43.56%, the Urban Development Authority at 0.79% and the Local Authority at 0.81%.

LTL: A subsidiary of CEB with a shareholding of 63%, with a minority shareholding of its employees (37%)

Lanka Coal Company (Pvt) Ltd.: A subsidiary of CEB with a shareholding of 60%, with a minority shareholding by the Treasury (20%), Sri Lanka Shipping Corporation (10%), and Sri Lanka Ports Authority (10%)

Sri Lanka Energies (Pvt) Ltd: A subsidiary of CEB with a 100% shareholding.

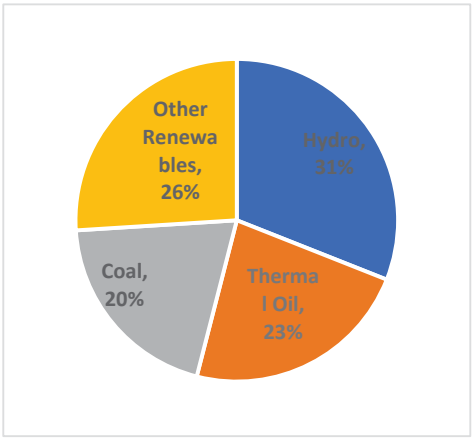
4. Power Sector Status – January – September 2021

- **Installed Capacity**

The Present total installed capacity of the National Grid (Sep.2021) is 4,587 MW, which consists of 57% renewable energy sources and 43% fossil fuels. Out of the fossil fuel portion, 20% comes from the coal and rest from fuel oils.

Hydro is the main source of renewable energy in the system, which has a 31% share of in the total installed capacity. Other renewable sources such as wind, solar, solid waste, dendro and biomass are also used in power generation and have a 26% share.

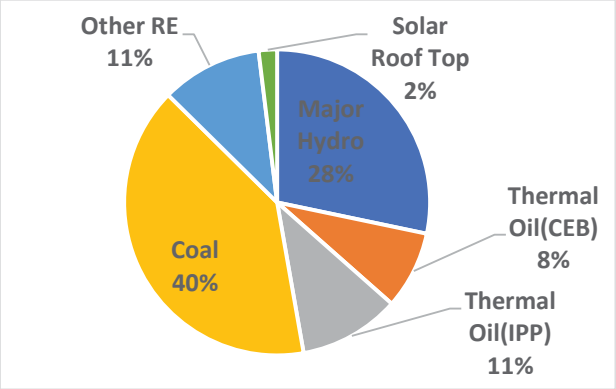
Source		Capacity (MW)	%	No. of Power Plants
Major Hydro		1,399	31%	17
Thermal				
	Oil (CEB)	604	13%	9
	Oil (IPP)	457	10%	3
	Coal	900	20%	1
Renewable (Other Renewables)				
	Mini Hydro	425	18%	213
	Wind	248		18
	Solar (Ground Mounted)	91		45
	Dendro & Biomass	43		12
	WTE	10		1
	Solar Roof top	410	8%	
Total		**4,587**		**319**



Total Installed capacity (Sep-2021)

- **Power Generation**

Total gross power generation for, from January to early September 2021, was 11,055 GWh. 41% of power was generated using renewable energy sources, which consisted with 28% Major Hydros and 13% Other Renewables (Wind, Ground Mounted Solar, Biomass, and Solar Roof Tops). 59% of the generation mix came from thermal sources, consisting of 40% share from coal and 19% from thermal oil.



Total Generation
(Up to early Sep. 2021)

4.1 Electricity Demand and Electricity Consumer Growth

Demand for electricity is growing at a rate of about 5.5% per annum, while peak demand has been growing at a rate of 3.7% per annum. In 2020, the average daily demand for energy was somewhat lower, which was around 40 GWh due to the Covid 19 pandemic. However, the reported average daily demand during this year was around 44GWh.

The maximum demand recorded from January to September 2021 was 2,801.62 MW as against 2,717.46 MW in 2020. The forecasted electricity demand for 2022 is 16,741 GWh, and expected growth is 5.8%

The total number of electricity consumers in the country as at early September 2021 was 7,471,921. This was 7,216,933 at the end of 2020. Accordingly, 254,988 new connections have been provided during 2021 up to August. The numbers of consumers coming under different categories are as follows.

Electricity Consumer Base (Up to August 2021)		% Share
Domestic	6,434,455	86
Religious entities	45,719	0.6
General Purpose	907,019	12
Industrial	69,914	0.9
Government	9,423	0.01
Hotel	537	0.01
Agriculture	1,280	0.02
Bulk+ Street Light.	3,574	0.05
Total	**7,471,921**	

5. Progress in Power Sector during 2021

5.1 Electricity Generation Expansion

New generation projects are implemented as envisaged in the Least Cost Long-Term Generation Plans (LCLTGP)of CEB in order to cater to the growing electricity demand in the country. The power generation is governed by the following three policy initiatives.

- Achieve 70% of the energy generation for electricity is through renewable sources by 2030
- Carbon neutrality by 2050
- No new coal power plants established

The new LCLTGP is being prepared by the CEB, taking into consideration the above policies.

The following generation projects which are being implemented at present and they are in different stages of implementation.

A) Thermal Power Generation

1. Liquefied Natural Gas (LNG) Power Plants

- **First LNG Plant of 300MW in Kerawalapitiya**

The ground breaking for the construction of this power plant was held on 5th March 2021 by the developer, Lakdanavi Limited. Currently, construction is ongoing. The CEB has signed the Power Purchase Agreement with the developer in July 2021. It expects to complete constrictions by mid-2023.

- **Second LNG Power Plant of 300 MW in Kerawalapitiya**

CEB has invited the Request for Proposals (RfP) to select a suitable investor and it will be closed in November 2021. Currently, the land procuring process is in progress. It is expected to commence the commercial operations of the plant in October 2024.

- **Third LNG Power Plant of 300 MW in Kerewalapitiya**

An Environment Impact Assessment (EIA) for the development of the land has been completed. The EIA was opened for public comments. CEB is discussing with National Thermal Power Corporation (NTPC), India to form a Joint Venture. The Articles of Association of the JV Company is being finalized.

- **Infrastructure Deployment for LNG Supply**

To facilitate the transition to LNG, CEB has invited international competitive bids for LNG terminal facilities consisting of a FSRU on a build-own-operate (BOO) basis and a delivery pipeline on a build-operate-transfer (BOOT) basis. The FSRU with adequate storage and regasification capacity will be moored around 5 km offshore of Kerawalapitiya. Financial Proposals were opened and evaluations are being done. It is expected commence the commercial operations in early 2024.

1. Gas Turbine Power Plant (3X35MW) at Kelanitissa

Existing turbines at the plant will be replaced with new gas turbines to restore electricity supply to Colombo City during emergencies and to supply peak power. The total estimated cost of the project is 90 USD Million. A tender process is under way for the 'supplier credit scheme'.

B) Renewable Energy Generation

1. Hydro Power Generation Projects

- **Broadlands Hydropower Project – 35 MW**

The Broadland Hydropower Project is the first large scale hydropower plant which obtained Clean Development Mechanism (CDM) registration in Sri Lanka. The expected Annual Energy generation of the project is 126 GWh. The total estimated cost of the project is USD82 million. 97% of the project has been completed and the plant is expected to commission in November 2021.

- **Uma Oya Hydro Power Project -120 MW**

Uma Oya Multi-Purpose Development Project is being implemented by the Ministry of Irrigation in association with the CEB. The installed capacity of the power plant is 120 MW (2x60MW) and the expected annual energy production is 290 GWh. The total estimated cost of the project is USD 530 million. Present construction progress of the project is 96% and expected to be commission during first quarter of 2022.

- **Moragolla Hydro Power Project – 31.5 MW**

This project is implemented with a loan from the Asian Development Bank (ADB). The Total estimated cost of the project is USD 114 Million. The expected annual energy generation of the project is 100 GWh and its total installed capacity is 31.5 MW. Currently, 29% of the constructions has been completed. It is expected to commission the project towards end of 2023.

- **Seethawaka Ganga Hydro Power Project – 14 MW**

  This project is planned to be implemented as two small hydro power plants having a capacity of 7 MW each. Sri Lanka Energies, which is a subsidiary of CEB, will be implementing this project, which is expected to be completed by mid-2023.

- **Thalpitigala Hydro Power Project – 15 MW**

  Thalpitigala Hydro Power Development Project is being implemented by the Ministry of Irrigation in collaboration with CEB. Land acquisition activities are in progress. The Power plant is expected to commission in 2024.

2. Solar Power Generation Projects

- **Solar Rooftop Programme**

  The rooftop solar programme was introduced in 2016 to help different segments of the community to join renewable energy-based power generation.

  In 2019, the Government introduced a low-interest loan scheme with the support of a USD 50 million loan from the ADB for domestic, industrial, and commercial establishments to access funds for up to 5kW solar rooftop systems. At present, 44 MW was added to the Grid through the ADB funded solar roof top programme and total capacity added as at October 2021 was 410 MW. Total number of systems are 34,219.

- **Small Scale Ground Mounted Solar Power Plants (35X1 MW and 70X 1MW)**

  Under these two projects, a total capacity of 105 MW ground mounted solar power plants will be developed as 1 MW small plants through Private Investments. Projects for 40 MW have already been completed and connected to the National Grid (29 MW from 35X1 MW Project and 12 MW from 70X1 MW Project). A few plants with a total capacity of 14 MW are under construction and expected to be completed by the end of this year.

  A 10 MW Solar Plant in Pollonnaruwa (Kaduruwela) will be implemented with aloe vera cultivation. The Tender was awarded in 2020 and expect to be commissioned into operations by 2022.

- **1-10MW Solar Power Plants (total of 147 MW)**

  A total of 147 MW of solar power projects with 1-10 MW each were selected as private investments on 2nd March 2021 and tenders were awarded for projects having 84 MW. Provisional approval of SLSEA was issued for 54 MW and expected to commence commercial operations in September 2022.

- **2 x 10 MW of Solar Power Plants (Valachcheina & Vavunatheu)**

  Project developers, has signed a Power Purchase Agreement with CEB. The new site was proposed for Valachchena by the developer. It is expected to commission the projects by the second quarter of 2022.

- **75 kW X 7,000 Ground Mounted Solar Power projects "Gamata Balagarayak"**

  This project was initiated with the objective of adding a total capacity of 525 MW to the national grid through local investors during the period 2021-2023. It is expected to generate at least 10,000 direct jobs and 20,000 indirect jobs through this programme. Tenders were awarded to construct such 155 projects in the first phase. It is expected to commence the second phase of the programme in November 2021.

- **Solar Power Projects under the USD 100 Million loan - Indian Line of Credit.**

  Rooftop solar on Government buildings ($ 85Mn), religious organizations ($10mn) and floating solar pilot projects ($5 mn) under the facility.

  The Loan Agreement with India was signed on June 16, 2021. Currently, the Selection process of Indian Consultants for the preparation of the Detailed Project Report is being conducted. SLSEA identified 2,377 project sites of Government buildings where technical studies are being done and trained 180 officials from the Defense Ministry for Technical Studies and Monitoring activities. It is expected to install 120 MW of solar capacity.

- **100 MW Siyambalanduwa Solar Power Park**

  The project preparatory work such as Environmental Impact Assessment (EIA), land demarcation is completed and it is expected to call Requests for Proposals. Upgrading works of the Madagama- Ampara Transmission line, which is needed for power evacuation of this project, have been commenced.

- **Pooneryne Hybrid RE Park - 150 MW Solar**

  Acquisition of necessary lands for the first phase and Environmental and Social Impact Assessment are in progress.

3. Wind Power Generation projects

- **100 MW Mannar Wind Power Park – Thambapawani**

  Sri Lanka's first large scale wind farm is the Thambapawani Wind Farm, which is located on the southern coast of Mannar Island was built with a loan from the ADB and was commissioned on May 6th 2021. The project comprises 30 state-of-the-art wind turbines, each rated at 3.45 MW, and the total installed capacity of this wind farm is 103.5 MW. This project has been built to exploit the major monsoonal wind systems in Sri Lanka. It is expected to generate 400 GWh of electricity annually. It generated 204 GWh of power up to August 2021.

"Thambapawani" Wind Park in Mannar

Commissioning of the Wind Park

- **20 MW new additions in Mannar**

  The savings from ADB loan for the Thambapawani Project will be utilized to establish a 20MW wind plant in the same location and is expected to award a contract in early 2022.

- **Small Scale Wind Power Plants - (60 MW) (1-10MW each)**

  A total capacity of 60 MW (1-10 MW wind plants) wind power plants is expected to be developed in areas such as Mannar, Madampe, and Trincomalee by using private investments. Trincomalee & Mannar wind tenders were awarded.

  Initial activities have been commenced for 10MW of wind power plants in Mannar.

- **100 MW Mannar Wind Power Park- Second Phase**

  A feasibility study, a bird Study and a social impact assessment are being conducted.

  It is expected to complete in 2024.

- **The 100 MW Mannar Wind Power Park – Third Phase – Mullikulam Wind,**

  This 100 MW will be developed by CEB, and they have obtained Provisional Approval from the SLSEA to implement this project. It is expected to commence an environmental and social impact assessment. This will be completed by 2024.

- **The 240 MW Poonaryne Wind Power Park**

  As the first phase, the land acquisition process to implement 100 MW is in progress. Environmental and Social Impact assessment is in progress. It is expected to complete the first phase in 2024.

4. Mini Hydro Power Plants

Two Mini Hydro Power Plants (3.6 MW and 1.4 MW) having a total capacity of 5 MW are under construction and expected to be commissioned before the end of 2021.

Six mini–hydro power plants having 13 MW are under construction and expected to be commissioned by 2022.

5. Biomass Power Plants & Solid Waste to Energy (WTE) Power plants

- A total of 10 MW will be added to the national grid by 2023 through Biomass energy power plant.
- 10 MW Waste to Energy plant in Muthurajawela was commissioned and commenced commercial operation on February 18th 2021.

5.2 Electricity Transmission and Distribution Development

The Transmission Network is consisting of 799km of 220kV transmission lines and 2,361 km of 132kV lines. There are 79 Grid substations in the network and 134 primary substations. Entire operations of the transmission network is carried out by CEB. Construction of the Nawalapitiya and Ragala new grid substations and related transmission lines was completed and energized in 2021. It was an important step to absorb the renewable energy developed in the area.

The Distribution Network consists of 33,138.27 km of 33kV lines, 2,448 km of 11 kV lines and 150, 169 km of low voltage lines and 33,476 Distribution Grid Substations.

With an objective of absorbing more energy generated through renewable sources efficiently into the power system, a small scale Smart Grid pilot project with solar and battery storage technologies is currently under construction and expected to be completed by February 2022. Implementation of the Smart Meter Data Center to operate as the central control center for monitoring all the smart grid devices installed in LECO is under construction and will be completed by the end of November 2021.

An enhanced distribution management system has been implemented to enhance the quality of electricity services and all electricity consumer services are provided online through the Customer Services Portal of the Ceylon Electricity Board and Ceylon Electricity Company (LECO).

Transmission network developments are carried out frequently, to ensure reliable quality and uninterrupted power supply, as well as to absorb more renewable energy into the system. Most of these developments are done with the assistance of the ADB, JICA and AFD. There are 20km of 400 kV transmission lines, 691km of 220 kV lines, and 585km of 132 kV lines that will be completed by implementing ongoing projects.

Currently, technical and commercial losses of our power system have been reduced to 8.35% from 9%. The following transmission and distribution projects are being conducted in the period under the Monitoring of the Ministry.

	Project	Funding	Progress	Completion Date
1	**Renewable Energy Absorption Transmission Development Project** Construction of new Grid Substations at Maliboda, Wewalwatta, Nawalapitiya and Ragala. Construction of related new 132kV Transmission lines	AFD	Completed in 23 Jun. 2021	Already completed
2	**Transmission Infrastructure Capacity enhancement** Construction of Kappalthurai 220/132 kV GSS and Augmentation of Kerawalapitiya, Katunayake, Trincomalee GSS	ADB	96% completed	30 November 2021

	Augmentation of New Anuradhapura Gss and Construction of Kesbewa, Kaluthara Old Anuradhapura GSS	AFD	89% completed	30 Nov.2021
	Construction of 132kV Transmission lines in Kappaithurai, Kalutara,Kesbewa and Old Anuradhapura	AFD	Completed on 15.03.2020	Already completed
3	Hambantota 220kV Grid Substation development	ADB	92% completed	30 November 2021
	Construction of New Polpitiya - Hambantota 220kV, 150km Transmission line		75% completed	20 May 2022
4	Construction of Nadukuda 220/33 kV Grid Substation, Augmentation at Mannar 220/33kV Grid Substation,	ADB	Energized on 15 April 2021	Already completed
	Construction of Mannar - Nadukuda 220kV, 30km transmission line	ADB	Completed on 17.08.2020	Already completed
	Construction of Padukka - Horana 132kV, 25km transmission line	AFD	18% completed	20 April 2022
	Second Circuit stringing of Habarana-Valachchenai 132 kV Transmission line	AFD	78 % completed	30 Nov.2021
5	Construction of Colombo B GSS Single In & Out Connection from Colombo C - Kolonnawa 132kV 800mm2 Cable Augmentation at Colombo C and Kolonnawa Grid Substations	AFD	71% completed	31 Jan.2022
6	Augmentation of Kotugoda GSS, Kolonnawa Stanly GSS, Padukka Switching Station, Horana GSS, Dehiwala GSS, Madampe GSS	ADB	85% completed	31 Dec.2021
7	Construction of Biyagama 220/33kV GSS, Augmentation of Biyagama Grid Substation	ADB	93% completed	31. Dec. 2021
8	Installation of 100 MVAR BSC at Pannipitiya Grid Substation	ADB	63% completed	31.Jan 2022
	Installation of Static Var Compensator (SVC) at Biyagama Grid Substation		19% completed	7 Oct 2022
	Installation of 124Mvar Breaker Switched Capacitor Banks in Colombo City Grid Substations and Replacing the detuned Breaker Switched Capacitor Banks at Thulhiriya Grid Substation		Price Evaluation of the bids is in progress. Expected to award the contract Dec.2021	
9	300 kVA Micro Grid Pilot Project – (Implemented by LECO)	ADB	60% completed	30 Nov. 2021
10	Construction of 220kV Switching Station at Kerawalapitiya	ADB	12% completed	16 Aug.2022
11	Habarana - Veyangoda 220 kV Transmission Line Construction of New Habarana 220/132/33 kV Grid Substation	JICA	99% completed	30 November 2021
	Construction of New Habarana Veyangoda 220 kV Transmission Line Double Circuit Line Four Circuit Line		Double Circuit (Completed in 31 May 2021) 95% Completed	Four Circuit (5 March 2022)
12	National Transmission & Distribution Network Development Efficiency Improvement project Construction of 400 kV, 220 kV and 132 kV Transmission Lines	JICA	36% completed	30 July 2022

	Construction of Grid Substations		65% completed	31 Dec. 2021
	Construction of 220 kV and 132 kV Transmission Lines		37% completed	14 June 2022
	Lot A: Construction of Primary Substation Distribution Substation & cables in dehiwala mt. lavinia & battaramulla		23% completed	15 Sep.2022
13	Construction of 33 kV distribution Tower Lines and Gantries old Anuradhapura GSS to Mahailluppallama Gantry , 2 km- Ethgala Gantry to Storefield Gantry ,4km Kappalthurai GSS to Chainabay Gantry- 8km. Embilipitiya GSS to Weniwelara – 10.5km. Matugama GSS to Bentota PSS.-11.5km	AFD	75% completed	7 June 2022
	Augmentation of 02 Nos. existing 33/11 kV Primary substations at Ethulkotte and Beligaha. - Construction of 01 No. new 2x 10 MVA 33/11 kV Primary substation at Raththanapitiya	ADB	37% completed	22 Sep.2022
14	Electricity Supply Reliability Improvement Project Construction of 300 km long 33kV tower lines and 13 no. of 33kV switching gantries	ADB	38 % completed	March 2022
15	Supply and Delivery of Material for rural electrification network extended and distribution performance monitoring	ADB	Completed December 2020	Already completed.
16	Construction of Wind, Solar and Diesel Hybrid renewable energy Power Plants in three islands (Nainativu, Analitivu, Delft)	ADB	Tender process completed and the contractor has been selected. Cabinet approval is pending for awarding the contract. Observation of the Ministry of Finance on the Technical Report of CEB is pending	

5.3 Progress of Implementation of Budget Proposals

5.3.1 Dayata Eliya

Although the electricity grid has reached many parts of the rural areas, a significant number of households, particularly low-income families, are prevented from connecting to the national grid, due to their inability to pay the initial cost of connectivity. The Government has decided to provide electricity service connections for those families for free of charge. Rs.750 million has been allocated for this project. Beneficiaries have been selected by the CEB & LECO in collaboration with the Divisional Secretaries and Samurdhi Authority.

This programme was launched on March 6, 2021 at Giribawa Village in the Kurunagala District. The electricity service connection has been provided to 24,547 houses free of charge as at 22 October 2021.

	District	Total Number of Beneficiary Houses	Connections Given	Cost (Rs.Mn)
1	Ampara	4,330	1,519	34.18
2	Anuradhapura	6,565	2,317	52.13
3	Badulla	4,281	1,231	27.70
4	Batticaloa	5,033	1,494	33.62
5	Colombo	2,363	404	9.09
6	Galle	3,319	1,333	29.99
7	Gampaha	4,923	842	18.95
8	Hambanthota	6,088	1,200	27.00
9	Jaffna	2,753	1,740	39.15

10	Kaluthara	2,242	299	6.73
11	Kandy	3,802	893	20.09
12	Kegalle	2,681	501	11.27
13	Kilinochchi	1,505		
14	Mulathivu	1,810	1669	37.55
15	Kurunagala	6,443	1,131	25.45
16	Matale	2,157	216	4.86
17	Matara	3,209	789	17.75
18	Monaragala	5,582	672	15.12
19	NuwaraEliya	3,449	486	10.94
20	Polonnaruwa	2,442	635	14.29
21	Puttlam	4,196	772	17.37
22	Rathnapura	8,779	1,415	31.84
23	Trincomalee	4,174	1,605	36.11
24	Vavuniya	1,486		
25	Mannar	1,680	1,360	30.60
	Total	**95,292**	**24,547**	**552.31**

Three villages (Udagal debokka, Mada Kele, and Gala Muduna) that are in located in isolated areas in Kandy district are planned to provide solar power before end of this year.

5.4 Implementation of Activities agreed at "*Gama Samaga Pilisandarak*"

1. Badulla District, Haldummulla (23 Sep.2020)

- The power supply to the following villages was completed.

  Kumarathanna Village

  Kluwala- 100 Acre Village

  Welanvita village

  Kalukele Village.

2. Ampara District, Uhana, Lathugala (9 Jan.2021)

- Power Supply to 18 families in Lathugala Village was completed.

3. Galle District, Madampagama, Galagoda Village (13 March 2021)

- The requested power supply to the land plots was completed.

4. Kandy District, Meemure, (13 Feb. 2021)

- Off grid power supply using solar power to Udagal Debokka, Mada Kele, and Gala Muduna Villages is in progress. 43.9 million rupees was allocated under the "Deyata Eliya" programme. It is expected to complete the project before the end of 2021.
- The installation of solar powered Street lights in the public places of three villages has been completed.
- Implementation of battery charging centers for Gala Muduna and Uda Gal Debokka Villages was completed.
- Renovation of two Micro Hydro power plants in Galamuduna village is in progress.

5. Kegalle District, Daraniyagala, Dikella Kanda (6 Feb. 2021)

- Implementation of the Seethawaka Ganga project is in progress and is expected to be completed in 2023.

6. **Polonnaruwa District, Madirigiriya, Wedikachchiya (16 Jan. 2021)**

- Frequent power failures experienced in the Madirigiriya area were corrected and solved.
- The power supply to Ekamuthugama Village was completed.
- Providing electricity service connection to low-income families in Darshanapura, Dahamwewa and Wedikachchiya is in progress. 95% of the work has been completed, and the remainder is expected to be completed before the end of 2021.

7. **Vavuniya District, Bogaswewa (3 April 2021)**

- Providing power supply using Off grid Solar power technology to the Sapumalgaskada" old temple is in progress. Rs. 4.95 million was allocated for this purpose from "Deyata Eliya" programme.
- Providing grid connected power supply near Kiriibbanwewa Army Post via halaba wewa main road to the Cemetery is in progress. Actions were taken to allocate Rs.Mn 17.59 to this activity under the Dayata Eliya programme.
- Providing grid connected power supply to arable lands from the old farm in the Mahaweli L zone to the Dencil Kobbakaduwa road is in progress. Actions were taken to allocate Rs.Mn 5.19 to this activity under the Dayata Eliya programme.

5.5 Climate Change Activities

5.5.1. Nationally Determined Contributions -Power sector

The Government has declared the following Policy targets for NDCs of the power sector to the UNFCCC.

- Achieving 70% of the electricity demand of the country using renewable sources by 2030
- Carbon neutrality by 2050
- No new coal power plants established

In 2021 NDCs were updated. It is expected that NDCs will result in a GHG emission reduction against BAU scenario of 25% in the electricity sector (5% unconditionally and 20% conditionally), equivalent to an estimated mitigation level of 9,819,000 MT unconditionally and 39,274,000 MT conditionally (total of 49,093,000 MT) of carbon dioxide equivalent during the period of 2021-2030.

5.5.2. Colombo Green Development Dialogue

Series of policy dialogues were initiated by UNDP, the Ministry of Environment, and relevant stakeholders in 2021 with the aim of contributing to shaping the national green development agenda and supporting the establishment of a national multi-stakeholder platform to promote and support ongoing initiatives on green development.

6. Plans for 2022

6.1 Electricity Generation

i. Hydro Power Generation

- 14MW Seethawaka Ganga Hydro Power Plant - Expected to commence construction in 2022.

ii. Solar Power generation

- 100MW Siyambalanduwa Solar Power Park –Tenders for development of the park expected to be awarded in 2022.
- 150MW Pooneryne Solar Power Plant – It is expected to call for proposals for development of the park and complete the environmental and Social Impact assessment.

- 75kW x 7,000 Ground Mounted Solar Programme (Gamata Balagarayak) – Implementation of the first phase of 155 ground mounted solar power plants will be carried out in 2022, and second phase tenders are expected to award for construction.
- 147MW Small Scale Solar Power Plants – Construction is expected to be completed and 84 MW capacity energized in September 2022.
- Solar Power Projects under the USD 100 Million loan - Indian Line of Credit.

Implementation activities will be carried out in 2022 and expected to implement 120 MW capacity by 2023.

iii. Wind Power Generation

- 20MW /50MW Mannar Wind Plant. – It is expected to award the contract for construction of the power plant in early 2022 and commence the construction.
- 100 MW Mannar Wind Park, Second Phase – Request for Proposals is expected to be called in 2022 for completion of the park in 2024.
- 100 MW Mannar-Mullikulum Wind Power Park – Third Phase – it is expected to complete the Environment and Social Impact assessment in 2022 and commence the implementation activities.
- 100 MW Pooneryne Wind Park -First Phase – It is expected to complete the land acquisition process and call request for proposals in 2022.
- 5 MW and 10 MW Mannar Wind Power Plants – Constructions are expected to be commenced in 2022.
- 10 MW Wind Power Plant – Trincomalee - Constructions are expected to commenced in 2022.

The State Ministry of Wind, Solar, and Hydro Power Generation Projects Development has called for Expression of Interest in September 2021 from private investors to build RE projects above the capacity of 50MW under the Build Own and Operate Basis (BOO). It is expected to conduct the procurement process in 2022.

iv. Mini Hydro Power Generation

The capacity additions for 2022 are as follows.

	Place	Capacity (MW)	Completion Year	Total Capacity (MW)
01	Magal Ganga	2.8	2022	13
02	Diggala	4.4		
03	Kataran Oya	0.5		
04	Ellamulla	1.5		
05	Hathmala Ella	2.0		
06	Dambuly Oya Reservoir	1.6		

v. Liquidized Natural Gas (LNG) Generation.

- First 300 MW, LNG Power Plant- Sobadanavi, Kerawalapitiya – Expected to complete the major construction and complete the plant by mid-2023.
- Second 300 MW LNG Power Plant – Kerawalapitiya – It is expected to select and award the tender for a suitable developer for the implementation of the project in 2022.
- LNG Supply Infrastructure Deployment – LNG terminal facilities consisting a FSRU on build-own-operate (BOO) basis and a delivery pipeline on build-operate-transfer (BOOT) basis – It is expected to complete the procurement process in 2022 in order to commence operations in early 2024.

vi. **130 MW Gas Turbine Power Plant** – Kelanithissa – it is expected to award the tender soon.

Plans to generate 70% of the electricity demand of the country using renewable sources by 2030.

Ministry plans to achieve the government policy target with the state ministry and the relevant institutions of the ministry and following plans are already completed.

Power Generation Capacity Plan (2020-2030)											
	Installed Capacity (MW)- 2020	Power Generation Capacity Addition as per HE's Vision (MW)									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Clean Energy											
Renewable Energy	**2,430 (52%)**	**2,980**	**3,367**	**3,883**	**4,478**	**4,906**	**6,028**	**7,178**	**8,443**	**9,523**	**11,148 (82%)**
Major Hydro											
Laxapana	354	354	354	354	354	354	354	354	354	354	354
Mahaweli	817	817	817	817	817	817	817	817	817	817	817
Samanala	212	212	212	212	212	212	212	212	212	212	212
Moragolla				32	32	32	32	32	32	32	32
Broadlands		35	35	35	35	35	35	35	35	35	35
Umaoya		120	120	120	120	120	120	120	120	120	120
Seethawaka Ganga				14	14	14	14	14	14	14	14
Talpitigala					15	15	15	15	15	15	15
Mini Hydro	423	427	440	455	485	520	617	700	700	700	700
Wind											
Mannar	30	100	100	100	250	250	250	250	250	250	250
Pooneryne					100	233	233	233	233	233	233
Other	149	149	149	204	204	204	204	211	411	711	1,011
Off Shore							500	1,000	1,500	1,500	2,000
Solar											
Siyambalanduwa				100	100	100	100	100	100	100	100
Roof top	337	474	564	654	744	844	944	1,044	1,144	1,244	1,344
Others	70	225	495	695	895	1,025	1,360	1,600	1,840	2,090	2,370
Other RE											
Biomass Energy	38	67	81	91	101	111	121	141	161	181	201
Pump storage										200	400
Batery Storage						20	100	300	500	700	900
Wave									5	5	10
Geo Thermal										10	30
LNG					**660**	**977**	**977**	**977**	**977**	**977**	**977 (7%)**
Kerawalapitiya				310	660	977	977	977	977	977	977
Unclean Energy											
Coal	**900 (19%)**	**900**	**900**	**900**	**900**	**900**	**900**	**900**	**900**	**900**	**900 (7%)**
Norochcholai	900	900	900	900	900	900	900	900	900	900	900
Diesel	**536 (11%)**	**536**	**536**	**646**	**592**	**275**	**275**	**275**	**275**	**275**	**275 (2%)**
Kelanitissa	115	115	115	225	225	225	225	225	225	225	225
Kelani(18*3)**	54	54	54	54							
Sojitz	163	163	163	163	163						
Combined Cycle	154	154	154	154	154						
Thalpitiya, Kolonnawa, Mathugama (1*50)	50	50	50	50	50	50	50	50	50	50	50

Power Generation Capacity Plan (2020-2030)											
	Installed Capacity (MW)- 2020	Power Generation Capacity Addition as per HE's Vision (MW)									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Furnace	**839 (18%)**	**508**	**508**	**508**	**208**	**208**	**208**	**208**	**208**	**208**	**208 (2%)**
Sapugaskantha (18*4)	52	52	52	52	52	52	52	52	52	52	52
Sapugaskantha (9*8)	72	72	72	72	72	72	72	72	72	72	72
Barge	60	60	60	60	60	60	60	60	60	60	60
Uthurujanani	24	24	24	24	24	24	24	24	24	24	24
West Coast	300	300	300	300							
ACE Embilipitiya	100										
ACE Matara	20										
AES	163										
ASIA Power	48										
Total	**4,705**	**4,924**	**5,311**	**6,247**	**6,838**	**7,266**	**8,388**	**9,538**	**10,803**	**11,883**	**13,508**

Power Generation Plan 2022-2030									
	Electricity Generation as per HE's Vision (GWh)								
	2022	2023	2024	2025	2026	2027	2028	2029	2030
Clean Energy									
Generation from Renewable Energy (GWh)	**9,594**	**10,739**	**11,393**	**13,021**	**14,133**	**15,116**	**16,218**	**18,419**	**19,825**
Renewable as a % of Energy Demand	**52.7%**	**55.8%**	**56.0%**	**60.4%**	**61.9%**	**62.6%**	**63.8%**	**68.8%**	**70.3%**
Major Hydro	**5,078**	**5,507**	**5,417**	**6,035**	**5,838**	**5,585**	**5,541**	**6,118**	**5,759**
Laxapana	1,558	1,601	1,438	1,596	1,592	1,448	1,535	1,477	1,550
Mahaweli	2,386	2,804	2,653	3,135	2,767	2,566	2,806	3,172	2,643
Samanala	762	679	660	721	875	818	583	889	740
Moragolla			135	130	154	161	151	143	157
Broadlands	164	174	159	197	209	183	186	184	186
Umaoya	207	249	372	255	240	408	281	253	484
Mini Hydro	**1,456**	**1,519**	**1,582**	**1,645**	**1,692**	**1,739**	**1,786**	**1,833**	**1,880**
Wind	**733**	**833**	**957**	**1,279**	**1,899**	**2,316**	**2,645**	**3,469**	**4,364**
Mannar	322	370	434	756	1,077	1,077	1,077	1,077	1,077
Pooneryn					298	716	716	716	716
Other	412	463	523	523	188	188	852	1,676	2,571
Solar	**1,758**	**2,242**	**2,729**	**3,285**	**3,857**	**4,487**	**5,118**	**5,731**	**6,413**
Biomass Energy	**568**	**638**	**708**	**778**	**848**	**988**	**1,128**	**1,268**	**1,409**
Storage				*	*	*	*	*	*
Pumped Hydro Storage								*	*
Battery Storage				*	*	*	*	*	*
LNG			**2,502**	**2,757**	**3,479**	**3,748**	**3,830**	**2,838**	**3,632**
New Combined Cycle			1,574	2,460	2,807	2,516	2,497	2,158	2,600
Kelanitissa New GTs			0	0	3	0	0	0	0
Converted West Coast			288	69	138	263	365	236	296
Converted Kelanitissa Combined Cycle			278	167	205	450	350	185	366
Converted Sojitz Kelanithissa			362	60	209	362	341	178	257
Firm Peaking Power					118	157	276	82	113

Unclean Energy									
Coal	**5,439**	**5,534**	**5,568**	**5,175**	**5,170**	**5,235**	**5,300**	**5,474**	**4,668**
Norochcholai	5,439	5,534	5,568	5,175	5,170	5,235	5,300	5,474	4,668
Diesel / Naptha	**1,117**	**1,103**	**8**	**3**	**0**	**0**	**0**	**0**	**0**
Kelanitissa GTs	2	3							
Kelanitissa GT 7	61	5	8	3					
Kelanitissa Combined Cycle	521	315							
Sojitz Kelanithissa	504	626							
Supplementary Power	29	2							
New Combined Cycle (Open Cycle Operation)		151							
Furnace	**2,068**	**1,869**	**875**	**600**	**39**	**60**	**55**	**50**	**71**
Sapugaskanda A	333	316	205	190					
Sapugaskanda B	454	415	351	341					
Barge	407	357	255						
Uthuru Janani	123	120	64	69	39	60	55	50	71
West Coast	752	662							
Total Electricity Demand (GWh)	**18,218**	**19,252**	**20,346**	**21,556**	**22,822**	**24,160**	**25,404**	**26,780**	**28,195**

6.2 Transmission & Distribution Development

The plans are being made to strengthen and expand the existing transmission and distribution system to absorb more renewable energy while maintaining the system reliability.

- It is expected to sign the USD 250 million loan facility agreement with the Asian Development Bank before the end of 2021 and to construct the following transmission and distribution development in 2022.

	Project Name	Total Estimated Cost (Rs.Mn.)
1	Power System Reliability Strengthening Project (PSRSP)	
1.1	Construction of Kalawana and Negombo 132kV Grid substations Construction of Meerigama 220kV Switching station with grid substation, Augmentation of 132kV Matara grid substations	7,982
1.2	Construction of Matara-Hambantota 132kV transmission Line, Hambantota-Tissamaharama 132kV transmission line, 132kV Line Section from Homagama GSS to Horana-padukka 132 line, 132kV Line Section from Baddegama GSS to Galle-Ambalangoda 132 line - 132kV UG Cable from kelaniya Cable Gantry to Peliyagoda Grid substation	5,015
1.3	Construction of 132kV Thissamaharama, Baddegama, Homagama and Peliyagoda grid Substations	6,572
1.4	Construction of New Anuradhapura-New Habarana 220kV transmission line, Kukule-Kalawana 132kV line and 220kV line section from Mirigama GSS to Habarana-Veyangoda 220kV transmission line	2,991
2	Distribution System Reliability Strengthening Project (implement by LECO)	10,000

- USAID has committed USD 4.23 million under their grant financing for technical assistance to selected Research and Development projects, long term Generation and Transmission Planning and Grid Studies of Ceylon Electricity Board. It is expected to commence the R&D activities in 2022.
- Ministry is in the process of securing the financial assistance for the implementation of the following priority projects in 2022.

	Project Name	Total Estimated Cost USDM
1	Construction of Biyagama Zone 132/33 kV Grid Substation	16.36
2	Construction of Ekala 220/33 kV Grid Substation	20.01
3	Construction of Colombo G (Kirulapana) 220/132 kV Grid substation and Colombo K (Wellawatta) 132/11 kV Grid Substation	107.66
4	Construction of Sub P (Narahenpita) 132/11 kV Grid Substation	28.61
5	Construction of Sub Q (Town Hall) 132/11 kV Grid Substation	12.60
6	Construction of Kandy City 132/11 kV Grid Substation	27.06
7	Construction of Kotadeniyawa 220/33 kV grid substation	17.23
8	Construction of Wariyapola 132/33 kV Grid Substation & Wariyapola South 220/132 kV Switching Station	39.38
9	Vavuniya Grid Substation 220 kV Development	18.18
10	Construction of New Habarana - Kappalturei 220 kV transmission line	28.87
11	Construction of Samanalawewa – Embilipitiya 132 kV Transmission Line with Zebra	9.33
12	Construction of Welimada 132/33 kV Grid Substation	26.09
13	Construction of Keeriyankalliya 132/33 kV grid substation	29.93
14	Construction of Kerawalapitiya–Port 2nd 220 kV Underground Cable	46.90

7. Challenges Faced during 2021 and the Strategies used to overcome such Challenges

	Challengers	Strategies to Overcome
1	COVID 19 pandemic effects on the development projects	Arrange vaccination for staff. Introduce long shifts. Close monitoring of the critical projects. Frequent discussions with Project Directors and identify issues and solve them in collaboration with relevant parties.
2	Land issues in generation and transmission projects	
	Delay in the acquisition of land	Appointment of a land task force under the Ministry to obtain the assistance of the Ministry of Land
	Difficult to resettle people whose lands are affected by the projects	Proposed to gazette the projects that need compensation payments under LARC and Super LARC, so that the compensation payment be more attractive.
	Demanding a royalty fee by the lands /water bodies of the Mahaweli Authority that have been identified for power projects is making the cost affected of power generation. This cannot be applied to the projects where the proposed tariff has been agreed in the past	Discussions held with the Ministry of Irrigation and this issue is still pending.
3	Financial Constraints of the CEB and hence limitation of meeting the cost of the development of the grid.	Promote private investments for generation projects and link the transmission development into such projects to finance through 'supplier credit' and, seek bilateral and multilateral loans on favourable terms for the construction of transmission and distribution lines.
4	Minimize the cost of power in order to maintain the international competitiveness of the industrial production process.	Diversification of the energy mix by scaling up of renewable energy and introducing LNG. Reduce transmission and distribution losses by strengthening the Transmission Network. Timely implementation of generation projects

	Challengers	Strategies to Overcome
5	Issues related to the implementation of renewable energy projects	
	The complicated approval process, with so many approvals needed (CEA, Forest Dept, Wildlife Dept, Coast Conservation Dept, MASL, GSMB, NBRO, Agrarian Services, Land Commissioner, Irrigation Dept) Although the Project Approving Committee under the SEA was established to address the said issue, it had not resolved the issue	Give a limited time to every organization to respond to the requests of the developers Facilitating the developers to obtain approvals and, close monitoring. For large RE projects Ministry and the State Ministry to facilitate by obtaining approvals for the entire area so that the site is ready for the developers to jump start the project. (and the applicable fee to be borne by the developer)
	Long time taken for tendering and Delay in starting the tendering of RE generation projects	Instruct CEB to publish grid availability regularly. Streamline the tendering process and approval process Calling Expression of Interest from the prospective developers to propose any RE generation projects to expedite the process and evaluate their technical and financial conditions to ensure least cost. Regular tendering for RE projects by the CEB and introduce feed-in tariff where appropriate as per the guideline issued by the Attorney General
	Reduce intermittence in the system	Introduce battery- Started a pilot project with SL Nano Technology Institute and LECO to produce affordable prices producing batteries -introduce a special tariff system to promote use of energy saving methods (battery) in solar projects

Ceylon Electricity Board

Introduction

Ceylon Electricity Board (CEB) is a state owned enterprise established by the Act No. 17 of 1969 dated November 1, 1969 and as amended by Act Nos. 31 of 1969, 29 of 1979, and 32 of 1988. Sri Lanka Electricity Act No. 20 of 2009 as amended by Act No. 31 of 2013 brought CEB under the regulatory purview of the Public Utilities Commission of Sri Lanka (PUCSL). CEB is empowered to generate, transmit and distribute electrical energy to all categories of consumers, to collect revenue as per a cost reflective end user tariff approved by the PUCSL and to perform its functions as provided under its Act and in accordance with the licenses issued by the PUCSL so to ensure that the total revenue of the Board is sufficient for all its activities.

Vision

Enrich Life through Power

Mission

To develop and maintain an efficient, coordinated and economical system of electricity supply to the whole of Sri Lanka, while adhering to our core values; Quality, Service to the Nation, Efficiency and Effectiveness, Commitment, Safety, Professionalism and Sustainability.

Goals

CEB recognizes eight goals for the Corporate Plan 2019-2023 by giving due consideration to the Sustainable Development Goals (SDG) issued by the United Nations. Following are the eight *Goals* formulated in order to realize the organization's long-term Vision and Mission.

- Making CEB Financially Stronger
- Enhancement of low cost energy generation
- Electricity to entire country at an affordable price
- High quality electricity supply and services to customers
- Stronger relationship with external stakeholders
- Enhanced employee engagement
- Operational excellence with state of art technology
- Optimizing integration of green energy

Environmental Sustainability

We are committed to be an innovative enterprise in Sri Lanka, whilst safeguarding our environment for the future generations. Best environmental management practices are adopted throughout the CEB to ensure its complete compliance with relevant environmental legislation and regulatory standards while building the trust and confidence of the community in CEB's operations. We conduct our business through a participatory approach involving the community and other stakeholders in all stages of our development projects to ensure the optimum benefit to the community in the long run.

1. Overview of Electricity Supply

Electricity demand in the country during the last fifteen years has been growing at an average rate of about 5.5% per annum while peak demand has been growing at a rate of 3.7% per annum.. However the net generation in the year 2020 was recorded as 15,714 GWh and dropped by 1.3% compared to that of 2019 with the impact of the Covid-19 Pandemic.

CEB's annual expenditure on generation significantly varies with the amounts of electricity generated from thermal power plants of both CEB and Independent Power Producers (IPP). The securing of fuel

supplies both coal and liquid fuels, has a direct impact on the operation of thermal power stations and also very important in managing the finances of the CEB.

CEB needs considerable investment for the development of its transmission and distribution network, for the expansion of CEB's present electrical network to cater to the increase in demand, due to expansion of economic activities and also to cater the demand due to new consumers. Rural Electrification schemes and Electricity for All programs have been introduced to improve the quality of life of rural people and economic development of rural areas. GOSL need to continue to compensate the CEB through investment or operational support, whenever such projects become commercially non-viable.

With the scheduled conclusion of CEB's drive to electrify whole of Sri Lanka, CEB shifted its focus to improve the quality of services offered by CEB to win the hearts and minds of consumers. To instigate the transformation of CEB to be a more consumer friendly organization, a list of novel customer services initiatives was identified. This list included many mobile and Internet based services, aiming at the IT savvy and busy modern day consumer. CEB also launched a major training drive to train CEB's key customer interface staff on Customer Service.

1.1 New Customer Care Initiatives

Service Request & Complaint Handling:

- New fully featured *CEBCare Web Portal* was introduced to enable Customers to avail their service requirements online without visiting CEB Offices. Customers shall apply for new connection, request service changes, check billing details, make online payment, lodge breakdown complaints and check interruption schedules online via this new web portal.

- *CEBAssist Interruption Planning System* was introduced to digitalize maintenance and interruption planning operations involving different distribution branches. This enables CEB to optimize the interruption frequency & duration and enables to pre inform effected customers in advance via SMS & other *CEBCare* touchpoints

- *Unified Call Center Solution* was introduced to integrate all 13 provincial call centers into one virtual call center for optimized resource utilization and improved service quality. Unified Call center Solution was seamlessly integrated with CEBAssist Solutions to provide Automated Voice Response (AVR), Interactive Voice Response (IVR) and Automated Complaint Loding facilities in addition to conventual agent answer option. This unified solution enables CEB to handle average 25,000 calls in a day with 16s average waiting time and 45 seconds peak time waiting time.

- *CEBAssist Corporate Electricity Interruption Portal* was introduced to integrate telecommunication service provider power monitoring systems with CEBAssist Solution. This portal enables corporate customers to interact with CEBAssist Solution via API for electricity breakdown complaint lodging and receiving scheduled interruption schedule.

Metering & Billing:

- *MeterAssist* mobile application was introduced for Meter Readers to collect and update meter readings online from field. This was aimed to reduce the lead-time in updating readings to central billing system and providing accurate billing information to customers.

- *CEBAssist Online Meter Reading* system enabled CEB to alert customers via SMS & CEBCare App on gate lock and assessed reading cases. Also, it provides facility to alert customers on latest meter reading and bill values.

- *CEBAssist Online Billing System* was introduced to fully digitalize labor intense manual billing process carried out in area office & provinces offices. This system enable CEB to solve customer billing complaints and relevant account adjustments in much shorter time and update accounts in real-time.

- *CEBAssist - DisconnectionAssist* system was introduced to assist revenue management and disconnection/reconnection operations. This system facilitates to ensure accurate defaulter analysis and hassle-free disconnection/reconnection operation with real-time payment information.
- *CEBAssist - Smart Meter Reading System* was introduced in western province to read customer electricity meters digitally and send eBill via email and SMS.
- *Automatic Bill Settlement* facility was introduced to inform customers' latest account balance to banks. In return, banks facilitate customer bill settlement via standing order arrangement.

Payment:

- *Online Payment System* was revamped introducing multiple payment gateways along with login free instant payment options. In addition, online payment facility was extended to *CEBCare* Mobile App.
- More banks and supermarket chains were on-bordered to *Third-Party Payment Collection System*. Also, third-party payment collection system was revamped to accommodate online real-time account update for third-party payment collections.
- Customers can now pay their electricity bills using the major Mobile payment platforms operating in Sri Lanka. Payments can also be made via *CEBCare App* at the convenience of the customer. All major mobile payment platforms now have integrated customer verification and bill settlement of CEB customers. This provides much larger digital touch points for customers to settle their payments, without visiting CEB offices.
- *Payment Collection Distribution System* and *PIV System* were revamped to accept PIV payments from any People's bank branches and update central systems in real-time. These revamped systems enable customers to receive the PIV amount via SMS and make relevant PIV payment via any People's bank branches without visiting CEB offices.

1.2 Electricity Demand

During the first six months of 2021, the demand for electricity was increased by 7.10% while the maximum demand recorded during this period was 2,801.62 MW against 2,717.46 MW for the last year. During this 6 months' period 8,120 GWh were generated and 7,443 GWh were sold.

The total energy generated during the first half of the year (8,120 GWh), of which 33% has come from Hydro generation (including mini hydro). Coal power generation stood at 38%. Thermal Oil had contributed to 22% of total energy generation. Other renewable sources (excluding mini hydro) had a share of 7%. In comparison, by end May 2020, contribution from Hydro generation was 26%.

1.3 Electricity Demand Forecast for 2022

For year 2022 the electricity demand forecast based on draft CEB Long Term Generation Expansion Plan 2022-2046 is as follows:

Year	Demand		Generation		Peak
	(GWh)	Growth Rate (%)	(GWh)	Growth Rate (%)	(MW)
2022	16,741	5.8%	18,203	5.7%	2,967

Power Generation

The Generation Division of Ceylon Electricity Board is responsible for the operation and maintenance of Thermal and Hydro Power Plants owned by CEB. Generation Assets consist of 17 large Hydro Power Plants totalling to an installed capacity of 1,383 MW, one (01) 900 MW Coal-fired Power Plant, Thermal Power Plants with an installed capacity of 654 MW consisting of seven large oil-fired power plants with 604 MW and 50MW oil-fired plants of 1 MW each and 31.05 MW Mannar wind park.

CEB also operates few power plants in the isolated networks in surrounding islands of Jaffna Peninsula. Thus the total installed Capacity of CEB-owned Power Plants as at 30th June 2021 were 2,968 MW.

Generation details of CEB and Private Power Producers as at 30th June 2021 is given below.

For the 06 months ended 30th June 2021; the total generation stood at 8,120GWh, of which 26% has come from major hydro generation, while the share of Coal power generation standing at 38%. Thermal Oil had contributed to 22% of total energy generation. Other renewable sources had a share of 14%. In comparison, contribution from major hydro for the same period during 2020 was 21%.

	Description	Generation (GWh)
CEB	Hydro	2,151
	Thermal - Coal	3,091
	Thermal - Oil	700
	Wind	100
IPP	NCRE (Small Hydro)	576
	Thermal	1,056
	Wind	120
	Solar (Grid Connected)	68
	Solar (Rooftop)	179
	Dendro, Bio Mass & M unicipal	79
	TOTAL	**8,120**

1.4 Expansion of Generation Capacity

The implementation of the new Generation Projects is going ahead as envisaged in the CEB's approved Long Term Generation Expansion Plan (2018 – 2037).

The current status of Generation Expansion Projects is as follows.

2. Progress of the Development Projects and Activities

2.1 Hydro Power Development Projects

Uma Oya Hydro Power Project

The Uma Oya Multi-Purpose Development Project is being implemented by the Ministry of Irrigation and Water Resources Management in association with the Ministry of Power and Energy. The estimated capacity of the power plant is 120 MW (2x60MW) and the expected annual energy production is 290 GWh.

Arial view of Puhulpola dam

- Plant capacity : 120 MW
- Total Project Cost : USD 530 Million
- Expected Annual Energy Output : 290 GWh
- Expected date of completion : September 2021
- Current Progress : Total physical progress – 96.16%

Broadlands Hydropower Project


Braodlands Power House

The Broadlands Hydropower Project is a run-of-the river type Project planned to build on the Kelani River, with the objective of harnessing the downstream hydro potential of the existing Polpitiya Power Station. The Project will have an installed capacity of 35 MW and is expected to generate 126 GWh of electrical energy annually.

The Broadland Hydropower Project is the first large scale hydropower plant which obtained Clean Development Mechanism (CDM) registration in Sri Lanka.

- Plant capacity : 35 MW
- Total Project Cost : Industrial & Commercial Bank of China (ICBC) USD 69.724 Million (85%)
  : Hatton National Bank of Sri Lanka (HNB) USD 12.304 Million (15%)
- Expected Annual Energy Output : 126 GWh
- Expected date of completion : September 2021
- Current Progress : Total physical progress – 90%
  Total Financial Progress – 71%

Moragolla Hydro Power Project

Asian Development Bank provided USD 125 Million to this Project under loan no. 3146 (SF)/ 3147 SRI – "Green Power Development and Energy Efficiency Improvement Investment Program (Tranche 1)" for the construction of Moragolla Hydropower Project.

- Plant capacity : 30.5 MW
- Total Project Cost : Foreign Funds USD 113.86 Million &
  Local Funds (CEB) LKR 3,958 Million
- Expected date of completion : 15th September 2023
- Current Progress : Overall progress – 16.5%

2.2 CEB Thermal Power Development Projects

Liquefied Natural Gas Project (LNGP)

A Public Private Partnaship Project has been implemented to deploy natural gas to Colombo based power plants.

Expected date of completion : February 2024
Current Progress : 26%

130 MW Gas Turbine Power Plant at Kelanitissa

The objective of this Kelanitissa New Gas Turbine Project Unit is to replace the existing Frame V gas turbines in Kelanitissa Power Station with new gas turbine to restore electricity supply to the Colombo City during emergencies and to supply peaking power. However, the Project Management Unit has been restructured under the Generation Division.

- Plant capacity : 130 MW (3 or 4 units)
- Total Project Cost : USD 90 Million
- Expected date of completion : 2023
- Funding : Suppliers Credit Facility
- Current Progress : Tender floated in April 2021 and will be closed in Sep 2021.

2.3 Thermal Power Development Projects by Private Sector

Supplymentary Power Plants

24 MW Power Plant (V Power Holding Ltd.) at Valachchenai has been commissioned for 6 months period up to October 2021.

First 300 MW Natural Gas fired Combined Cycle Power Plant –Kerawalapitiya

- Plant capacity : 300 MW
- Expected date of completion : April 2024
- Current Progress : PPA Signed on 2021-07-19

Second 300 MW LNG Combined Cycle Power Plant - Kerawalapitiya

- Plant capacity : 300 MW
- Expected date of completion : October 2024
- Current Progress : RFP were invited on 2021-06-21 and scheduled to be closed on 2021-09-13. Land procuring process in progress.

Third 300 MW LNG Combined Cycle Power Plant - Muthurajawela

- Plant capacity : 300 MW
- Expected date of completion : 2026
- Current Progress : EIA for the development of the land is completed and EIA report is opened for public comments. Land development will be carriedout within next two years.

  JV agreement between CEB and NTPC already signed. Article of association of the JV company is being finalized.

2.4 Renewable Energy Development Projects by Private Sector

The electricity generated from new sources of renewable energy (Non-Conventional Renewable Energy (NCRE)) such as small hydro, wind, solar, biomass etc., is absorbed in to the grid through Standardized Power Purchase Agreements. The details of these NCRE projects are given below:

Performance of the NCRE Sector (up to 30th June 2021)

Details of the Commissioned NCRE Power Projects as at 30th June 2021 is given below:

Project Type	No. of Projects	Capacity (MW)
Mini Hydro Power	212	**414**
Wind Power	17	**148**
Biomass-Agri. & Industrial Waste Power	04	**13**
Biomass – Dendro Power	09	**27**
Municipal Waste Power	01	**10**
Solar PV	45	**88**
Total	**288**	**700**

Programs for NCRE Sector

NCRE Projects which are expected to be commissioned in the latter part of the year 2021 is given below:

Project Type	No. of Projects	Capacity (MW)
Mini Hydro Power	44	**74**
Biomass-Agri. & Industrial Waste Power	01	**02**
Biomass – Dendro Power	10	**56**
Biomass Municipal Solid Waste Power	03	**20**
Solar PV	55	**73**
Solar Thermal Power	00	**0**
Wind Power	02	**36**
Total	**115**	**261**

2.5 Feasibility Studies on Generation Developments by CEB

Item No	Project Description	Funding Agency	Cost	Completion	Current Progress
01	Pre-Feasibility and Detailed Feasibility studies for the first Pumped Storage Hydro Power project (PSHP)	Foreign (ADB) + Local	LKR 385 Million	2023	EOI (Expression of Interest) adveritised on 2021.08.03

2.6 Hydro Power Projects Developed by the Ministry of Irrigation

Thalpitigala Hydro Power Project

- Plant capacity : 15 MW
- Expected Avg. Annual Energy : 52.4 GWh
- Expected date of completion : 2024

Gin Ganga Hydro Power Project

- Plant capacity : 20 MW
- Expected Avg. Annual Energy : 66 GWh
- Expected date of completion : 2022

2.7 Generation Rehabilitation Projects by CEB

The Generation Division of the CEB is implementing several rehabilitation projects to minimize their maintenance/repair costs and improve the efficiency and reliability of the machines. Obsolete equipment will be replaced with their modern counterparts using new technologies and this will enable to address issues arising from the non-availability of spares for old equipment and ensure their efficient performance in the years to come.

Performance of Rehabilitation works done in 2021 and planned for 2022 are as given below.

Project Name	Progress as at 30th June 2021	Remarks
Enhancing coal yard facility at LVPS	Physical Progress-15%	Expected to complete in December 2023 Existing Capacity- 0.9 Million MT Enhanced Capacity- 1.21 Million MT
Frame –V gas turbine rehabilitation at KPS	Physical Progress- 85%	Expected to complete in October 2021
Rehabilitation of Inginiyagala Power Station	Unit no 01 rehabilitation work has been commenced since 2021-02-12. Physical progress- 70%	Expected to complete in December 2021
Rehabilitation of Udawalawa Power Station	To be commenced	Rehabilitation works of unit 01 and unit 03

2.8 ERP Project

It was expected to initiate implementation phase of the ERP project within year 2021. The procurement was underway. However the bidding process did not result in a responsive bid, so had to go for re-bidding. Currently the re-bidding process is underway. Hence as of now no fund disbursement was done from 2021 budget and no physical progress.

Around 18% of physical progress is expected for year 2022, once the current procurement process concludes. A CAPEX budget of LKR 620 Million financial progress (18%) is budgeted for 2022.

3. Transmission of Electricity

CEB Transmission Division plans, develops, operates and maintains the whole of the transmission assets of the CEB, while providing services to other Divisions of CEB in certain areas of activities.

The Transmission Division operates 220kV and 132kV grid substations, embracing all power stations and dispatches all electricity supplied to the grid through its System Control Centre. The System Control Centre plans and carries out the operation of generation and transmission systems in order to achieve reliability, quality and operational economy of the power supply. Archiving the generation and transmission data and the preparation of regular management information is also carried out by the Transmission Division.

The operational objectives of the Division are to:

- Develop and maintain an efficient, coordinated, reliable and economical transmission system.
- Procure and sell electricity in bulk to distribution licensees so as to ensure a secure, reliable and economical supply of electricity to consumers.
- Ensure that there is sufficient capacity from generation plants to meet reasonable forecast demand for electricity.
- Maintain transmission voltage variations within ±10 % for 132 kV &220 kV and frequency within ±1 % of 50Hz of the system.

  Transmission system development projects including all the transmission lines and grid substations in the country are carried out by specially formed Project Management Units (PMU) which comprise of experienced groups of engineers. These PMUs are established under Projects Division of CEB.

3.1 Performance of Committed Transmission Development Projects

Brief description of the committed transmission development projects, which are being carried out in 2021 and are expected to be continued in to the year 2022 is given below:

Item No	Project Description	Funding Agency	Cost	Agreed Year of Commissioning	Current Progress
01	**National Transmission & Distribution Network Development & Efficiency Improvement Project**	JICA			
	Package 1: Construction of Transmission Lines		LKR 11.67 Billion	July 2022	Physical -27% Financial – 13%
	Package 2: construction of New 220/132 kV substation		LKR 7.42 Billion	December 2021	Physical -56% Financial – 39%
	Package 3: Construction of 220 kV Transmission Lines		LKR 10.26 Billion	June 2022	Physical -31% Financial – 27%
	Package 4: Construction of distribution SSs and 11kV cables		USD 16.11 Million, LKR 1.7 Billion	September 2022	Physical -17% Financial – 10%
02	**Green Power Development & Energy Efficiency Improvement Project – Tranch II**	ADB			
	Package 1 -Lot A : Hambanthota Grid Substation 220 kV Development		USD 9.2 Million, LKR 437 Million	November 2021	Physical -84% Financial – 67%
	Package 1 – Lot B : Construction of New Polpitiya – Hambanthota 220 kV, Transmission Line (150 km)		USD 32.3 Million, LKR 808.2 Million	September 2021	Physical -72% Financial – 64%
	Package 2- Lot A: Construction of Nadukuda 220/33kV Grid Substation and Augmentation at Mannar 220/33 kV Grid Substation		USD 12.4 Million, LKR 947.6 Million	April 2021	Physical -100% Financial – 87%
	Package 2-Lot B1: Mannar-Nadukuda 220 kV Transmission Line - 30km		USD 6.6 Million, LKR 438.5 Million	April 2021	Physical -100% Financial – 85%
	Package 2-Lot B2 A: Padukka-Horana 132 kV, 25km Transmission Line		USD 378.8 Million	April 2022	Physical -16% Financial – 15%
	Package 2-Lot B2 B: 2nd circuit stringing of Habarana – Valachchenai 132 kV Transmission Line		USD 320.9 Million	November 2021	Physical -57% Financial – 71%
	Package3- Lot A1: Construction of Colombo B GSS, Single in & Out connection from Colombo C-Kolonnawa 132kV 800sqmm cable		USD 8.16 Million	January 2022	Physical -64% Financial – 50%

	Package3- Lot A2: Augmentation of Kotugoda, Kolonnawa, Stanley, Padukka, Horana, Dehiwala, Madampe GSS		USD 14.25 Million	September 2021	Physical -80% Financial – 90%
	Package3- Lot B : Construction of Biyagama 220/33kV GSS Augmentation of Biyagama GSS		LKR 1.43 Billion	August 2021	Physical – 89% Financial – 85%
	Package 7- Lot A1 : Installation of 100MVAr BSC at Pannipitiya GSS		LKR 1,097 Million	September 2021	Physical – 58% Financial – 68%
	Package 7- Lot A2 : Installation of +100/-50 Mvar SVC at Biyagama GSS		LKR 1,595 Million	October 2022	Physical – 12% Financial – 12%
	Package 7- Lot A3: Construction of Capacitor banks in Colombo GSS and Thulhiriya GS	ADB Savings	LKR 863 Million (Estimated) To be commenced		Tender evaluation in progress
	Package 8- Lot A: Augmentation of Nadukuda/Chunnakam / Aniyakanda /Pannala and Ambalangoda GSS	ADB Savings	LKR 2876 Million	-	Bid evaluation is progress
	Package 9: Construction of New 220kV switching station at Kerawalapitiya SS		USD 7.9 Million+ EURO 0.6 Million + CHF 2.5 Million + LKR 936.7 Million	August 2022	Physical – 12% Financial – 17%
03	**Greater Colombo Transmission & Distribution Loss Reduction Project**	CEB			
	Replacement of Line bay and Busbar CT's including existing basbar protection scheme with low impedance numerical basbar protection scheme at Colombo "E" & "F" GSSs		LKR 116 Million	December 2021	Manufacturing and supply of material was delayed and contractor is unable to mobilize due to current Covid-19 situation in Sri Lanka. Physical -10%
	Replacement existing busbar protection scheme Colombo "E" & "F" GSSs		LKR 30 Million	September 2021	Physical -10% Financial – 4%
	Kerawalapitiya-Port L-220kV 2nd cable from	To be finalized		February 2024	

04	**Renewable Energy Absorption Transmission Development Project**	AFD / ADB	EURO 30 Million, LKR 1,200 Million	June 2021	Physical -99.9% Financial – 99.9%
	Civil Works, Erection and commissioning other services and supply of LVAC, control and protection cables, earth mesh and lighting protection system.				
	Package 3: Civil Works, Erection & Commissioning other services and supply of LVAC, control & protection cables, earth mesh & lighting protection system.				
05	**Green Power Development & Energy Efficiency Improvement Investment Programme (Tranche1) Part 2**	ADB/ AFD			
	Lot A: Construction of Kappalturei GS and Augmentation of Kerawalapitiya, Katunayake and Trincomalee GSS		USD 12.77 Million LKR 805.91 Million	September 2021	Physical – 96% Financial – 87%
	Lot B1 : Construction of Kesbewa and Kaluthara GSS and Augmentation of New Anuradhapura, Old Anuradhapura, GSS		USD 11.76 Million LKR 1,153.66 Million	October 2021	Physical – 89% Financial – 82%
	Lot B2 : Construction of associate transmission lines		USD 2.03 Million, LKR 386.9 Million	Completed on March 2020	Physical – 100% Financial – 100%
06	**Power System Reliability Strengthening Project (PSRSP)**	ADB			
	Package 1: Lot A		USD 18.19 Million	Constructions scheduled to be commenced in 2021	Awating for Cabinet approval for Kalawana land
	Package 1:Lot B		USD 25.45 Million		Tendering in progress
	Package 2: Lot A		USD 21.98 Million		
	Package 2:Lot B		USD 5.44 Million		
	Package 3		USD 35.93 Million		Land procuring in progress
	Package 4		USD 15.97 Million		
07	**Habarana Veyangoda Transmission Line Project (HVTLP)**	JICA			

	Lot A: Construction of New Habarana GSS & Augmentation works at Veyangoda GSS, New Anuradhapura GSS, Kotmale GSS, Ukuwela GSS Naula GSS, Polonnaruwa GSS, Valachchenai GSS Old Habarana Substation		JPY 1.927 Billion	May 2021	Physical -99% Financial -98%
	Lot B : New Habarana to Veyangoda 220kV 146km Tr line and 4 small line segments		JPY 4.453 Billion	May 2021	Physical -95% Financial -90%
08	**Supporting Electricity Supply Reliability Improvement Project (SESRIP)**	ADB			
	Package 7- Lot A 1: Installation of 100Mvar BSC at Pannipitiya GSS	3409 SRI	LKR 1,097 Million	September 2021	Physical -58% Financial -68%
	Package 7- Lot A 2: Installation of +100/-50 Mvar SVC at Biyagama GSS		LKR 1,595.36 Million	October 2022	Physical -12% Financial -12%
	Package 7- Lot A 3: Construction of Capacitor Bank in Colombo GSS and replacing Capacitor Bank in Thulhiriya GSS		LKR 863.34 Million		Technical Evaluation in progress.

Transmission Construction Projects (TCP) Branch in CEB implements Transmission Lines Construction Projects and Grid Substations Construction Projects which involve new constructions, augmentations, reconstructions and rehabilitation works of the CEB transmission network, which are not carried out by the specific PMUs.

Brief description of the transmission development / rehabilitation /reconstruction activates being carried out in 2021 and are expected to be continued in to the year 2022 under TCP branch is given below:

Item No	Project Description	Funding Agency	Cost (LKR Million)	Year of Commissioning	Current Physical Progress
01	Installation of 100 MVAr Reactor at New Anuradhapura GS and 50 MVAr Reactors at Mannar GS	ADB	1,430	July 2021	93%
02	Construction of Wagawatta Grid Substation	BOI	1,898	July 2022	58%
03	Construction of 02 Nos. of 220kV double bus bars Transmission Line Bay at New Polpitiya Grid Station	ICG	291	March 2021	88%
04	Construction of Two (02) 33kV Feeder Bays at Ratmalana Grid Substation	ICG	148	October 2020	72%
05	Extension of Kelanitissa 132kV GIS	ICG	465	December 2021	26%
06	Contruction of Transformer Foundation at Kotugoda GS	ICG	57.10	December 2021	31%

07	Construction of 02 nos. of 33 kV Feeder Bays at Balangoda Grid Substation	ICG	66.13	March 2022	10%
08	Construction of 01 nos. of 132 kV Feeder Bays at Ampara Grid Substation	ICG	90.96	October 2022	5%
09	Construction of Randeniya Switch Yard	ICG	280 (Estimated)	Dec 2021	-
10	Construction of Rantambe GS at Rantambe Power Station	ICG	2,752	Dec 2023	-
11	Construction of 01 nos. of 220 kV Feeder Bays at Victoria Power Station Switch Yard	ICG	309	Dec 2022	-
12	Construction of Hambanthota Port Grid Substation	BOI	5,280	Dec 2024	-
13	Construction of 02 nos. of 220 kV Feeder Bays at Hambanthota GS	BOI	283	Dec 2022	-
14	Construction of 02 nos. of 132 kV Feeder Bays at Monaragala GS	ICG	189	Dec 2022	-
15	Construction of 02 nos. of 132 kV Feeder Bays at Kilinochchi GS	ICG	1890	Dec 2023	-
16	Augmantation of 01 nos. of 132 kV Feeder Bays at Athurugiriya GS	ICG	147.90	October 2021	78%
17	Construction of New 31.5 MVA 132/33 kV Power Transformer Foundation at Bolawatta Grid Substation	ICG	10.30	January 2021	100%
18	Construction of Two 33kV Feeder Bays at Kalutara GS	ICG	35.65	September 2021	60%
19	Reconstruction of Madagama - Ampara 132kV Transmission Line	ADB/CEB ICG	ADB 1801 - ICG - 1405	December 2023	5%
20	Construction of Victoria - Rantembe 220kV Transmission Line	CEB ICG	1400	December 2022	1%
21	Augmentation of Athurugiriya - Kolonnawa 132kV Transmission Line	CEB ICG	170	December 2022	12%
22	Biyagama – Pannipitiya for LRT Project (2.64km)	Suspended	386	October 30,2022	-
23	Raising Heights of Kelanitissa - Kolonnawa 132kV Transmission Line	Awaiting for RDA funds	702	Will be ompleted withing 18 months	-
24	Reconstruction of Kolonnawa - Pannipitiya 132kV transmission Line	CEB ICG	752	December 2023	-
25	Construction of Poonaryn - Kilinochchi 220kV transmission Line	CEB ICG	372	May 2024	-
26	Construction of Siyambalanduwa - Monaragala 132kV transmission Line	CEB ICG	350	May 2023	-

3.2 Status of Uncommitted Transmission Development Projects

Brief description of the uncommitted transmission development projects, which funds to be arranged in year 2022 is given below:

No	Project Description	Base Cost (LKR Million)	Action Taken	Present Status
1	Construction of Colombo G (Kirulapana) 220/132 kV Grid substation	79.1	Submitted to ERD to be consider for ADB funding in 2023.	Funding not yet commited. NPD and board approval is received and a PMU has been formed.
2	Construction of Sub K (Wellawatte) 132/11 kV Grid Substation	25.8		
3	Construction of Sub P (Narahenpita) 132/11 kV Grid Substation	27.2		
4	Construction of Colombo Q (Town Hall) 132/11 kV Grid Substation	12		
5	Construction of Wariapola 132/33 kV grid substation & Waroyapola-South 220/132kV Switching Station	37.4		
6	Construction of Kandy City 132/11kV Grid Substation	25.7		
7	Construction of Ekala (Kotugoda) 220/33kV Grid substation	18.4	Submitted to ERD to be consider for a future loan.	Submitted for NPD approval.
8	Construction of Kotadeniyawa 220/33 kV grid substation	18.4		
9	Construction of Vavuniya 220/132 kV grid substation	19.3	Submitted to ERD to be consider for AFD funding in 2021.	Funding not yet commited. NPD and board approval is received and a PMU has been formed.
10	Capacity Enhancement of Samanalawewa – Embilipitiya 132 kV transmission line	8.8		
11	Construction of Welimada 132/33 kV grid substation	21.1		
12	Capacity Enhancement New Anuradhapura-Trincomalee 132 kV transmission line	23.9		
13	Construction of Keeriyankalliya 132/33 kV grid substation	28.4		

4. Distribution of Electricity

CEB is responsible for over 88% of electricity distribution in the country while the rest is taken care by Lanka Electricity Company Ltd. (LECO), a subsidiary of the CEB. The Distribution Network System consists of 33kV and 11kV Medium Voltage (MV) lines and 400V Low Voltage (LV) lines absorbing power from 132kV and 220kV Transmission System via Grid Substations (GSS).

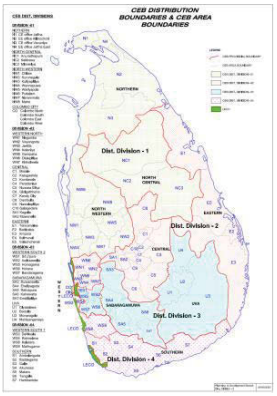
Distribution system of CEB consists of four Divisions. The main objectives of the formation of four divisions are to achieve benchmark competition to improve efficiency and quality of supply to the consumers. Each Division is headed by an Additional General Manager who is directly reporting to the General Manager. It has been decided to reorganize the distribution divisions to improve the supply reliability and service quality. Reorganization of distribution divisions proposed for year 2021 and 2022 are given below:

Divisions	Provinces	
	Year 2021	Year 2022
DD1	Colombo City, North Western Province-I, **North Western Province-II**, North Central Province, Northern Province	Colombo City, North Western Province-I, North Western Province-II, North Central Province, Northern Province
DD2	Western Province North, Central Province I, **Central Province II**, Eastern Province.	Western Province North- I, **Western Province North- II** Central Province, Eastern Province.
DD3	Western Province South-II, Uva, Sabaragamuwa	Western Province South-II, Uva, Sabaragamuwa
DD4	Western Province South-I, Southern Province –I, **Southern Province-II**	Western Province South-I, Southern Province –I, Southern Province-II

Note: Newly introduced Provinces are highlighted

4.1 Operational Structure

The Distribution Divisions are divided into provinces and each Province is headed by a Deputy General Manager. The Province is sub-divided into several Areas, which are managed by Area Electrical Engineers. The Area is further subdivided into several Consumer Service Centres (CSC) headed by an Electrical Superintendent.



In addition to the Provincial Deputy General Managers, there are three Deputy General Managers to look after Projects and Heavy Maintenance, Planning and Development and Commercial and Corporate functions of the Division. Division 1 has special Branch for Rural Electrification (RE) and Projects which is headed by a Deputy General Manager.

4.2 Divisional Distribution Infrastructure as at 01st January 2021

Description	Units	DD1	DD2	DD3	DD4	Total
33kV Distribution Lines (Overhead & Underground)	km	11,135	9,999	7,379	4,744	33,257
11kV Distribution Lines (Overhead & Underground)	km	1,530	570	45	246	2,391
No. of 33/11kV Primary Sub-stations	Nos.	51	29	12	41	133
LV Distribution lines (Overhead & Underground)	km	47,290	41,663	32,517	29,517	150,987
No. of LV Distribution Sub-stations	Nos.	12,174	10,688	6,456	5,337	34,655

4.3 Divisional Operational Statistics as at 30th June 2021

Description	Unit	DD1	DD2	DD3	DD4
Energy sold	GWh	2,019	2,310	1,322	984
Billed Revenue	LKR Million	35,578	36,630	21,438	16,497
New connections	Nos.	40,704	93,819	35,690	62,753
Retail Consumers (New added)	Nos.	22,339	93,737	32,894	62,726
Bulk Supply Consumers (New added)	Nos.	18,365	82	2,796	27

According to above statistics, the CEB 's distribution system comprises of more than 34,600 Substations fed by a network of around 35,700 km of medium voltage lines.

At the beginning of 2021, there were 237 Customer Service Centres and 81 Point of Sale (POS) centres for collection of bill payments.

The transmission and distribution losses have been brought down to 8.33% by the end of June 2021.

4.4 Work Performed under Different Funding Agencies

Distribution Division 01

Electricity supply has been given to 19,000 households under "Eectricity for All" project at a total cost of LKR 390 Million.

Further 13.9 km of HT cables and 9.4km of LT cables were layed and 40 numbers of substations were constructed during the year 2021.

In addition following works have also been perfomed during the year 2021 up to June 2021.

Branch	No	Name of Project/funding	HT(km)	LT(km)	No of Substations	Disbursement (LKR Million)
P&HM	1	Construction of 33kV Lynx D/C Tower Line from Nochchiyagama to Anuradhapura (CEB Funds) 28km	Stringing of 8.4 km section	-	-	50
	2	Construction of 33kV Lynx D/C Tower Line from Ganewalpola to Kekirawa (CEB Funds) 7.5km	Foundation 18%, Erection 40%	-	-	23.5
	3	Shifting of 3 Towers at Rajarata University Premises Mihinthale at Anuradhapura Old GSS – Mihinthale Line (AP-07) (CR Job)	0.343	-	-	22
	4	Construction of 33kV 150mm2 four Circuit MV ABC Pole Line at Anuradhapura Grid Sub (CEB Fund)	0.225	-	-	9.9
	5	Maintenance of 33kV tower lines (CEB Funds)	628.3	-	-	22.5
	6	1 x 5MVA, 33kV/11kV Primary Substation at Punkankulam, Jaffna	-	-	1	29.5

Branch	No	Name of Project/funding	HT(km)	LT(km)	No of Substations	Disbursement (LKR Million)
	8	2 x 5MVA, 33kV/11kV Primary Substation at Nattandiya, Puttalam	-	-	2	47.7
		2 x 5MVA, 33kV/11kV Primary Substation at Pubudupura, Anuradhapura	-	-	2	43.25
NWP-2	1	SA	1.52	0.30	5	13.99
	2	BS/CP	0.46	3.11	5	23.09
	3	RE/PCB/DCB		1.56		2.77
NWP-1	1	SYA	19.7	6.75	55	215
	2	AMU	1.6	0	0	29
	3	RE/PCB/DCB	0	6	0	3.4
NP	1	SYA (CEB Fund)	71.89	43.68	19	346.32
	2	Rural electrification	1.9	17.6	3	46.69
NCP	1	SYA	31.2	19.9	82	228.5
	2	Cost Paid /CR	1.6	1	4	38.3
	3	RE / Vidularnu Lanka	-	8.3	-	16.2
P&HM	1	Supporting Electricity Supply Reliability Improvement Project (USD 1= LKR 200)	Package 4:Construction of 33kV tower lines and 33kV 2SSBB gantries. Package 6:Construction of Hybrid renewable energy systems			(Foreign) 2,692.06 (Foreign Related Domestic) 895.00

Distribution Division 02

Works carried out under different funding sources including CEB funds during the year 2021 in Distribution Division 02 are given below:

Name of Project Funding	HT (km)	LT(km)	No.of Substation	Disbursement (LKR Million)
BS	8.71	0.99	51	130.22
SYA	276.94	552.89	139	2,754.06
CP	2.54	28.51	11	95.64

Distribution Division 03

Works carried out under different funding sources including CEB funds during the year 2021 in Distribution Division 03 are given below:

No.	Province	Name of the Funding	HT (km)	LT (km)	Convert ABC	No. of S/S	Gantry	Disbursement (LKR Million)
1	Sabaragamuwa	SYA	56.36	4.035	-	60	1	302.58
2	Uva	Heenyaya Indipelessa Village Scheme/ CEB RE Funds	1.95	0.575	-	1	-	15.64
3	Uva	Kaluwala Akkara 100 Kumarathenna and Welanwita Scheme/ CEB RE Funds	10.3	9.99	-	3	-	61.27

4	Uva	Kalukele Scheme/ CEB RE Funds	3.1	2.71	-	1	-	14.78
5	Uva	Gonagan ara housing scheme project ext/ CEB RE Funds	-	0.4	-	-	-	1.41
6	Uva	Thissen Viharaya ext/ CEB RE Funds	-	0.75	-	-	-	1.31
7	Uva	Lihiniyagolla ext/ CEB RE Funds	-	3.52	-	-	-	4.93
8	Uva	Parakramapura ext/ CEB RE Funds-	-	0.55	-	-	-	1.05
9	Uva	Dadayamthalawa ext/ CEB RE Funds	-	1.21	-	-	-	2.19
10	Uva	Dunumalgashandiya Mahalunuka ext/ CEB RE Funds	-	1.95	-	-	-	3.73
11	Uva	Kuttiyagolla angodawatta ext/ CEB RE Funds	-	1	-	-	-	1.93
12	Uva	System Augmentation & MV Plan (66 No.of jobs)	21.28	276.56	-	29	-	504.25
13	WPS II	SYA	Bare - 5.42 ABC - 0.4	303.25	8.575	23	-	22.52

Distribution Division 04

Works carried out under different funding sources including CEB funds during the year 2021 in Distribution Division 04 are given below:

Name of the Project	HT (km)	LT (km)	No. of Substations	Disbursement LKR Million	Remarks
LSSEP (Leco Supply Source Enhancement Project)	20	-	07-New 02- Augmentation	2000	01 PSS in 2021 (Up to 2021/06/30- LKR 15 Million
MWNEIP (Medium Voltage Network efficiency Improvement Project)	71	-	01-New 02- Augmentation	5330	Including newly tendered 11km of tower line.
SCADA Project				1220	-
Dehiwala Smart Metering Project				1000	-
CEB Headquarters Building				4775	-

4.5 75kW Solar PV Project

Performance and programs for 75kW Solar PV project is given below:

Dist. Div.	Province	Area	No. of projec	Expected No. of Projects 2021	2022	2022	2022	2022
DD 01	Northern Province	Jaffna	69	4	10	10	10	10
		Killinochchi	65	-	10	10	10	10
		Vavunia	85	-	10	10	10	10
	North Central Province	Anuradhapura	250	6	15	15	15	15
		Kekirawa	250	18	15	15	15	15
		Minneriya	250	17	15	15	15	15
	North Western Province 1	Chilaw	167	5	10	10	10	10
		Kuliyapitiya	269	11	15	15	15	15
		Puttalam	309	-	15	15	15	15
		Wennappuwa	325	11	15	15	15	15
	North Western Province 2	Kurunegala	281	1	15	15	15	15
		Maho	69	9	10	10	10	10
		Narammala	245	2	15	15	15	15
		Wariyapola	90	-	5	5	5	5
DD 02	Central Province 1	Dambulla	108	7	10	10	10	10
		Galagedara	31	-	5	5	5	5
		Kundasale	126	13	10	10	10	10
	Central Province 2	Mawanella	84	-	5	5	5	5
		Peradeniya	107	-	5	5	5	5
	Eastern Province	Ampara	136	4	15	15	15	15
		Batticaloa	184	-	15	15	15	15
		Trincomalee	120	-	15	15	15	15
	Western Province	Divulapitiya	74	1	5	5	5	5
		Veyangoda	113	-	5	5	5	5
DD 03	Sabaragamuwa Province	Eheliyagoda	231	4	15	15	15	15
		Embilipitiya	261	16	15	15	15	15
		Kahawatta	225	2	15	15	15	15
		Ruwanwella	227	-	5	5	5	5
	Uva Province	Diyatalawa	61	16	10	10	10	10
		Mahiyanganayaa	95	20	10	10	10	10
		Monaragala	151	11	5	5	5	5
	WPS II	Avissawella	90	-	5	5	5	5
		Bandaragama	43	4	5	5	5	5
DD 04	Southern Province 1	Akuressa	198	1	15	15	15	15
		Ambalangoda	189	3	15	15	15	15
		Baddegama	179	-	15	15	15	15
		Galle	149	3	10	10	10	10
	Southern Province 2	Hambanthota	245	2	15	15	15	15
		Matara	192	1	10	10	10	10
		Tangalle	234	1	15	15	15	15
	WPS I	Kalutara	121	1	5	5	5	5
		Matugama	200	1	5	5	5	5
Total			**6898**	**195**	**455**	**455**	**455**	**455**

5. Programmes for Year 2022

5.1 Generation and Transmission Development /Rehabilitation Projects

All generation and transmission development/rehabilitations projects which completion dates are beyond 2021 will be continued in the year 2022 and fund allocations will be required accordingly.

Further approximately LKR 345.5 Million fund commitment will required to be arranged from foreign or local funding agencies to commence transmission developments identified under section 3.2 above.

5.2 Electric Vehicle Charging Stations

The present global developments in automobile industry are heading for Electric Vehicles (EV). The internal combustion engines have also transformed in to plug-in hybrid mode in the recent past and have now become a proven technology of electric vehicles. Sri Lanka is also embracing the new electric vehicle technology and it is evident in the recent marketing promotions taking place. It is learnt that there are many entrants into this EV and EV charging equipment market in Sri Lanka.

As the electricity utility, CEB has a major concern over the adoption of EV in Sri Lanka in the light of negative effects of charging of electric vehicles by unabated use of grid electricity. The daily load profile of Sri Lanka has a significant night peak and the introduction of EV will further contribute the night peak negatively, since the unrestrained consumer behavior of charging of EVs do take place during the same peak hour period, as seen by various studies conducted in other countries.

Under these circumstances, impact of EV charging on system demand profile, distribution assets, voltage profile and voltage stability are needed to be studied. Furthermore, the harmonics, inrush currents and power factor of the EV charging load are required to be monitored in order to ascertain the overall impact of EV charging on the power grid.

Futher , it has been planned to establish 10 nos. of EVCS duing year 2022 to popularize EV use in order to manage system load profile and hereby to reduce the carbon foot print and convey the message of EV use among general public. The estimated cost for the same for the year 2022 is LKR 60 Million.

5.3 Programs for Distridution Divisions

Following programes are planned to be done during year 2022 (as per Medium Voltage Distribution Development Plan) under each Distribution Division.

5.3.1 Distribution Division 1

Projects Heavy Maintainance Branch

No.	Description	No./ km	Cost (LKR Million)
1	Construction of 33kV Lynx Double Circuit Tower Line from Hingurakgoda to Medirigiriya	11	302.50
2	Construction of 33kV Lynx Double Circuit Tower Line from Polonnaruwa to Manampitiya	0.8	22.00
3	Construction of 33kV Lynx Double Circuit Tower Line from Habarana to Galenbindunuwewa	16.5	453.75
4	Construction of 33kV Lynx Double Circuit Tower Line from Kuliyapitiya Gantry to Meegahakotuwa	2	55.00
5	2 x 5MVA, 33kV/11kV Primary Substation at Chilaw, Puttalam	1	65.00
6	2 x 5MVA, 33kV/11kV Primary Substation at Palakudha, Puttalam	1	65.00
7	1 x 5MVA, 33kV/11kV Primary Substation (St. Joseph) at Anuradhapura	1	30.00

North Western Province 1

No.	Description	No./km	Cost (LKR Million)
1	Construction of PSS	3	119.00
2	Installation of Auto Reclosers	6	24.00
3	Installation of Load Break Switches	16	36.80
4	Construction of New MV Lines(Racoon/LYNX)	23.3	98.30
5	Conversioon of Existing MV lines (Pole Lines)	101.2	382.50
6	Replace 2km long double circuit Racoon line from Kuliyapitiya Gantry to Meegahakotuwa with Elm conductor.	2	55.00
Note: No. 4 to 6 are short term proposals			

North Western Province 2

No.	Description	No./km	Cost (LKR Million)
1	Construction of Gantries	5	187.00
2	Installation of Auto Reclosers	15	60.00
3	Installation of Load Break Switches	24	55.20
4	Construction of New MV Lines(Racoon/LYNX)	24.8	104.40
5	Conversion of Existing MV lines (Pole Lines)	78.6	227.90
6	Conversion of MV Lines from 11kV to 33kV	7.6	7.60
7	Rehabilitate Racoon Double Circuit Tower line (F2 & F3) to Lynx Double Circuit Tower line from Kurunegala GSS to Wehera Gantry	5	137.50
8	Convert Thulhiriya GSS to Maharagama Ganry SC Tower Line to DC Lynx Tower Line or re-conduct line with High Current Capacity Conductor	12	330.00

Note: No. 4 to 9 are short term proposals

North Central Province

No.	Description	Estimated Cost (LKR Miillion)
1	AVR at Diyabeduma 16.0	16.0
2	33kV Interconnection from Kuda Ahatuwewa to Navodagama	9.4
3	Weasel to Racoon conversion from Kuda Ahatuwewa to Maningamu-wa Junction	8.3
4	Weasel to Racoon conversion from Ralapanawa to Ranorawa	8.9
5	Interconnection between Daluggala and Welialagama Jayanthiya	7.2
6	Weasel to Racoon conversion from Palugama Junction to Dombawal-agama	6.3
7	Distribution Feeders of Nochchiyagama gantry- Rajanganaya Feeder	16
8	Interconnection between Sinhala Ataweerawewa and Kurulugama and feeding Kapugollewa via Kebithigollewa Gantry	9.1
9	Converting Racoon to Lynx from 6 pole gantry to Hospital Primary	2.7
10	Racoon -Lynx Conversion from Hospital Primary to 4-pole gantry	0.7
11	11 kV to 33 kV Conversion of outside Sacred City part I	0.8
12	Distribution Feeders of Mahailuppallama gantry	40
13	Interconnection between Egoda Hurigaswewa and Katiyawa	10.1

Nothern Province

Ref No	Proposal	Expected Year of completion	Present Status	Proposal Type
ST/NP/32	Open DDLO at Thekkankadu. Close DDLO at Kumulamunai Junction.	2022	NS	V
ST/NP/33	Open DDLO at Synohydro. Close Nedunkerni side auto recloser	2022	NS	V, R
ST/NP/34	Open Kilinochchi GSS F5 at Paranthan Junction and connect newly constructed line to Kilinochchi GSS F5 and at Paranthan Junction (Become double Circuit)	2022	NS	V, C
ST/NP/35	Terminate Kilinochchi GSS F3 as double circuit ELM line (at Kilinochchi GSS and Paranthan Gantry)	2022	NS	C
ST/NP/36	Construction of 6km 33kV SCH Racoon line from Paranthan Gantry to Pannankandy Open at Pannankandy	2022	NS	R
ST/NP/37	Conversion of 3.75km SCH ELM line to DCV ELM line from Pesalai PSS to Karasal. Connect Thalai Mannar Road Area from Karasal to Erukkalampiddy to the newly constructed circuit of DC line. Open at Erukkalampiddy Junction,Open AVR at Konnayankudiyirruppu,Open at Thalvupadu	2022	NS	V, C, R
ST/NP/38	Construction of 0.36km 33kV SCH ELM line from Eluththoor Junction to Tharavankoddai. 33kV to 11kV Conversion of Tharavankoddai sub (M038)	2022	NS	R
ST/NP/39	Construction of 0.55km 33kV SCH ELM line from Telecom to Manthai Saltant. 33kV to 11kV conversion of Kadaleri Veethy (M023) and Manthai Saltant (M122) substations	2022	NS	R
ST/NP/40	Construction of 1.65km 33kV ELM line from Hospital Junction to Shanthipuram. 33kV to 11kV conversion of Shanthipuram (M022) and South Bar (M015) substations	2022	NS	R
ST/NP/41	Construction of 2.2km 33kV SCH Racoon line from Adampan to Andankulam. Open at Vannamoddai Junction	2022	NS	V, R
ST/NP/42	Conversion of 1.5km Racoon line to ELM from Eluththoor Junction to Hospital Junction	2022	NS	C
ST/NP/43	Construction of 1.35km 33kV SCH Racoon line from Senkatpadai to Kovil Puliyankulam. Open at IranaiIlluppankulam Junction	2022	NS	R
ST/NP/44	Construction of 2.1km 33kV DCV ELM line to connect Jaffna Express line and Kompayan Express line	2022	NS	R
ST/NP/45	Construct 0.65km 33kV SCH Racoon line and terminate KKS II line to Chunnakam GSS and Connect Cement Factory load to this feeder	2022	NS	C
ST/NP/46	Increase Punkankulam PSS'S tap by one tap position.	2022	NS	V

Note: NS-Not Started, WP- Work in Progress, C-Completed
V-Voltage Improvement, R-Reliability Improvement, C- Capacity Enhancement

Medium Term and Longterm Proposals

Summary of Proposed MV Lines & Auto Voltage Regulators

Ref No	Proposal	Type	Length	Expected Year of completion	Present status	Proposal Type
MV/NP/09	Install AVR at Kumulamunai Junction.	33kV, 100A	1No.	2022	NS	V
MV/NP/10	Kilinochchi GSS to Paranthan Junction	33kV DCV ELM	9.1km	2022	NS	V, C
MV/NP/11	Nadukkuda GSS to Pesalai	33kV SCH ELM	4.75km	2022	NS	V, C, R

Summary of Proposals associated to Primary Sub Stations

Ref No	Proposal	Expected Year of completion	Present status	Proposal Type
PS/NP/03	Commissioning of 2*5MVA PSS in Pesalai	2022	NS	V, C, R

Summary of Proposed Load Break Switches -33kV SF6 Type

Ref No	Proposal	Ref No	Proposal
LBS/NP/16	Wattrapalai spur	LBS/NP/22	Kalmadu
LBS/NP/17	Ampan	LBS/NP/23	Puliyampokkanai
LBS/NP/18	Keraitivu Road, Navatkuli	LBS/NP/24	Puttur spur
LBS/NP/19	Kondavil Junction	LBS/NP/25	Saddanathar
LBS/NP/20	Methar Manipay	LBS/NP/26	Puttur Junction Meesalai
LBS/NP/21	Pallavarayankaddu		

Colombo City

Proposed Development	Length
Laying 400mm^2/1C radial Cables	1.5 km
Replacing existing Radial cables by 400mm^2/1C cables	1.9 km
Replacing the ring network by 240mm^2/3C cable	5.75 km

Electricity for All Project

LKR 4.5 Billion allocation will be required for year 2022 to continue the “Electricity for ALL (Deyata Eliya)” project in year 2022.

5.3.2 Distribution Division 2

Ref. No	Province	Year	Description	Type	Length (km)	Estimated Cost (LKR Million)
LT/19-28/L/CP/36	CP	2022	Hasalaka Gantry to Hettipola Gantry	33kV SC Lynx Pole	24	110.4
LT/19-28/L/CP/37	CP	2022	Lindula Gantry to Pathana Gantry		3	13.8
LT/19-28/L/CP/38	CP	2022	Rikillagaskada GS to Hanguranketha Gantry	33kV DC Lynx Tower	6	150

Ref. No	Province	Year	Description	Type	Length (km)	Estimated Cost (LKR Million)
LT/19-28/L/WPN/97	WPN	2022	Bambukuliya to Kochchikade PSS (To tap Negombo GSS feeder)	33kV DC Lynx Pole	2.8	23
LT/19-28/L/WPN/104	WPN	2022	Proposed Kotadeniyawa GSS to Welihinda Junction [33kV SC Lynx Pole line on existing DC line]	33kV SC Lynx Pole	5.2	24
LT/19-28/G/CP/22	CP	2022	Hanguranketha	SBB 2SEC Pole	1	25
LT/19-28/G/WPN/24	WPN	2022	Bambukuliya		1	25
LT/19-28/G/WPN/25	WPN	2022	Godigamuwa		1	25
LT/19-28/G/WPN/26	WPN	2022	Nalla		1	25
LT/19-28/G/WPN/27	WPN	2022	Kithulwala	SBB 2SEC Pole	1	25
LT/19-28/G/WPN/28	WPN	2022	Kotadeniyawa		1	25
LT/19-28/GM/WPN/19	WPN	2022	Dunagaha	DBB 2SEC Pole	1	10
LT/19-28/CV/WPN/88	WPN	2022	Pannala Fe05 disrtibutor from Katukenda Gantry to Badalgama ABS	33kV SC Lynx Pole	3.3	15.2
LT/19-28/UG/CP/11	CP	2022	Kandy City GSS to WGM RSS	11kV 3 x 1C 400 mm^2 Cu	2.50	137.5
LT/19-28/UG/CP/12	CP	2022	Kandy City GSS to Suduhumpola RSS		0.60	33.0
LT/19-28/UG/CP/13	CP	2022	Kandy City GSS to Power House RSS		1.10	60.5
LT/19-28/UG/CP/14	CP	2022	Kandy City GSS to Provincial Council RSS		1.80	99.0
LT/19-28/UG/CP/15	CP	2022	Kandy City GSS to Dodanwala RSS		3.00	165.0
LT/19-28/UG/CP/16	CP	2022	Kandy City GSS to Hospital RSS		0.50	27.5
LT/19-28/UG/CP/17	CP	2022	Hospital RSS to NTS RSS and extend to Bogambara PSS		0.80	44.0
LT/19-28/UG/CP/18	CP	2022	Kandy City GSS to Bogambara PSS		1.10	60.5
LT/19-28/RSS/CP/09	CP	2022	Suduhumpola RSS	1 Panel		1.5
LT/19-28/RSS/CP/10	CP	2022	William Gopallawa MW RSS	1 Panel		1.5
LT/19-28/RSS/CP/11	CP	2022	Bogambara RSS	12 Panels		18.0
LT/19-28/RSS/CP/12	CP	2022	Gatambe RSS	8 Panels		12.0
LT/19-28/RSS/CP/13	CP	2022	NTS RSS	2 Panels		3.0
LT/19-28/RSS/CP/14	CP	2022	Hospital RSS	6 Panels		9.0

5.3.3 Distribution Division 3

Ref No.	Province	Year	Area	Proposal	Type	Quantity
1	Sab	2022	Eheliyagoda	Interconnection line from Pathagama ARC to Thembiliyana Kuruwita Town S/S (E093)	S/C, Raccoon, 2nd CCT	4.7km
2	Sab	2022	Eheliyagoda	Interconnection 33kV S/C Raccoon line from Pathagama S/S (E081) to Halpe New S/S (L092)	S/C, Raccoon	1.5km
3	Sab	2022	Eheliyagoda	Reconductoring from Gorakaela S/S (L019) to Halpe S/S (L020)	S/C, Raccoon	2km
4	Sab	2022	Eheliyagoda	Interconnection line from Dumbara Manana S/S (L043) to Gawaragiriya 2 S/S (L047)	S/C, Raccoon	3.5km
5	Sab	2022	Eheliyagoda	Interconnecting Nedurana Junction S/S (G053) to Bulugahapitiya Piriwena S/S (G129)	S/C, Raccoon	700m
6	Sab	2022	Eheliyagoda	Construction of Idangoda Gantry	2SSBB	-
7	Sab	2022	Embilipitiya	Interconnection line from Jandura S/S (U028) to Alubowelketiya S/S (U056)	S/C, Raccoon	4km
8	Sab	2022	Embilipitiya	Reconductoring from Koppankanda S/S (U018) to Kella S/S (U015)	S/C, Raccoon	5.5km
9	Sab	2022	Embilipitiya	All reconductoring from Kella S/S (U015) to Ereporuwa S/S (U012)	S/C, Raccoon	5.5km
10	Sab	2022	Embilipitiya	Interconnection from Pitakanda S/S (S038) to Weligepola S/S (S030)	S/C, Raccoon	1.6km
11	Sab	2022	Embilipitiya	Reconductoring from Danduma S/S (W016) to Sewanagala Housing Scheme S/S (W020)	S/C, Raccoon	3.6km
12	Sab	2022	Embilipitiya	Interconnection line from Gemunupura S/S (W015) to F4 Tower Line	S/C, Raccoon	1km
13	Sab	2022	Kahawatta	Outgoing feeder for Pambahinna from Belihuloya Gantry	S/C, Lynx, Pole	200m
14	Sab	2022	Kahawatta	Interconnecting Oluganthota - Marathenna Section (Bal F1) to Oluganthota Pambahinna Section (Bal F7)	S/C, Raccoon	200m
15	Sab	2022	Kahawatta	Interconnecting Balangoda GSS - Oluganthota Section to Balangoda Feeder 01 near Balangoda GSS	S/C, Raccoon	200m
16	Sab	2022	Kahawatta	Interconnection line from Meddekanda S/S (P013) to Gurubewila S/S (P078)	S/C, Raccoon	1.5km

17	Sab	2022	Kahawatta	New line from Kalthota S/S (M028) to Welioya S/S (M063)	S/C, Raccoon, 2nd CCT	2.5km
18	Sab	2022	Kahawatta	Interconnection line from Nahalwathura SS (Q041) to Madalagama New S/S	S/C, Raccoon	2km
19	Sab	2022	Kahawatta	Construction of Belihuloya Gantry	4-Pole Gantry	-
20	Sab	2022	Ratnapura	Interconnection line from Ratnapura Hospital (F051) to General Hospital Water Pump (F017) MV line	ABC, Pole	250m
21	Sab	2022	Ruwanwella	Interconnection line from Telecom S/S (O012) to Food City S/S (O075)	S/C, Raccoon	1km
22	Sab	2022	Ruwanwella	Interconnection line from Angunna S/S (O072) to Kendawa S/S (O020)	S/C, Raccoon	800m
23	Sab	2022	Ruwanwella	Interconnection line from Yakella S/S (O074) to Punahela S/S (O006)	S/C, Raccoon	1.5km
24	Sab	2022	Ruwanwella	Cu to Raccoon conversion from Wagolla Estate S/S (O010) to Wagolla ABS	S/C, Raccoon	1km
25	Sab	2022	Ruwanwella	Interconnection line from Getiyamulla RE (O033) to Alawatura Bridge	S/C, Raccoon	1.9km
26	Sab	2022	Ruwanwella	Reconductoring from Gurugalla junction DDLO to Daigala (N004)	S/C, Raccoon	4.5km
27	Sab	2022	Ruwanwella	Interconnection line from Moraliya (N003) to Ruwanwella estate (A056)	S/C, Raccoon	2.8km
28	Sab	2022	Ruwanwella	Interconnection line from Wharaka Basnagoda (N025) to Malwanakanda (N054)	S/C, Raccoon	3.2km
29	Sab	2022	Ruwanwella	Augmenting existing Epalapitiya Gantry with 2 outgoing feeders	4-Pole Gantry	-
30	Sab	2022	Ruwanwella	Construction of Kotiyakumbura Gantry	2SSBB	-
31	Uva	2022	Monaragala	Conversion of existing Weasel line to Racoon (Mahagodayaya to Maligawila)	-	13.75km
32	Uva	2022	Diyatalawa	Conversion of existing Weasel line to Racoon (Haputale to Glenaore-Rathkarawwa)	-	14.0km
33	Uva	2022	Diyatalawa	Conversion of existing Weasel line to Racoon (Lunuwatte MR gap to Bambarapana)	-	9.0km
34	Uva	2022	Diyatalawa	Conversion of existing Weasel line to Racoon & Re-routing (Welimada to Boralanda)	-	10.0km
35	Uva	2022	Monaragala	MV line re-arrangement to connect feeders to Wellawaya Gantry	-	7km

36	Uva	2022	Monaragala	MV line re-arrangement to connect feeders to Bibila Gantry	-	5km
37	Uva	2022	Badulla	Conversion of part of Badulla town feeder in to MV ABC	-	3.5km
38	Uva	2022	Diyatalawa	Augmentation of Haputale Gantry – 4ARs, 1LBS	-	-
39	WPS II	2022	Avissawella	Interconnection Racoon Line from PD027 to PD034	-	-
40	WPS II	2022	Avissawella	Conversion of existing 33kV weasel pole line into Racoon pole line from HN027 to HN029 with all the spurs	-	-
41	WPS II	2022	Avissawella	Reconductoring of HT Line from 46AVI010 to 46AVD009	-	-
42	WPS II	2022	Avissawella	Moonamale gantry to Pahathgama Near 46HND006 - with CR job to Royal Casks	-	-
43	WPS II	2022	Avissawella	Construction of interconnection line from PD030 to Meegoda feeder	-	-
44	WPS II	2022	Avissawella	Shifting of 33kV Racoon pole line (AVSM380)	-	-
45	WPS II	2022	Avissawella	Construction of interconnection line from AV128 to HN005	-	-
46	WPS II	2022	Avissawella	Conversion of existing Weasel line to Racoon PD025 to PD026	-	-
47	WPS II	2022	Avissawella	Switching arrangement change of KOS F01, Kos F6 to be extended up to Royal Casks Distrilleries	-	-
48	WPS II	2022	Bandaragama	Construction of 33kV S/C Pole line from Raigama Gantry to Millaniya	-	-
49	WPS II	2022	Bandaragama	Related SYA Proposals to absorb WPSI Transformers near Elamodara	-	-
50	WPS II	2022	Bandaragama	Conversion of existing Racoon line to Lynx from BG035 to 65BGL007	-	-
51	WPS II	2022	Homagama	Rehabilitation, Reconductoring and Shifting of existing lines from Walawwa DDLO to Habanhenawatta, HM -125, to Railway crossing	-	-
52	WPS II	2022	Homagama	Conversion of existing Racoon line to Lynx from Mattegoda Road to Makumbura ABS	-	-
53	WPS II	2022	Homagama	Racoon to Lynx conversion from Homagama Junction to Dayananda DDLO	-	-
54	WPS II	2022	Homagama	Conversion of exsiting Racoon line to Lynx line from Makumbura Gantry to 41HML001	-	-

55	WPS II	2022	Homgama	Construction of new 33kV Racoon interconnection pole line from PN139 to PN066- Revision of the proposal	-	-
56	WPS II	2022	Horana	Utilize abundent tower line to Sabaragamuwa & connects substations belongs to Ingiriya CSC (Imagira)	-	-
57	WPS II	2022	Horana	Conversion of existing Weasel Line to Racoon from HR059 to HR130	-	-
58	WPS II	2022	Horana	Rearrangement of Hor. F2, Hor. F5 and Hor. F7	-	-
59	WPS II	2022	Horana	Construction of new 33kV interconnection line from HR051 to HR131	-	-
60	WPS II	2022	Horana	Construction of interconnection line from HR163 to Panadura Road	-	-
61	WPS II	2022	Horana	Construction of interconnection line from HR189 to HR011	-	-
62	WPS II	2022	Horana	Construction of 33kV Lynx line from Raigama to Narthupana	-	-
63	WPS II	2022	Horana	Conversion of Weasel to Racoon from HR215 to HR056, HR014	-	-
64	WPS II	2022	Horana	Conversion of Weasel to Racoon from HR029 to HR078, HR103, 102,HR160	-	-
65	WPS II	2022	SJP	Shifting of SJP F1 & SJP F2 to maintain horizontal clearance to new Pelawatta PSS	-	-
66	WPS II	2022	SJP	Conversion of Racoon line in to Lynx from Palnthuna to Aggonawela gantry	-	-
67	WPS II	2022	SJP	Converting 33kV OH line to 11kV OH line in Subuthipura Road (including S/Ss)	-	-
68	WPS II	2022	SJP	Converting 33kV OH line to 11kV OH line in Udumulla Road (including S/Ss)	-	-
69	WPS II	2022	SJP	Construction of 11kV interconnection between Udumulla road and Subuthipura road	-	-
70	WPS II	2022	SJP	Conversion of 11kV Substations in to 33kV Substations from Pelawatta Junction to Thalawathugoda side-	-	-
71	WPS II	2022	SJP	Relocate the 33kV HT line inside the Mulleriyawa hospital towards Mandawila from Walpola Junction - 0.516 km	-	-

72	WPS II	2022	SJP	UGB Proposals construction of 33kV line from suhurupaya to Sethsiripaya (UG+OH)	-	-
73	WPS II	2022	Horana	Convert existing Racoon SC Tower line in to Lynx line from Handupelpola to Beruketiya along the existing Tower route + Existing road where possible	-	-
74	WPS II	2022	SJP	Conversion of Racoon to Lynx from Ambathale Gantry to 42WLA009	-	-
75	WPS II	2022	SJP	Conversion of Racoon to Lynx from 42MBR003 to 42MBD043	-	-
76	WPS II	2022	SJP	Laying of 2 Nos of 33kV/3C/XLPE/240 sqmm UG cables in line with the implementation of new gantry at Kimbulawala	33kV/3C/XLPE/240 sqmm UG	0.5km
77	WPS II	2022	Bandaragama	Construction of 33kV Lynx DC tower lines from Pulaton GSS to Raigama - Galapatha	33kV Double Cct Lynx Tower Line	13km
78	WPS II	2022	Bandaragama	3SSBB Gantry at Raigama Industrial zone	3SSBB	-
79	WPS II	2022	SJP	Construction 33kV double cct Lynx pole line from proposed Malabe GSS to proposed gantry near Chandrika Kumarathunga Mw	33kV Double CCt Lynx Tower Line	0.5km
80	WPS II	2022	SJP	Implementation 2SSBB Gantry at Chandrika Kumarathunga Mw	2SSBB	-
81	WPS II	2022	SJP	Construction of new 33kV Lynx line from proposed Malambe GSS towards Koswatta PSS	33kV Single Cct Lynx Pole Line	4.7km
82	WPS II	2022	SJP	Consruction of new feeder from Malabe GSS to Malabe Town	33kV Single Cct Lynx Tower Line	1km
83	WPS II	2022	SJP	Construction of new interconnection from Malabe GSS to Athurugiriya F2 as alternative	33kV Single Cct Lynx Tower Line	1km
84	WPS II	2022	SJP	Arranging Power Supply to Koswatta PSS from SJP GSS using abundent Lynx Line from 11 kV Network due to UG Project	33kV Single Cct Lynx Pole Line	1.5km
85	WPS II	2022	SJP	Construction of 33kV double cct Lynx pole line from proposed gantry at Chandrika Kumarathunga Mw to IT Park	33kV Double Cct Lynx Tower Line	0.8km
86	WPS II	2022	SJP	New feeder ararngement from proposed gantry at Chandrika Kumarathunga Mw to Amabathale gantry and Arangala gantry	-	-
87	WPS II	2022	SJP	New feeder from Malabe GSS to Athurugiriya F6	Single Cct Lynx Tower Line	3km

5.3.4 Distribution Division 4

Ref. No	Province	Year	Description	Type	Length (km)	Estimated Cost (LKR Million
ST/SP/38	SP 2	2022	Reconductoring of 33kV Racoon line to ELM from Tissa to Yodakandiya –3km	Raccoon to ELM	3	7.5
	SP 2	2022	Interconnection of 33kV Racoon pole line from Co-op mill (HA 162) to Beragama Hospital Sub (HA 092)- 1km	S/C, Raccoon	1	3
	SP 2	2022	Interconnection of 33kV Racoon pole line from Beralihela 3 colony (HK 020) to Muthiyammalgama (HT 311) – 2.1km	S/C, Raccoon	2.1	6.3
	SP 2	2022	Interconnection of 33kV Racoon pole line from Madunagala Aranya (HA 152) to Office & Accomadation (HS 191) sub – 3.5km	S/C, Raccoon	3.5	10.5
	SP 1	2022	Reconductoring of 33kV Weasal pole line to Racoon from Rakadahena to Polgahawila – 10km	Weasal to Racoon	10	20
	SP 1	2022	Reconductoring of 33kV Weasal pole line to Racoon from Gangabada DDLO to Mahalapitiya DDLO- 5km	Weasal to Racoon	5	10
	SP 1	2022	Reconductoring of 33kV Weasal pole line to Racoon from Wijaya Group (BW 290) to Unanvitiya DDLO- 6km	Weasal to Racoon	6	12
	SP 2	2022	Interconnection of 33kV Racoon pole line from ketiayape (MH 355) to Walasmulla (TW 356) – 2.5km	S/C, Raccoon	2.5	7.5

In addition to above programs for 75kW Solar PV program will be continued during the 2022 as metioned in item 4.5 above.

6. Financial Performance for year 2021

Supply of electricity being an essential service, CEB continued to carry out its main operations of generation, transmission and distribution of electricity uninterruptedly throughout the country despite the challenges faced following the outbreak of the COVID-19 pandemic.

The financial year 2021 is another crucial year for CEB with a budgeted Net Loss of LKR 80 Billion predominantly due to non-cost reflective tariff and the delay in implementation of the proposed least-cost power generation projects. With the existing pandemic situation in the country, CEB has been undergoing a severe drying off situation of its revenue stream.

CEB was estimated 15,798GWh of energy sales for year 2021 which is 11% growth against year 2020 sales in units. In order to fulfil the growing energy demand, CEB was anticipated 13% (LKR 24 Billion) upturn in its Direct Generation Cost in year 2021. The Energy Demand in the mid-year 2021 was slightly increased contrary to mid-year 2020 which was decreased due to COVID-19 pandemic. The decrease was recorded in the year before, mainly in Industrial, General Purpose and Hotel tariff categories despite the demand growth in the Domestic tariff category. Net Generation in mid-year 2021 has increased by 6% against mid-year 2020 amidst of third wave of the pandemic mostly due to increase in energy demand in Bulk Supply tariff categories. However, the sales growth in units was lower than forecasted sales for year 2021 which caused in requisite of energy purchase from high cost energy sources.

The operating losses were recorded consecutively which was attributable to substantial reliance on thermal oil sources. However, for the period ended 30th June 2021 the recorded loss was LKR 4.5 Billion and the loss has decreased by 79% compared to June 2020. Favourable change in Generation Mix due to low daily electricity consumption as well as improved generation from CEB-Hydro, CEB-Coal and CEB-Wind which refrained operating expensive power plants in the merit order dispatch have primarily affected in aforesaid decrease. Generation from CEB Hydro in April, May and June 2021 was considerably increased in contrast to previous years due to above normal rainfall reported in the Country. Accordingly, CEB was able to fulfil energy demand of the first half of the year with not as much of contribution from high cost thermal power sources. However, it will be anticipated that the demand for electricity consumption will increase in the second half of the year upon lifting of island wide health

restrictions imposed due to COVID-19. Consequently, Direct Generation cost will be increased with the growth of energy generation form high cost energy sources in order to fulfil the daily demand.

The prevailing increased rainfall condition in the country mainly in May and June 2021 has reduced the requisite of generation from high cost thermal energy sources such as power purchasing from Independent Power Producers -Thermal. Most of reservoirs reported above average rainfall in said months enhancing power generation from CEB-Hydro and contributed 51% of Net Generation in the month of June 2021. Marking a historic milestone in Sri Lanka's power generation, CEB-Thambapawani Wind power plant as Sri Lanka's largest wind powered plant, was generated 100GWh during the first half of the year.

Increase in contribution from CEB-Hydro, CEB-Coal and CEB-Wind in the generation mix (66% from total net generation) was constructively affected on financial performance against the previous year. With the concessionary fuel prices, namely Furnace Oil (w.e.f. 19.03.2020), CEB was able to reduce energy cost of Thermal Plants by 22% (LKR 4 Billion) when compared to June 2020. Simultaneously, drop in reliance on Purchased Power-Thermal by 29% along with issue of Furnace Oil to IPP-Thermal at a concessionary price were led to decrease in related energy charges by 35% (LKR 14.7 Billion) against June 2020. Aforesaid decrease in direct generation costs were positively contributed towards decrease in Net Loss for the six months period ended 30th June 2021. However, cost incurred on Renewable Energy purchase has increased by LKR 7.8 Billion mainly due to increase in energy generation from Renewable energy sources. Additionally, as a mitigation the Board of Directors has advised to restrict overhead expenditure in order to overcome sever cash flow difficulties faced by CEB due to COVID-19 pandemic.

However, the financial position of CEB as of today has been impaired remarkably to the extent of having a negative retained earning balance in the Statement of Financial Position. The cost is escalating with heavy dependence on high cost thermal oil power generation sources and increasing price of other material while there is no increase of electricity prices during last seven years (since year 2013) to reflect the cost of generation.

Being a public enterprise involve in a major economic activity, CEB is compelled to provide electricity to end consumer at an affordable price. Thus, low end consumers in the domestic category as well as the consumers in industrial, hotel, religious and government category are heavily subsidized as CEB provides electricity at a price which is considerably less than the cost of production which bring the financial viability of the CEB to predicament. As at 30th June 2021, the total Government policy loss (Subsidy) was estimated as LKR 23.8 Billion where the Surplus charged from high end consumers amounted to LKR 15.4 Billion. Accordingly, the loss incurred by CEB for the six month period ended 2021 was recorded as LKR 8.4 Billion and after setting-off of Other Income, the Net Loss for the said period was recorded as LKR 4.5 Billion.

Borrowings and Major Creditors

Due to the unavailability of cost reflective tariff and continuance disturbances in collection process, working capital of CEB has severely affected causing problems in paying major suppliers including Ceylon Petroleum Corporation (CPC), Independent Power Producers (IPP) and financing of coal procurement. In a first-of-its-kind move, as a state owned utility, the CEB has issued LKR 20 Billion worth of Senior, Unsecured, Listed, Redeemable, Rated Debentures with a maturity period of five (5) years on 08th April 2021. Consequently, the debenture issue was oversubscribed on the opening day itself. Received funds were utilized to partially settle the amounts due to Independent Power Producers amounting to LKR 14 Billion and to Ceylon Petroleum Corporation amounting to LKR 6 Billion.

With the substantial payment to IPPs from funds received through debenture issue and monthly partial payments, the outstanding amount was recorded as LKR 51.6 Billion at the end of June 2021 which was at LKR 61.5 Billion at the end of year 2020. Meanwhile the decline in power purchasing from IPP-Thermal due to favourable whether condition as well as decrease in demand due to Covid-19 pandemic has positively affected in the said decrease of liability. However, outstanding amounts to CPC has increased upto LKR 78 Billion as at 30.06.2021 which was at LKR 72 Billion at 31st December 2020 due to insufficient cash flows to settle the outstanding.

Additionally, during the year 2021, CEB borrowed LKR 13 Billion from People's Bank mainly to fi-

nance coal procurement. As at 30th June 2021, the total bank borrowings including overdraft amounted to LKR 114 Billion to finance working capital requirements. In addition, total project borrowings as at 30th June 2021 amounted to LKR 270.5 Billion.

As a source of low cost financing of proposed Renewable Energy projects, CEB is currently studying its framework and the possibility of obtaining funds through "Green Finance Initiatives" as a way of reaching the need of growing energy demand in an environmental friendly manner.

7. Challenges Faced and Strategies Adopted in Addessing such Challenges and Recommedations for Future.

7.1 Requirement of Cost Reflective Tariff

Due to non-declaration of a cost reflective tariff as per the PUCSL approved methodology, CEB has been making net financial losses, annually.

The accumulated financial loss incurred by CEB between the period 2016 – 2021 June is LKR 263,054 Million. The operating net cash flow has been negative and CEB unable to find capital for core business activities unless external financial assistance is provided. This critical financial situation often enforces CEB to obtain long term borrowings to finance its short-term working capital requirements mainly for the procurement of oil and coal. The accumulated total of major payable balances stands at LKR 317 Billion as at May 31, 2021. If no action is taken to arrest the situation, internal studies show that the total debt would be more than LKR 750 Billion by year 2025. The situation will be further aggravated with any increased use of oil, during drought periods at the revised prices of fuel issued from CPC. In the context of present financial situation of CEB, it is a challenge to settle the outstanding payments of IPP and NCRE suppliers on time, which in turn will affect the renewable power policy of the Government.

Therefore, it is recommended to increase the tariff as follows :Energy Charge by 2.50 Rs./kWh, Fixed Charge by 35% and Demand Charge by 35%.

Otherwise subsidy recommended by the Regulator (PUCSL) shall be included in the National Budget and credited to CEB monthly to carryout its activities.

7.2 Governement Policies

Power projects have long gestation periods. Thus, plans are prepared well ahead of the required date to commence development activities in advance. Even planning for power expansion takes considerable time. Therefore, government policies needs to be clear and persistent. Changing and inconsistent Government policies create major challenges and risks ahead to utility planning and project execution

At present coal power development projects has been haulted until firm Government decision is deliverd on future power developments. Further necessary approvals for network expansion plans are also delayed due to the Government policy changes. Therefore, a firm Government policy on electricity sector is required to be adopted immediately in order to take immediate actions on generation developments to ensure cost effective un interrupted power supply.

7.3 Recievables Payable to CEB by Government Institutions

CEB provide services such as hiring, repair and maintenance of emergency power plants and repair and maintenance of lifts and air conditioning plants to various Government institutions as an Unregulated Business. However those Government institutions are in the habbit of not paying for the services once the services are obtained. CEB has to carryout such services with pending payments due to the importance of the places and circumstances. The accumulated sum of unpaid amouts are approximately LKR 297.11 Million.

In the meantime total arrears of electricity bills from Government organizations accumulated to LKR 255.94 Millian as at the end May 2021.

Further GI unit of CEB , Colombo City Branch is responsible for maintaining the internal wiring and associated equipment of Government Institutions and hospitals. Payments for this work is also pending and accumulated to LKR 634.73 Million as at the end June 2021.Therefore it is recommened to allocate funds through the National Budget to settle above due amounts (approximately LKR 1,187.78 Million) to CEB.

Lanka Electricity Company (Pvt.) Ltd.

1 INTRODUCTION

Lanka Electricity Company (Private) Limited (LECO) was incorporated in 1983 under the Companies Act no. 17 of 1982 and the Companies Act No 07 of 2007 for the primary objective of distributing electricity in its franchised area in the prime economic zone of western coastal belt of Sri Lanka from Negombo to Galle. Subsequently by the Electricity Act No 20 of 2009, LECO was brought in to the regulatory domain of the Public Utilities Commission with the issue of a distribution license to the company.

Vision

Enjoy being the light for lives of people through innovative eco-friendly business.

Mission

Providing best energy solution to the society through continuous innovations.

Values

Amazing our customers through innovative services, driven by incessant curiosity to improve and innovative distribution services within an ecologically sustainable environment geared towards optimizing productivity and assuring profitability through a competent and contented staff.

Core Competencies

Engineering, Research, Development and Innovation enhanced through diverse experience in energy sector are the core competencies of the company will invest in diversified activities as long as in line with our vision and goals.

Company's objectives

- To ensure stakeholder awareness of the company operations duly and transparently and to embark upon strategic diversification
- To enhance distribution services in line with regulatory benchmarking and internal service standards
- To enhance the technological capability of the company through research, development and innovation
- To enhance business profitability, efficiency, internal process control and strategic investment while reducing waste
- To ensure productive, skilled, motivated and mutually respecting workforce through healthy working environment benchmarked by national and international norms.

2 PROGRESS OF THE DEVELOPMENT PROJECTS & ACTIVITIES IN 2021

The Company's achievement exhibits our performance and the commitment made towards the high quality of service to the stakeholders.

	2017	2018	2019	2020	2021 Budget	2021 ACTUAL YTD - JUNE
Consumers	551,123	562,412	568,250	580,184	612,056	582,134
Sales GWhMn	1518	1,570	1,646	1,624	1,740	727
Revenue Rs Mn	29,930	30,947	32,461	30,709	38,782	16,052
Distribution Losses (11 Kv) %	2.7	2.27	1.61	1.34%	3.99%	2.92%
Consumers /Employee Ratio	351	358	370	392	408	394
Reliability of performance measurement Indices(SAIDI) (Hrs/Consumer /year)	41.9	39.1	34.7	-		

Record of Distribution of Assets as at June 2021 is as follows

ASSET CATEGORY	UNITS OF MEAST.	OPENING BALANCE 2021	Actual Performance June 2021	Balance YTD - June 2021
11 kV UG	km	72.042	0.460	72.502
11 kV OH/DC	km	14.489	-	14.489
11 kV OH/SC	km	161.311	0.936	162.247
11 kV OH/SC+LV	km	846.938	0.232	847.170
DIST/SUB S 11 kV	NO	2,474	11	2,485
DIST/SUB S 11 KV CAPACITY	kVA	398,938	2,880	401,818
BULK/SUB S 11 kV	NO	1,982	26	2,008
BULK/SUB S 11 kV CAPACITY	kVA	561,503	6,600	568,103
SWITCHING ST.- LBS & Nu-Lec	NO	552	4	556
- LBC	NO	613	6	619
11 kV AUTO RECLOSERS	NO	23	-	23
11 kV SECTIONALISERS	NO	7	(3)	4
LV DIST SYST 1 PH/SC	km	41.107	(0.522)	40.585
LV DIST SYST 2 PH/SC	km	1.960	0.477	2.437
LV DIST SYST 3PH/SC	km	3,501.565	12.030	3,513.595
LV DIST SYST 3PH/DC	km	27.981	-	27.981
CONSUMER SERVICE LINES	NO	596,822	5,398	602,220
CEB PRIMARY/SUB S(serving LECO)	NO	36	-	36
CEB PRIMARY/SUB S CAPACITY	MVA	435	5	440
CEB PURCHASE METERING PT.S	NO	38	1	39

Projects and Progress

Operations

- Expansion and rehabilitation work in the distribution network based on the electricity demand of the customers and the requirement of enhancing supply reliability. This is a continuous process handled by each Branch.
- Enhancement of the supply efficiency to the continuous reduction of distribution losses
- Continues development in the reduction of fault attendance time and breakdown restoration time.
- Reduction of the processing time for customer requested services including new connections.

Developments

- The electricity grid owned to the company is planned to be converted to a smart grid. The smart grid platform for the integration of smart meters, network monitoring devices and the automatic switches is installed and commissioned.
- The installation of the smart devices such as smart meters, network monitoring devices and automatic switches are in progress.
- The company's internal operations are automated and moving towards paperless office concept. All customer services are open to the internet based applications. The e-billing system is introduced where a customer can obtain the bill by email and pay by the internet.
- Advanced Distribution Management system is introduced to automate the networks controls.
- Geographic Information System Platform is installed and all the network assets are acquired to this platform. All service vehicles are also acquired to the platform so that the complete operations are transparent to the management and if enabled to the customers.
- Execution of the Micro grid Project funded by Asian Development Bank under the Green Power Development and Energy Efficiency Improvement Investment Project is started and it is expected to complete it by end of the year 2021. Currently overall physical progress of 70% has been achieved in midst the effect of global pandemic.

- Nugegoda Pilot Underground Cabling Project was designed, constructed and commissioned which converted the Nugegoda Town Center overhead medium voltage network in to an underground network.
- Distribution System Reliability Strengthening Project for LECO supply reliability and source capacity enhancement has been initiated. It is anticipated to introduce 33kV as a distribution voltage of LECO and introduce direct 132/33 kV Grid Substations to source the LECO network to improve the reliability.
- Construction of proposed head office building complex at Narahenpita is in the process of awarding the contract, and the management is expected to commence the constructions during the last quarter of this year.
- Enabled 24hrs payment collection feature by introducing self-payment centers with kiosk machines that accept cash and cheques.
- Smart Meter Data Management Center to be established in end September 2021 to facilitate AMI and Smart Meter related products and services to enhance service quality.

3 FINANCIAL POSITION

Profit and Loss Statement for the period ended 30 June 2021 is as follows

Period ended	Budget 2021 Rs. '000	2021- Jun 30 (Draft) Rs. '000	2021 - Dec 31 (Actual + Forecast) Rs. '000	2020 - Dec 31 (Audited) Rs. '000
Revenue	38,780,814	16,052,467	32,104,935	30,709,215
Cost of Sales	(29,218,885)	(11,769,602)	(25,039,204)	(24,596,359)
Gross Profit	9,561,929	4,282,865	7,065,731	6,112,855
Other Operating Income	1,785,864	1,627,816	1,891,996	922,496
Operating Expenses	(2,943,532)	(1,221,368)	(2,685,035)	(2,575,292)
Administrative Expenses	(3,815,422)	(1,342,814)	(3,188,675)	(2,875,719)
Profit from operations	4,588,840	3,346,500	3,084,017	1,584,341
Finance Income	665,404	238,612	477,224	867,193
Finance Cost	(87,155)	(10,337)	(60,674)	(142,541)
Profit Before Taxation	5,167,089	3,574,776	3,500,567	2,308,993
Income Tax Expense	(1,446,785)	(1,000,937)	(980,159)	(626,655)
Profit for the Year	3,720,304	2,573,838	2,520,408	1,682,338

Financial Position as at 30 June 2021 is as follows

Rs.'000	June 2021	Dec. 2020
ASSETS		
Non-current assets		
Property, plant and equipment	13,788,611	13,675,416
Financial assets	10,838,875	10,838,875
Other Assets	2,056,120	2,152,456
Total non-current assets	26,683,606	26,666,747
Current assets		
Inventories	2,719,917	2,804,761
Trade and other receivables	11,548,692	8,262,660
Other financial assets	8,488,288	9,178,713
Cash and bank balances	923,600	431,801
Total current assets	23,680,497	20,677,935
Total Assets	50,364,103	47,344,683
EQUITY AND LIABILITIES		
Equity		
Stated capital	1,145,067	1,145,067
Reserves & Retained earnings	36,061,923	33,537,300
Total Equity	37,206,990	34,682,367
Non-current liabilities		
Interest bearing borrowings	94,393	94,393
Deferred Liabilities	6,089,978	5,995,803
Post employment benefit liabilities	1,487,149	1,478,148
	7,671,520	7,568,344
Current liabilities		
Trade and other payables	4,276,225	4,624,583
Other current liabilities	1,209,367	469,390
Total current liabilities	5,485,592	5,093,972
Total liabilities	13,157,113	12,662,316
Total Equity and Liabilities	50,364,103	47,344,683

4 CHALLENGES FACED & STRATEGIES ADOPTED IN ADDRESSING SUCH CHALLENGES

- Actual sales were declined compared to budgeted sales forecast due to the prevailing pandemic situation. However, company able to control the existing overhead expenditures.
- The company's trade debtor position has gradually increased during the pandemic period. Due to the prevailing pandemic situation, most of the business operations were interrupted and as a result of that, the government granted concessions to electricity customers. The escalation of the trade debt is due to LECO refrained from disconnecting consumers' electricity connections.
- Concessions were given to the customers from April 2020. Because of these reasons company's total trade receivable balance increased drastically compared to the last few years. LECO took steps to scrutinize existing outstanding values of individual customers and selected customers those who were affected from the current situation and arranged installment basis of settling the Bills, so that the businesses could settle the outstanding electricity bills without affecting them. The management will arrange to commence disconnection process for these customers; this will be a case by case disconnection process.
- Obtaining electricity meter readings and bill payment collections were seriously affected due to the pandemic situation.

5 PROGRAMES & PROJECTS FOR 2022

- Research and development works will be continued in the implementation of the smart grid solution in enhancing the efficiency and customer services.
- Business Process Reengineering process will be continued in achieving enhances internal efficiency.
- Process automation will continue in order to achieve the BPR goals through high controllability and transparency.
- Power System Reliability Strengthening Project will be commencing at the beginning of the next year. The project will be mainly financed by ADB. Expected cost will be around US$ 50Million and project will be completed by the year 2026.
- Head Office Construction project will continue so that the head office building will be ready for occupation by 2024.

LTL Holdings (PVT) Ltd.

Introduction:

Established in the year 1980, LTL Holdings (PVT) Ltd, currently having its registered office at 67 Park Street, Colombo 02, is in its corporate journey for over four decades, and had achieved many goals through its engineering excellence in Sri Lanka and Overseas and reached the summit in the field of Power Sector Industry thus becoming a renowned and leading Power Sector Engineering Company recognized in Sri Lanka and overseas. The business of the Company, as done hitherto, had been successfully diversified into various aspects, such as Power Generation, Electricity Infrastructure Development, manufacturing of Power Distribution Transformers and Hot Dip Galvanizing, catering to the various other needs of the Power Sector Industries in Sri Lanka and Overseas. Having backed by the vast experience and knowledge in the field of Power Sector Engineering works, equipped with qualified/experienced Engineering Professionals and Technical Staff, the Company courageously penetrated into International Power Sector Markets and successfully carried out EPC Contracts (Engineering, Procurement and Construction) in Overseas apart from activities carried out in Sri Lanka.

Presently, LTL Holdings is the largest independent power producer in Sri Lanka, supplying over 300MW of power to the national grid. LTL's fully automated Galvanizing Plant provides Hot Dipped Galvanizing for transmission towers and other industries and capable of producing an output of 6.2 metric tonne per hour to the highest international standards.

Lakdhanavi Limited, one of the subsidiaries of LHL Holdings (PVT) Ltd, is now awarded with a contract early this year for the construction of 350MW LNG/Diesel fired Power Plant to be added to the national grid of the CEB during early 2024, in not earlier, if the Epidemic situation in the country is back to normal.

The Senior Management Team and its team of well-trained, disciplined and dedicated employees are now inspired to take the next leap forward of the LTL Group with their tenacity, drive and energy coupled with the leveraging our resources, ceaseless innovation and application of advanced technology to better our corporate goals, locally and internationally.

The Company has been bestowed upon with various awards for engineering excellence over the years for its extra ordinary performance including the prestigious Gold Award for best independent producer (IPP) in the Asian Region, with others including:

- Winning Engineering Excellence Award in 2015 from the Institution of Engineers, Sri Lanka.
- Winning the Asian Power Awards 2016 for the excellent performance held in South Korea
- Lakdhanavi was publicly rated for its credit worthiness by Fitch Rating Agency and has been rated AA"(lka) which is only one notch below the AAA credit rating.

Dividend Payments:

LTL Holdings (PVT) Limited for the last four decades, since its operations in the year 1980, has made tremendous contribution to the cash flow of CEB, having made a cumulative dividend payment of over Rs.16 billion. The Company has also enhanced its growth and recorded a Group net asset worth over Rs.33 billion. The decision taken by the Company in 2001 to make the employees as its shareholders, by leveraging and the buyout of shares previously owned by the foreign investor in 2005 has further augmented the profitability of the company.

The tender floated by the CEB in 2016, for the Construction of 350MW LNG fired Power Plant Project for which Lakdhanavi Limited, a fully owned subsidiary & Power Plants Operations wing of the company participated. The bid submitted by Lakdhanavi has now been considered to be the lowest and the contract was awarded accordingly in 2021, and thus the following benefits would accrue for both the Government and the CEB respectively.

1. All procurement, except for machinery & equipment, will be within the resources available in the Country and thus the expatriation of funds could be reduced extensively.
2. Lakdhanavi will make use of its team of well trained & experienced engineers, skilled workers and other staff for the project implementation. This too will reduce the expatriation of funds from Sri Lanka.
3. Employment opportunities are made available to young passed out engineers to ease the unemployment problem in the country as done hitherto in the past.
4. The CEB would be benefitted with dividends earned by LTL Holdings (PVT) Ltd.

Overseas Assignments:

Although the company has been successful in securing overseas tenders for Hydro & Thermal Power Plant operations, the restrictions enforced by the Department of Exchange Control of Sri Lanka, have somewhat hindered the progress of the projects especially in Bangladesh and Nepal.

An Indian Switch Gear Manufacturing Company, Asiatic Electrical & Switchgear Company (PTE) Ltd acquired by the Company five (5) years ago, enhanced its performance under the wield of an experienced CEO, appointed by the Company. It was a great advantage for the Company to have acquired Asiatic Electrical & Switchgear as it now continues to meet the demand of the power sector development works of the company successfully.

Dividend Income from Foreign Subsidiaries:

The dividend income earned in the sum of USD. 4,489,258 from the foreign investments through the successful operation of the subsidiaries of the company relating to performance of 2020/21 financial year, are as tabulated below:

1. Lakdhanavi Bangla Power Ltd, Bangladesh .. USD. 897,190
2. Feni Lanka Power Ltd, Bangladesh .. USD 3,592,068

Total **USD.4,489,258**

LTL continued to diversify its business in many segments for proper management of each of these businesses to operate under dedicated separate subsidiaries in order to harness all potentials available for business opportunities within the country and overseas.

PROGRESS FOR 2021 AND PROGRAMMES FOR 2022

Performance of LTL Holdings Group of Companies during the Financial Year including Financial Highlights for January to August 2021

Tabulated below is a summary of the Financial Performance on major operations in comparison to the previous years are shown below: -

PERIOD	F/Year 2021 Jany/August	F/Year 2020 Jany/August	F/Year 2019 Jany/Augt
TURN OVER	**(Rs.Million)**	**(Rs.Million)**	**(Rs. Million)**
Manufacturing Misc. Services	6,994	6,397	5,947
Power Generation	11,213	6,861	6,439
Construction Services	-	-	294
TOTAL	**18,207**	**13,259**	**12,680**
GROSS PROFIT			
Manufacturing Misc. Services	3,290	3,134	2,679
Power Generation	3,056	3,119	1,835
Construction Services	-	-	76
TOTAL	**6,346**	**6,253**	**4,591**

The overall consolidated Turn Over and Gross Profit of the Company recorded for the period of 08 months under review (January to August 2021) has been improved by 37.31% and 01.49% respectively in comparison to the corresponding period last year.

A significant improvement in the turnover under "Power Generation" has been recorded with an increase of 63.43% over last year. However, profit earned shows a decrease of 02.02% during the corresponding period last year.

1.0 Operations and Maintenance of Power Plants

1.1 Yugadhanavi Power Plant at Kerawalapitiya

Installation	Yugadanavi Power Plant, Kerawalapitiya, Sri Lanka
Total Plant Capacity	300 MW
GT/ST Supplier	GE France/USA
Engine Model	GT – Frame 9E, ST SC5
Alternator Type	GE 9A5
Configuration	2:2:1
Machine Output	100 MW each
Number of Machines	2 GTs & 1 ST
PPA Period	25 Years start from May 2010

Annual Energy sale for the year 2021, from 01 January 2021 up to 31 Aug is 733.38 GWh and achieved availability 89.82 %. The annual availability target for the 12th contract year from 10 May 2021 to 09 May 2022, has been declared as 68%.

A subsidiary of LTL, the Lakdhanavi being the Operation & Maintenance contractor of the Yugadanavi 300MW Combined Cycle Power Plant has made a historic achievement by running this plant for last 13 years with Heavy Fuel Oil (HFO) by overcoming huge reproach during construction phase. Becoming a paradigmatic plant running in HFO, Yugadanavi became a showcase for all main Original Equipment Manufacturers in the power industry of the world.

1.2. Raj Lanka Power Plant,Natore, Bangladesh

Installation	Raj Lanka Power Plant, Natore , Bangladesh
Total Plant Capacity	52.2 MW
Engine Supplier	Wartsila Finland
Engine Model	W20V32
Machine Output	8.9 MW
Number of Machines	6
PPA Period	15 Years starts from, January,2014

Annual Energy sale for the year 2021 up to 31 August is 147.407 GWh and achieved availability 93.31%. The annual availability target for the year 2021 has been based at above 95.00 %. This is the first Sri Lanka owned Thermal Power Plant outside Sri Lanka.

1.3 Lakdhanavi Bangla Power Plant, Comilla, Bangladesh

Installation	Lakdhanavi Bangla Power Plant, Comilla, Bangladesh
Total Plant Capacity	52.2 MW
Engine Supplier	Wartsila Finland
Engine Model	W20V32
Machine Output	8.9 MW
Number of Machines	6
PPA Period	15 Years starts from December,2014

Annual Energy sale for the year 2021 up to 31 August is 119.18 GWh and achieved availability 90.55 %. The annual availability target for the year 2021 has been based at above 92.00%.

1.4 Feni Lanka Power Plant, Feni, Bangladesh

Installation	Feni Lanka Power Plant, Feni, Bangladesh
Total Plant Capacity	114 MW
Engine Supplier	Wartsila Finland
Engine Model	Six 18V50 and one W20V32
Machine Output	18.415*6 + 9.78*1 MW
Number of Machines	7
PPA Period	15 Years starts from November, 2019

Annual Energy sale for the year 2021 up to 31 August is 173.74050 GWh and achieved availability 91.51 %. The annual availability target for the year 2021 has been based at above 92%.

1.5 Pawandhanavi Wind Power Plant, Norochcholai

Installation	Pawandhanavi Wind Power Plant, Ilanthadiya,Norochchole
Total Plant Capacity	9.8 MW
Turbine Supplier	Gamesa
Turbine Model	G58
Turbine Output	850kW
Number of Turbines	12
PPA Period	20 Years starts from September,2012

Annual Energy sale for the year 2021 up to 31 August is 6.10 GWh and achieved Plant Factor is 10.4%. The annual availability target for the year 2021 has been based at 98.68%. This operation was severely hampered due to the malfunctioning of CEB's wind collector substation's main transformer in July 2020 which took nearly a year to be rectified.

2.0 Mini Hydro Power Generation

2.1 Belihul Oya – Nividhu Mini hydro Power Plant

Installation	Nividhu Mini Hydro Plant, Belihul Oya
Total Plant Capacity	2.2 MW
Turbine Supplier	Wasserkraft Volk AG, Germany
Turbine Type	Horizontal Turbo Impulse
Turbine Output	1.1 MW
Number of Turbines	2
PPA Period	20 Years starts from May,2003

Annual Energy sale for the year 2021 up to 31 August is 6.1 GWh and achieved Plant Factor is 45%. The annual availability target for the year 2021 has been based at 100%.

2.2 Assupini Ella Mini hydro Power Plant, Aranayake

Installation	Assupiniella Mini Hydro Plant, Aranayake
Total Plant Capacity	4 MW
Turbine Supplier	VA Tech Hydro
Turbine Type	Horizontal Pelton
Turbine Output	2 MW
Number of Turbines	2
PPA Period	20 Years starts from November,2005

Annual Energy sale for the year 2021 up to 31 August is 8.00 GWh and achieved Plant Factor is 35%. The annual availability target for the year 2021 has been based at 95%

2.3 - 10MW Makarigad Hydro Power (PVT) Ltd, Nepal

The above Project is being carried out by LTL Energy (PVT) Ltd, which is a fully owned subsidiary of LTL Holdings (PVT) Ltd. LTL Energy (PVT) has acquired 55% of the stakehold of Makarigad Hydro Power PVT Ltd,

Location	Water Source, Makari Gad, a tributary of the Chemeliya Riverin Khandeswari and Gujar Village of Darchula District in Far Eastern Nepal
Total Plant Capacity	10 MW
Energy – Saleable - Contracted	74.1 MU 69.8 MU
PPA	Signed
Turbine Supplier	WkV-Germany
Turbine Type	Horizontal 2 Jet Pelton
Hydrology	Rain & snow fed perennial stream

Almost 60% of the project work has now been completed, and the balance works would be concluded in May 2022. The commercial operation is anticipated to start with effect from mid July 2022, after having performed the testing and commissioning in May/June 2022.

3.0 Manufacturing and Marketing of Transformers

3.1 Main Machinery, Equipment and Facility at Angulana Transformer Plant

HV Winding Machine -WHCF- TUBOLY - 3 Nos. Automatic Winding Machines.

These automatic winding machines controlled by an Industrial PC, increase the production capacity and immensely help in timely execution of large contracts while ensuring economical usage of raw material

George Core Cutting Machine – 1 No.

This is a high speed and automatic core cutting line that saves valuable time. This can precisely cut step lap stacked transformer cores, which result in transformers with lower No-load losses, No - load Current and low Noise level.

HV Winding Machine CNC-2 Nos./Horizontal Winding Machines -2 Nos.

These machines are capable of doing winding up to 5 MVA and come out with accurate and proper windings of better quality.

Oil Filter Machine (Vokes SL 20) - 01 Unit

The machine helps to ensure the proven quality of our outdoor services and repairs by enhancing the dielectric properties of insulating oil on site.

MG Set for Testing Department- 1 Set

This MG set upgraded the Testing Department with the capability of testing transformers up to 5 MVA capacity. This help to increase the quantitative and qualitative aspects of the testing process.

Stores Building

The Stores Building is a properly planned space for storage and handling of materials, to facilitate the yearly increasing production quantities. With the newly installed racking system and the ERP system stores operation become efficient and accurate.

Rooftop solar system

This is a major step towards the green production concept.

3.2 The production recorded for the year under review (2020/2021) are as follows:

		2020/21	2019/20
a)	No. of Transformers supplied to CEB/LECO	1,999	2,131 Nos.
b)	No. of Transformers supplied Other Local customers	146	80 Nos.
c)	No. of Transformers exported to other countries	124	143 Nos.
Total Production		**2,269**	**2,354 Nos.**

Export Project Completed in 2020/2021

Country of Export	Utility Department	No. of Transformers	Total Value in USD
Ethiopia	Ethiopian Electric Power	40	
Mozambique	Electricidade de Moçambique (EDM)	84	
TOTAL		**124**	0.5 M

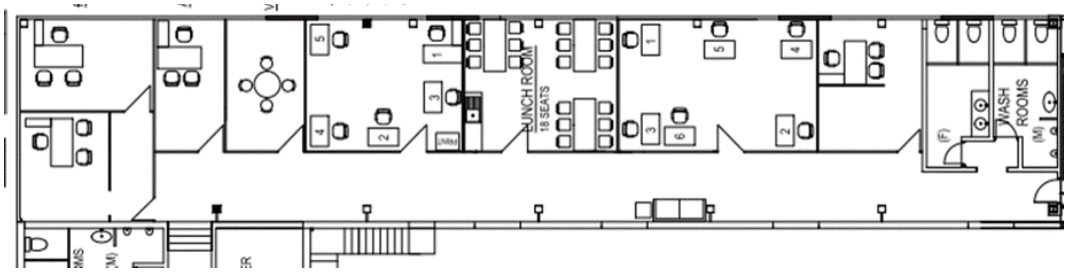
Export orders in hand for 2021/2022

Country of Export	Utility Department	No. of Transformers	Total Value in USD
Mozambique	Electricidade de Moçambique (EDM)	1,234	**2.8 M**

The production of transformers for January to August 2021 recorded a deficit of 85 Nos. of Transformers mainly due to periodical lockdown in the country owing to the outbreak of Covid 19 Pandemic, which has also shattered the export market to a considerable extent.

3.3 Some special projects completed and Achievements: in 2021

a. Upgrading of new office and reception area



The construction work of new office area is completed within the year, which provided more spacious environment for staff and customers. This renovation consists of well facilitated meeting rooms, entertainment room, reception room, rest room, lobby etc. The focus has been given to facilitate the customers via this project. An attractive reception area with comfortable seating arrangements, lobby, discussion rooms, rest rooms, separate lunchrooms and washrooms for customers, have been introduced to the factory.

b. Introduction of energy efficient transformers that meet EU Eco Design Tier 2 requirements.

LTLT has successfully designed and manufactured high energy efficient transformers with extremely lower operational losses, complying to EU Eco Design Tier 2 requirements. By the end of the financial year, the complete product range of LTLT supplied to local private sector has been upgraded to these energy efficient designs. Local customers will be benefited with lower total owning costs (TOC), while contributing to lower emissions.

c. Brand Strategy Development project

An initiative was taken to develop a comprehensive brand strategy for LTLT, which is a need of the hour amid increasing competition in the markets. The project started with market research to audit the brands' current position and analyze the competitors. Based on the results of the market research, the project continued to next steps of identification of positioning of the brand, developing the messaging strategy aligning with the target market and overall business strategy, developing brand communication strategy and developing communication collateral. This project will provide a basis for LTLTs' future marketing and branding arrangements

2.4 Improvements Programmed for 2021/2022

1. Low Frequency Heating (LFH) oven

Low Frequency Heating (LFH) technology (Hedrich Germany) is about to be introduced to LTLT's production process. Commissioning of the new oven with LFH technology was delayed amid pandemic situation but it will be completed soon within the coming year. With this introduction, LTLT will become the first manufacturer in the region to equip the factory with this technology. This LFH system is equipped with automatic Oil filling and pressure testing facility which increases the efficiency and accuracy of the process drastically.

LFH process heats the transformer HV and LV windings uniformly from the inside by applying a low frequency current at low voltage levels through the HV winding while the LV windings remain short circuited. The Vacuum level of the chamber is precisely controlled throughout the process while monitoring the winding resistance through which the temperature of the winding is estimated.

2. Installing New sophisticated testing facility.

A new automatic state of the art testing equipment from Phoenix USA has been received at factory. Once this new unit is commissioned, the complete routine testing process will be automated enhancing the efficiency of testing process.

3. Design and Manufacture of Transformers with Amorphous Core

LTLT is about to start manufacturing transformer incorporating amorphous core technology. With this new technology LTLT will be able to lower the no load losses of transformers by 50% resulting in extremely energy efficient transformers. It will ultimate help Sri Lankan customers across a wide range of sectors to lower the operating costs and emissions. With the lower total owning cost customers will be benefited with returns over the lifetime of transformers.

4, 5MVA Power Transformer with On-Load Tap changes

LTLT is currently underway to manufacture the first 5 MVA transformer with an On-Load Tap Changer. The design work has already been completed and the project is expected to be finished within the 2021/22 financial year. The manufactured transformer will be tested for all type tests in an international accredited testing laboratory.

5. Starting Dry Type Transformer Production

Current Dry Type Transformer assembly line will be improved to full-fledged production line with the intension of catering the exponentially increasing demand for Dry Type Transformers in Sri Lanka. This will contribute not only to grasp the advantage of this new market trend but also to avoid the potential loss of opportunities due to customers moving away from Oil Type Transformers. In addition, this will enable us to fulfill any customer requirement for transformers. We have signed a contract with consultant to give technical support for this aspect and planning has been done to incorporate dry transformer design capabilities in existing design program with the help of Ex-ABB experts from Norway and USA.

6. Challenges and Main Issues for 2021

Solar Power development in Sri Lanka has been gaining momentum since last few years.Grid scale solar PV projects, small scale distributed solar PV projects and roof top installations are achieving significant growth during the period.As per Sustainable Energy Authority, it is expected to add more than 1000 MW of solar energy to countries network by year 2020, via these interventions. Since transformers are a mandatory item for most of these projects, an increased demand for transformers in the local market can be observed.

In order to facilitate local solar energy developers and country'seconomic direction, LTLT designed, manufactured and introduced special transformers in year 2019, which well suit for stringent conditions in solar PV applications. In addition to unique internal design features, these transformers are highly efficient with extremely low no load losses. This is extremely beneficial to the solar PV developers who can save a huge amount through energy savings.

However, LTLT had to undergo lot of adversities recently due to the structure of VAT applicability for transformers in Sri Lanka. Local solar developers had to pay VAT when they purchase transformers from LTLT locally , whereas the transformers are exempted from import VAT as per current regulations(LTLT's product range is covered by HS codes 8504.21.90 and 8504.22.20). This 8% disadvantage in VAT is threatening to cause damage to LTLT as a domestic manufacturer. As a consequence, many numbers of transformers were imported to Sri Lanka recently for Solar PV projects and the trend is expected to increase in future. The exemption of VAT on imported transformers has become a catalyst for local developers to import transformers instead of purchasing locally by paying 8% extra.

The VAT Act includes provision for VAT exemptions for locally manufactured transformers for hydro and wind power projects. In terms of Item (XXXVi) of the Paragraph(b) of Part II of the First Schedule to the VAT Act, No 14 of 2002, as amended by VAT(Amendment) Act , No.07 of 20212, supply of locally manufactured value added products are exempted from VAT, including Hydro power and Wind power machinery and equipment as specified in sub item(i) of the list. **But this exemption is not yet been extended for the transformers used in solar power projects.**

If this inconsistency in VAT applicability can be sorted out suitably with immediate effect,it will be possible to save millions of USD that will flow out of the country for importation of transformers in coming few years. It will also be a safeguard measure for providing protection for LTLT as a domestic manufacturer.

Considering the circumstances, it is salient to take necessary actions **to exempt locally manufactured transformers for solar PV projects from VAT**, and also to consider the possibility to impose VAT on imported transformers to the country, as a safeguard measure for domestic industry.

4.0 Galvanizing & Fabrication Plants at Sapugaskande

Sapugaskande Galvanizing Facility

4.1 Production Breakdown – Galvanizing & Fabrication Plant (2021)

Monthly Production – Galvanizing Plant (January to August 2021)

Year	Month	B1	B2	Total Production
		Total Kgs	**Total Kgs**	(Kgs)
2021	January	829,799	164,118	**993,917**
	February	866,683	140,328	**1,007,011**
	March	929,121	256,166	**1,185,287**
	April	802,862	84,940	**887,802**
	May	744,813	116,335	**861,148**
	June	1,162,486	163,340	**1,325,826**
	July	881,314	179,458	**1,060,772**
	August (Estd)	850,000	90,000	**940,000**
Total		**7,067,078**	**1,194,685**	**8,261,763**

4.2 Production Analysis – (Galvanizing Plant)

Production Analysis – Galvanizing Plant (January to July 2021)

Description		Turnover (LKR) & Production (Kgs)	
		2021	
		Turnover	**Production**
Total		**705,244,197**	**8,261,763**
CEB		57,012,901	992,329
Inter company	2nd party	14,817,993	234,101
	F&G	70,876,673	2,144,986
	Substation Packages	33,384,300	87,504
	Factory works		56,423
Scrap Sales		54,478,239	
3rd Party		474,674,090	4,746,420

Fully Automated CNC
Angle punching Machine

Although the CEB has been our prime customer over the last one decade, the business with CEB has been dwindled considerably due to lack of New Power Sector projects consequent upon achieving almost 98% of electrification in the Country. However, production levels have been increased successfully by securing business with new customers despite the unfavourable market conditions due to the outbreak of Covid 19 Pandemic since last year

Fully Automated CNC
Plate shearing Machine

The Galvanizing Facility of the Company has made a steady progress in overall production levels during the year under review. The production process is wholly computer controlled. The equipment includes automatic CNC line for angle steel, CNC plate cutting machine, CNC Profile cutter, semi-automated channel shearing machine, CNC Plate punching and drilling machine etc. The company has been optimizing the production resources according to the Management systems, to ensure the efficient operations, timely completion of production tasks as well as superior quality.

5.0 Production Analysis – Fabrication Plant

5.1 Monthly Production – Fabrication Plant (January to August 2021)

The Fabrication Plant, which operates in unison with the Galvanizing Plant, too has earned considerable revenue during the year under review, in comparison to the previous year, despite various obstacles and setbacks since December 2019, consequent upon the outbreak of Covid 19 Pandemic in the country.

Year	Month	CEB Projects	Inter Com. Overseas projects	Inter Com. Local projects	Private Organization	Total Production (Kgs)
2018	January	25,040	0	378,310	0	**403,350**
	February	0	0	196,620	0	**196,620**
	March	27,610	0	352,040	0	**379,650**
	April	23,830	0	211,110	0	**234,940**
	May	0	0	347,950	0	**347,950**
	June	36,990	0	364,100	0	**401,090**
	July	7,350	0	370,730	3,400	**381,480**
	August	0	0	0	0	**0**
Total		**120,820**	**0**	**2,220,860**	**3,400**	**2,345,080**

5.2 Production Analysis – Fabrication Pant

Description		Turnover (LKR) & Production (Kgs)	
		2021	
		Turnover	**Production**
CEB Projects		26,726,543	120,820
Inter Company	Local Projects	246,984,761	2,220,860
	Overseas Projects	0	0
3rd Party		5,214,786.29	3,400
TOTAL		**278,926,091**	**2,345,080**

The Fabrication Plant, which operates in unison with the Galvanizing Plant, too has earned considerable revenue during the year under review, in comparison to the previous year, despite various obstacles and setbacks since December 2019, consequent upon the outbreak of Covid 19 Pandemic in the country.

5.3 Ongoing projects in hand to be completed during January to August 2021

Ref.	Project Name	Weight (kg)	Project Status
1	GPDEEIIP2 Package 4 - 33kv Lines and Gantries	840,346.83	On going
2	NTIND&EIP Package 1	1,098,313.53	On going
3	NTDNDEIP Package 2	410,769.04	On going

6.0 Asiatic Electrical & Switchgear (PVT) Ltd, India

Asiatic Electrical & Switchgear PVT Ltd, a subsidiary of the Company has made steady progress during the last three years and the earned a dividend income of USD 471,728.00. The Company has moved the manufacturing facility to its leasehold property (for 99 years) at Biwadhi, in the State of Rajasthan, around 60 Kms away from New Delhi.

7.0 Challenges Encountered & Strategies Adopted for Future Improvement of the Company

7.1 Restructuring of the Ownership of LTL Holdings (PVT) Ltd

The proposal for the Restructuring of the Ownership of LTL Holdings (PVT) Ltd was subject to the indepth study of the Cabinet Committee on Economic Management (CCEM) and they had directed to a dilution of CEB shares below 50% by issuing new shares to LTL ESOT Ltd and CEB employees with the objective of giving LTL Holdings (PVT) Ltd a better operational flexibility and in order to maximize the profitability. Messsrs F J De Saram's, an independent legal firm, prepared a report on the required changes to be effected to the Articles of Association of LTLH,

Although 05 years had since been elapsed, since the Cabinet Decision made in September 2016, the decision with regard to the finalization of the Restructuring of the Ownership of LTL Holdings (PVT) Ltd is yet awaited.

Therefore, it has now become absolutely essential and importance, at this crucial juncture for the CEB and Ministry of Power in concurrence with the Ministry of Finance to take necessary steps to approve the recommendations as expeditiously as possible to effect the ownership structure of LTLH, in the best interest of the Company in particular and also the CEB in general to enhance its overseas business activities

8.0 Performance under Social Responsibilities

As done hitherto in past LTL Holdings (PVT) Ltd has, extended its goodwill by shouldering the voluntary services towards the Social Responsibility and carried out the following works during the period under review.

Asgiriya Historical Buddhist Temple in Kandy




Ruwanwalisaya Historical Buddhist Temple



Wattarama Historical Buddhist Temple in Kegalle


Lanka Coal Company (PVT) Ltd.

INTRODUCTION

Lanka Coal Company (Pvt.) Ltd (LCC), is a fully government owned business undertaking. The Company was incorporated solely for the purpose of import and supply of coal to the Lakvijaya Power Plant (LVPP) at Norochcholai, Which operates under Ceylon Electricity Board (CEB). Our Shareholders consist of following;

- Ceylon Electricity - 60%
- Treasury Department - 20%
- Ceylon Shipping Corporation - 10%
- Sri Lanka Ports Authority - 10%

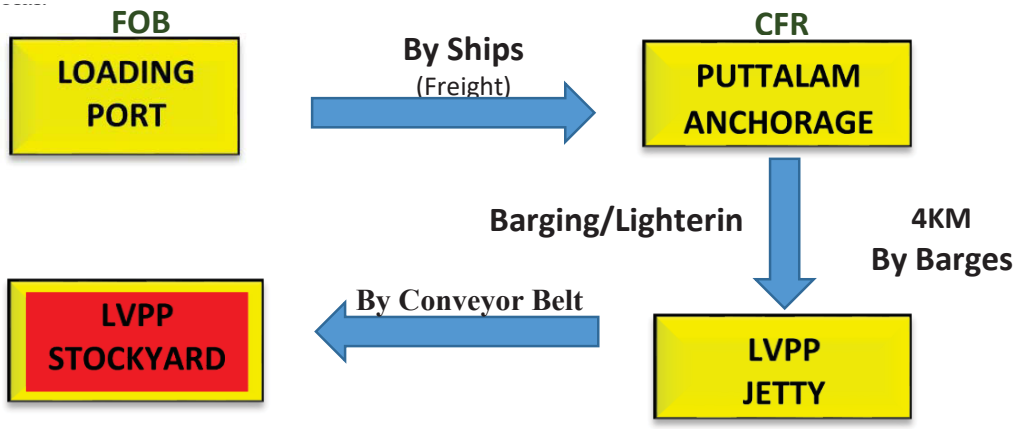
LCC procuring 2.25 million tons of coal for the Norochcholai power plant for 2021/2022 season as an annual requirement of CEB Due to the southwest monsoon season on the west coast, coal supply is limited to seven months from the month of September to month of April next year. But the power plant must be operational throughout the year and therefore storage of coal is essential to ensure a continuous supply of coal to the national grid.

Therefore, the procurement and operation of the coal supply has always been spread over a period of 2 years and the procurement process has been planned and the action plan has been prepared accordingly.

The LVPP notifies the LCC of their seasonal coal requirement in June each year after considering the shutdown of the plant due to any repairs (overhaul). Accordingly, the LCC will prepare a procurement schedule for the next coal season.

Coal Season 2021-22 Procurement Progress

The following chart will shows the process of Coal Procurement to Lakvijaya Power plant, Norochcholai.



FOB = Free On Board – Coal Cost at Loading Port
CFR = Cost and Freight – Coal Cost and Freight Up to the Puttalam Anchorage

LCC procuring 2.36±10% million MT of coal for the season 2021-2022 upon CEB requirement. The period of supply limited to seven months from September to April of the following year due the South West Monsoon. However, the power plant have to operate throughout the year, therefore, storage of coal is essential to ensure a continuous supply of coal to the national grid.

Initial coal has procured only through Term Tenders and as per the decision taken by the **Cabinet of Ministers on 23/07/2015** and **14/10/2015**, it was approved to process the coal tenders under two methods, i.e. Long Term and Short Term (Spot). Accordingly, the LCC calls for term tenders to supply one year quantity of coal in twoseasons. Spot Tenders will be called for each seasons after receiving the coal quantity demanded by CEB for each season. The supply will be met by approximately 50% from Term Tenders and 50% from spot tenders.

The CSC handles the transportation of coal from the loading port to the discharge port / Puttalam by matching the freight rates provided by the selected coal supplier.

Since, the procurement and operation of the coal supply has always been spread cross over a period of 2 years, the procurement process and the action plan has been prepared accordingly.

Lanka Coal Company acts as a procurement agency for the Coal Procurement Processand receives all recommendations and approvals time to time from the Procurement Committees SCAPC / SSCAPC and TEC. Both TEC SCAPC / SSCAPC are appointed by the Ministry of Finance and Lanka Coal Company (LCC) act as Procurement Entity by regulating the tenders, inviting bids from the registered suppliers after obtaining the relevant approvals from SCAPC / SSCAPC.

High-Lights of the Season 2021-2022

a) Exploring the possibility of long term coal supply to the Lanka Coal Company through diplomatic involvement.

The officers who are representing Lanka Coal Company (LCC), Ministry of Power and Ceylon Electricity Board (CEB), are trying to find a suitable coal supply partner to consider for a long term contract as a diplomatic level solution with Sri Lanka government. LCC has forwarded a requesting letter to Ministry of Foreign affairs through the line Ministry of Power to inform the Sri Lankan foreign missions. The main purpose is to identify a suitable coal supplier or coal miner with recommendation through the Sri Lankan foreign mission. The main purpose of this is to ensure uninterrupted coal supply with a better price. Finally, the benefit is to the nation with low cost electricity with continues electricity supply.

As a result of the effort taken by the officers, LCC has received four Proposals from different countries such as South Africa, Poland, Brazil and Russia. To stream line this operation a special committee has appointed with combination of higher level officers who are representing LCC, CEB and Ministry of Power to evaluate the proposals and for further study.

b) Finalization of Scheme of Recruitment Procedure (SORP)

A proper SORP in LCC has not been completed from the inceptions. Therefore, as per a decision of the LCC Board of Directors, a committee comprising of CEB (2),Ministry of Power (1), and Ceylon Shipping Corporation (1) and LCC (1) were appointed. Accordingly, the SORP proposed by the Committee was approved by the LCC Board with the PED direction..

PROGRAM FOR 2021-2022

Coal Procurement

Based on the LVPP letter received on 15th June 2021, coal requirement has been scheduled as 2.36 million ±10% MT for the Norochcholai power plant for 2021/2022 season. Accordingly, LCC has made the following tentative procurement plan to supply the above required quantity.

Description	Tender	No of Shipments	Quantity MT - 10%
Season 2021-22 - quantity of coal required by LVPP		40	2,360,000
Description of Spot Tenders			
Spot 01 - LCC/21-22/ST/24/1 **(Supplied)**	ST - 1	5	325,000
Spot 02 - LCC/21-22/ST/25/2 **(Tender Awarded)**	ST - 2	5	325,000
Spot 03 - LCC/21-22/ST/26/3 **-No Bids were received**	ST - 3	0	
Spot 04 - LCC/21-22/ST/27/4 **-No Bids were received**	ST - 4	0	
Spot -05 - LCC/21-22/ST/28/5 **(To be Called)**	ST - 5	8	520,000
Description of Term Tender			
Term Tender - LCC/21/TT/1 (50% ±10%) **(Tender Awarded)**	TT	20	1,200,000

Term Tender - LCC/21/TT/1

The Cabinet of Ministry has approved to award the Term Tender LCC/21/TT/1 to supplier **M/s. Swiss \ Singapore Overseas Enterprises (Pte) Ltd.** based on the Cabinet Paper submitted by the Ministry of Power. The Letter of Award issued on CFR basis since Ceylon Shipping Corporation unable to match the given fright rate of USD17.01. However, according to the clause 2.7.1.3 of the Bid Document CSC has given opportunity to deploy their vessels. Accordingly, CSC has proposed by the four laycans to provide their owned ships to four shipments of the season 2021-2022 and also the number of shipments for the season 2022-2023 will be informed at the starting of the season.

Spot Tenders

Spot 1

The supplier is **M/s. Swiss Singapore Overseas Enterprises (Pte) Ltd** for the first spot tender on CFR basis for USD 159.03 per MT. Which has contracted to supply 325,000 -10% MT by five shipments.

Spot 2

The second Spot Tender has been awarded **Ms. Adani Global (Pte) Ltd** on FOB basis of USD 138.21 per MT and CSC has matched the fright rate of USD 33.01 per MT. Which has contracted to supply 325,000 - 10% MT by five shipments.

Spot 3 & 4

There were no bidders participated for the Spot 3 and 4 due to the scarcity of coal supply by the miners and the issue arise on the Letter of Credit confirmation and foreign currency issues. However, to overcome this situation and to meet the CEB coal requirement, LCC rescheduled the coal supply plan to call fifth spot tender for 08 shipments.

Lightering / Barge Operation

Ceylon Shipping Corporation has selected **Ms. Shreeji India** as the lightering partner for two years. There are seven barges are planned to deploy for unloading operation at the Anchorage at Puttalam port.

Marine Insurance for Coal Transportation

The insurance coverage for the cargo selected by local calling from the companies who are listed under the Insurance Regulatory Commission of Sri Lanka (IRCSL).

Peoples Insurance PLC was awarded the tender for two seasons 2021-2022 and 2022-2023.

Custom Clearance Service for the Importation of Coal

Custom Clearance agent has appointed through calling a tender through local companies and it is awarded to ARTF Cargo International.

Sri Lanka Energies (PVT) Ltd.

Introduction

Sri Lanka Energies (Pvt) Ltd is a company incorporated in 1st quarter 2011 and operates as a 100% owned subsidiary of Ceylon Electricity Board.

SLE is with a vision of **Development of Renewable Energy,** among the other objectives of **Associated Transmission Asset Development**, **Manpower Resource Provision** and **Procurement**.

Progress 2021 and Programs for 2022

a. Kumbalgamuwa Mini Hydro Power Plant

Using the leakage water more than 20 years from Samanalawewa Reservoir Sri Lanka Energies (Pvt) Ltd has constructed **Kumbalgamuwa Mini Hydro Power Plant.**

The Commissioning of 1.2MW Francis Turbine in Kumbalgamuwa Mini Hydro Power Plant was completed on 2016 February 19 and connected to the national grid.

Turbine and Generator

Plant Summary (upto Sep 2021)		
Installed Capacity	1.3	MW
Cumulative Energy Generated	33.12	GWH
Cum Income	583.47	mn LKR
Capital Investment by CEB	115	mn LKR
Period of operation	5.6 (5Y & 7M)	Yrs

During the construction

b. Managing the Manpower Required by CEB

The Company provides the services of 156 skill and unskilled human services to CEB as requested by the mother company.

At the beginning the company handled nearly 3000 number of manpower services to CEB.

c. Meter Enclosure Manufacturing Plant.

The construction of the Plastic Single Phase Meter enclosure Manufacturing factory was started on 05th of September 2016 in order to fulfill the requirement of Plastic Meter Enclosures of Ceylon Electricity Board and Lanka Electricity Company (Pvt) Ltd.

Factory Front view

Completing the construction and machine installation, the factory was declared opened on 05th of September 2017. An annual requirement of 250,000 meter enclosures will be manufactured and supplied to the Ceylon Electricity Board and Lanka Electricity Company (Pvt) Ltd by this factory.

The factory is running its capacity to fulfill the entire Meter Enclosure requirement of CEB and LECO by now.

Assembly Line

a. Development of Daduruoya Mini Hydro Power Plant

Successfully commissioned the 1.3MW power plant at the irrigation release of Daduruoya reservoir at Katuwannawa Area. The Generator with Kaplan Turbine is expected to deliver an annual energy, worth Rs. 80mn LKR.

Kaplan Turbine

Power House

b. Upper Samanalawewa Mini Hydro Power Plant

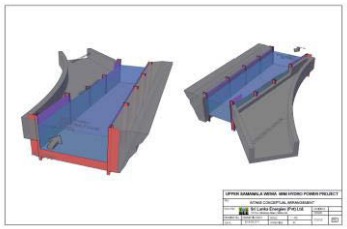
According to the study done by SLE there is a water head from the point of leakage to the existing Kumbalgamuwa weir at 28m height. a 600kw plant with 4.8GWh annual energy plant can be constructed from this water head.

This energy is wasted for more than 21 years without utilizing any productive use.

SLE did a detailed feasibility study in constructing a power plant as stated above without doing any disturbance to the existing leakage point or the surrounding area with Civil Engineering experts.

Proposed Intake Position for Power Plant

Project Summary		
Plant Capacity	700	kW
Expected Energy per Year	4.8	GWH
Exp Annual Income	86	mn LKR
Annual Income in terms of Emergency Power (Rs 35 /KWh)	171.84	mn LKR
Estimated project Cost	227	mn LKR



Proposed Intake Structure

c. Scrap Aluminium Recycling Project

The All Aluminium scrap Conductors (AAC) removed from CEB are going to be recycled in this factory in order to manufacture Aluminium Rods which can be later used for manufacturing of Aerial Bundle Cables (ABC). The processed Aluminium Rods will be sent back to CEB at a negotiated price.

In the present context this recycling project offers a very high value to the environment and saves more than 4mn US $ annually. Also as per the calculations done the output of this project serves one third of the annual Aluminum requirement of Ceylon Electricity Board.

At present collection of Scrap Aluminium from CEB depot has been started and stored temporarily at Galigamuwa Factory premises. The proposed manufacturing plant is under planning and proposed to develop it on land at Galgamuwa.

It is expected to establish a Factory and start operations in mid 2022.