

Petition for Annual Performance Review for the year 2021-22

Volume - 1

Submission Text and Affidavit

Submitted to

**THE HON'BLE WEST BENGAL
ELECTRICITY REGULATORY COMMISSION**

by



**CESC HOUSE
CHOWRINGHEE SQUARE
KOLKATA 700 001**

APR 2021-22

**BEFORE THE HON'BLE WEST BENGAL ELECTRICITY
REGULATORY COMMISSION, KOLKATA**

FILE NO.

CASE NO.

IN THE MATTER OF:

Application for Annual Performance Review for the year 2021 - 22 in terms of the Regulations of the Hon'ble West Bengal Electricity Regulatory Commission.

AND

IN THE MATTER OF:

CESC Limited
CESC House
Chowringhee Square,
Kolkata 700 001

.....Petitioner




**COMPANY SECRETARY
CESC LIMITED**

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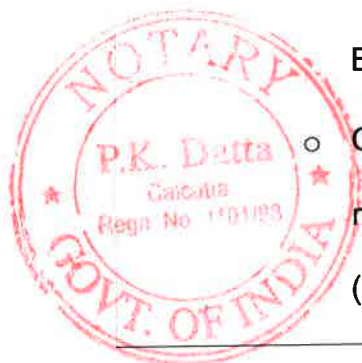


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○ Budge Budge Generating Station received Gold Award in Global Safety Awards 2022 for outstanding achievement in Practicing Excellence Workplace Culture in Health and Safety-Evolving Safe work Practices in Operations	
○ Budge Budge Generating Station received Gold Award for “Occupational Health & Safety” in 2021 at 11th Exceed Occupational Health Safety and Security	
○ Budge Budge Generating Station was recognised with Gold Award for “Business Transformation Initiatives” at 9th National Excellence Practice Competition in 2021	
○ Budge Budge Generating Station received “Aqua Foundation’s Excellence Award 2021” under the category of “Water Management Private Sector”	



- Budge Budge Generating Station was honoured with Gold Award – Power Generation at 3rd ICC National Occupational Health & Safety Awards 2021
- Southern Generating Station received Silver Certificate in Power Generation Sector at 3rd ICC National Occupational Health & Safety Awards 2021
- Budge Budge Generating Station adjudged as winner of Environment Excellence Awards 2021
- Southern Generating Station was adjudged Runner Up in Large Enterprise Category at Environment Excellence Awards 2021
- CESC adjudged winner in Push Alert: An In-house Vendor-Agnostic Solution for Real-time System Disturbance Analysis on Mobility Platform by IPPAI in 2022
- CESC adjudged winner for Best Distribution Company to promote Consumer Awareness by IPPAI in 2022
- CESC received Gold Award for conversion of unauthorized user of electricity to authorized consumer in Tiljala Topsia area at 9th CII National Excellence Practice Competition 2021
- CESC received Gold Award for Significant OPEX reduction for annual maintenance of Dist. Asset (Automatic Power Factor Control Units –APFC)

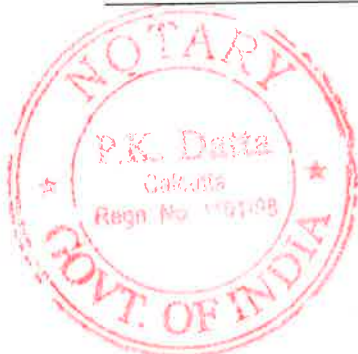


through business process innovation at 9th CII National Excellence Practice Competition 2021

- CESC received award on Total Quality Management at Global Summit 2021 organized by Techno India University and co-hosted by Quality Circle Forum of India
- Budge Budge Generating Station won the Energy & Environment Foundations Global Awards 2021 and was recognised as “Global Water Conservation Company of the year”
- CESC received awards on Quality Concepts (NCQC, ICQCC, QCFI) 2021 organized by Quality Circle Forum of India

◆ **Photographs**

- Initiatives addressing fake messages of power disconnection
- Consumer Service Initiatives
- Communications to consumers regarding safety measures during monsoon season and cyclone
- Approach towards curbing theft of electricity: Detection, Anti-theft Drives, Awareness Campaign



Application for Annual Performance Review
for the year 2021-22

In terms of the applicable Regulations specified by the
Hon'ble West Bengal Electricity Regulatory Commission

The humble petition of the Petitioner above-named

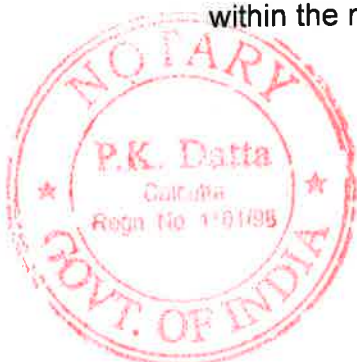
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1. Preamble

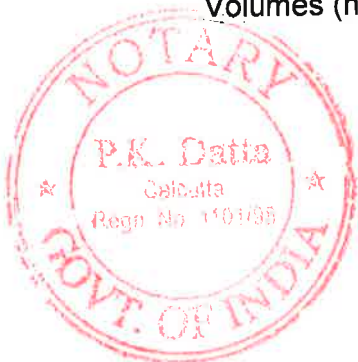
1.1. The Petitioner herein, CESC Limited (hereinafter referred to as "**CESC**" or the "**Company**") is a Company registered under the Companies Act, 1956 having its Registered Office at CESC House, Chowringhee Square, Kolkata – 700001.

1.2. CESC is a distribution licensee in terms of the first proviso to Section 14 of the Electricity Act, 2003. The Company is also a generating company within the meaning of Section 2 (28) of the Electricity Act, 2003.




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- 1.3. The Hon'ble West Bengal Electricity Regulatory Commission (hereinafter referred to as "**Hon'ble Commission**") determines the tariff of CESC in terms of the Electricity Act, 2003 and the Regulations prescribed thereunder by the Hon'ble Commission.
- 1.4. CESC Limited has submitted the Petition for determination of Annual Revenue Requirement ("**ARR**") and tariff for the years 2020-21, 2021-22 and 2022-23 under the seventh control period on 10 September 2020, in accordance with the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, including the amendments specified thereafter (hereinafter referred to as the "**Tariff Regulations**") and the Hon'ble Commission has issued the Multi Year Tariff Order (hereinafter referred to as "**MYT Order**") for 2020-21 and 2021-22 on 1 August 2022 in Case No. TP-96/ 20-21. Now, in compliance with the mandate of Regulation 2.6.1 read with Regulation 2.6.7 of the Tariff Regulations, CESC Limited is making the present application for Annual Performance Review (hereinafter referred to as "**APR**") of the concerned year with statutory audited data and a copy of the audited Annual Accounts for 2021-22.
- 1.5. CESC has submitted the Petition for approval of FPPCA for the year 2021-22 vide Communication No. MD(G):386 dated 29 September 2022, in 5 Volumes (hereinafter referred to as the "**FPPCA Petition**").



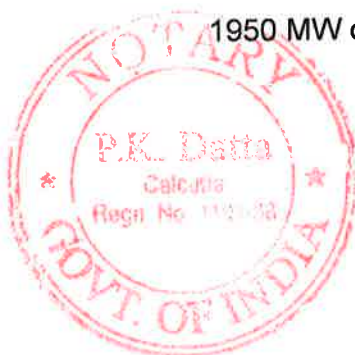
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1.6. During 2021-22, the year under consideration for the present APR Petition, the Company has recovered revenue in terms of and as directed in the tariff order of the Hon'ble Commission dated 4 July 2018 for the year 2017-18 in Case No. TP-72/16-17 read with the Tariff Regulations. Thereafter, Tariff Order for 2018-19 and 2019-20 in Case No. TP-77/18-19 was issued on 3 February 2022 and revenue has been recovered in terms of the abovementioned Order, as directed by the Hon'ble Commission in the said Order. The MYT Order for the year under consideration was issued after expiry of the said financial year.

2. Overview of CESC's Licensed Operations

2.1. CESC is in the business of electricity distribution for over 123 years. It is the first Company to commence public power supply in India, which started power distribution in India only 17 years after New York. CESC's licensed area presently extends over 567 sq. km, covering Kolkata, parts of North and South 24 Parganas, Howrah and Hooghly districts. A power map of the Company has been placed in "**Attachment 1**" (Page 123, Volume 1).

2.2. Presently, the Company serves more than 35 lakh consumers in its licensed area. Maximum demand of 2339 MW recorded in April 2022 is the highest demand ever met by CESC system. Peak demand surpassed 1950 MW on quite a few occasions in summer of 2021-22. The Company




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has, however, witnessed severe demand disruptions in the wake of the pandemic Covid-19 and lockdown induced by such pandemic, followed by lower usage of electricity, particularly in industrial and commercial establishments. Meeting the consumer demand has become a critical challenge under these circumstances and consumer demand, at times, tending to be unusual, as demonstrated in the recent past. Besides, consumers' expectations from the licensee are also changing with time. Hence, maintaining and improving the service quality has emerged as the paramount determinant of consumer satisfaction.

3. Factors affecting CESC's licensed business

3.1. Overview

3.1.1. Regulated licensees in India are statutorily required to provide critical services, often under hostile circumstances. They need to be able to finance their ongoing operations including essential repairs and maintenance. In case commensurate funds to finance the business activities are not available/ delayed, there is a negative impact both on the Company's finances as well as its ability to service its customers.

A handwritten signature in blue ink, appearing to be "Omprakash".

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3.2. Risks of Distribution Business

3.2.1. Being the link between the consumers and utilities, Distribution is the most critical segment of the electricity business. The National Electricity Policy observes, *"Distribution is the most critical segment of the electricity business chain"*. Experts agree that Distribution business is beset with problems of high and ever increasing consumer expectations necessitating huge investments to upgrade continuously, risks / challenges on combatting the menace of power theft, uncertainty of recovery of investment and regulatory risk.

3.2.2. Though the Electricity Act, 2003 brought about major reforms in the power sector, still commercial viability of the sector looks like a distant dream. This is also echoed by NITI Aayog in the Appraisal Document of Twelfth Five Year Plan 2012-17 *"The main issue affecting the power sector is the financial viability of the distribution companies, or discoms. The tariffs awarded by electricity regulatory commissions have not been sufficient to recover even the cost of supply. In fact, the gap between average revenue and average cost is widening over time."* Covid 19 pandemic even worsened the situation and According to a report published by NITI Aayog in August 2021, *"The pandemic accelerated the discoms' outstanding dues to ₹ 1.39 lakh crore as of October 2020, breaching the pre-UDAY peak of ₹ 1.3 lakh crore in 2015. Dues to generators increased 34.4 percent year-on-year to more than one trillion rupees as of October 2020."*



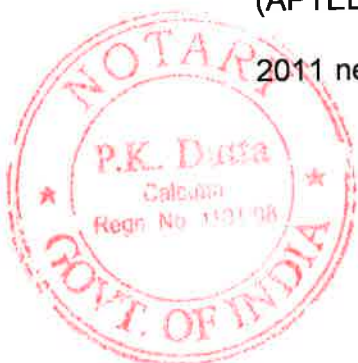
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A matrix showing comparative risk analysis supporting this contention is placed in “**Attachment 2**” (Page 124, Volume 1).

3.2.3. Accumulated loss and debt of electricity distribution sector, as reported time and again by the Government of India, highlight the plight of electricity distribution sector which constrains the ability of the licensees to invest in modernisation and technological upgradation, essential for controlling aggregate technical and commercial losses (AT&C losses) of the nation – the core problem with the Indian utilities.

3.2.4. According to a report sponsored by Niti Aayog on study of distribution sector in India published in April 2019, the major critical issues plaguing the distribution sector includes accumulated losses of discoms, absence of cost-reflective tariff leading to under-recovery of fixed costs, poor operational performance of discoms etc. Poor financial condition of distribution licensees is affecting financial condition of electricity generation sector and banking sector in turn. There is about Rs. 67917 crores of overdue payments of generating companies from distribution licensees as on March 2021, as per the Report published by NITI Aayog in August 2021.

3.2.5. It is worthwhile to mention that the Appellate Tribunal of Electricity (APTEL) has passed a suo-motu Order on 11 November 2011 in OP-1 of 2011 necessitating regular and timely issue of tariff and associated true-


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up Orders by the State Electricity Regulatory Commissions ensuring cost recovery of distribution licensees in adequate manner. Necessary information has been sought vide Order dated 23 September 2019 from the Forum of Regulators in this regard to ensure compliance of the above directions. As per July 2019 research report of CRISIL, post implementation of Ujwal Discom Assurance Yojana (UDAY), the desired improvement in performance of the distribution licensees has not been achieved primarily due to irregular / untimely revision in tariff.

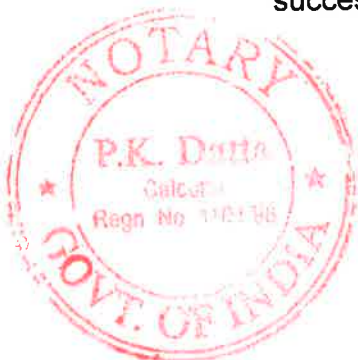
3.2.6. Reportedly, growth of electricity demand in the country was already experiencing a decline, which got further accentuated with the Covid-19 induced lockdown. As per International Energy Agency (IEA), the Indian energy sector will require an investment upwards of 3.6 trillion US dollars between 2015 and 2040. Funds will be allocated to the sector that minimizes risk for the given return. Hence, ensuring a time-bound recovery mechanism would make the power sector more attractive to the investors. Covid-19 has impacted the sales mix of Indian distribution licensees and due to insufficient recovery, the entire sector is in dire straits.

3.2.7. Another important aspect relating to the distribution business warrants mention. It is the statutory obligation of the distribution licensees to provide universal service. They must, at any cost, carry on supplying power to each existing consumer, a large proportion of whom belongs to




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very low consumption segment. In the year 2021-22, about 20.08 lakhs of consumers of CESC accounted for around 926 MU sales – a meagre average sale of around 38 units a month per consumer. About 58% of consumers are in this category and account for about 10% of the units sold. Yet all costs relating to capital expenditure, breakdown service, meter reading, billing and collection, network surveillance, overall administration etc. have to be incurred for meeting the universal service obligation cast on CESC. Moreover, the cost associated with serving these small consumers is relatively higher in most cases. In this context, it may be pertinent to note that the National Electricity Policy observes, “..... *meeting the target of providing universal access is a daunting task requiring significant addition to generation capacity and expansion of the transmission and distribution network.*” Unfortunately, all costs relating to providing service are on the rise, driven by sustained inflationary pressure. The Company has continued providing 24X7 power supply to all its consumers during the Covid-19 lockdown imposed by the Government of West Bengal (GoWB) in May 2021, due to the outbreak of 2nd wave of the pandemic and also during the period of 3rd wave of the pandemic from January 2022, when certain restrictions were implemented by the GoWB. It is humbly submitted that, during such period, the Company had to work with limited workforce and was successful in ensuring uninterrupted power supply to all the consumers.


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3.2.8. Added to this onerous obligation of universal service, the distribution licensees in the country are required to combat the social menace of power theft. Unfortunately power pilferers have no qualms about their offences. On the contrary, these very persons turn aggressive and violent when the licensees attempt to prevent power theft. Various submissions made before the Hon'ble Commission from time to time stands as testimony to the fact that CESC operates its theft control operation in a hostile environment often involving physical violence against the Company's employees. Recovery of accumulated dues from the Government Institutions is also a critical issue.

3.2.9. In spite of the above challenges, CESC has been able to cater to the demands in its licensed area as well as ensured reliability through uninterrupted supply to its consumers. There is, however, an over-arching need for settlement of its past tariff dues, as an enabler for continuity of its customer-centric services and initiatives.

3.3. **Macroeconomic factors affecting power sector**

3.3.1. The economy has faced unprecedented slowdown in the wake of Covid-19. The pandemic had left its impact on all walks of life, including the business and operations of the Company.

3.3.2. Poor financial performance of power sector has affected the banking industry. In order to recognise the bad loans / NPAs, a significant portion


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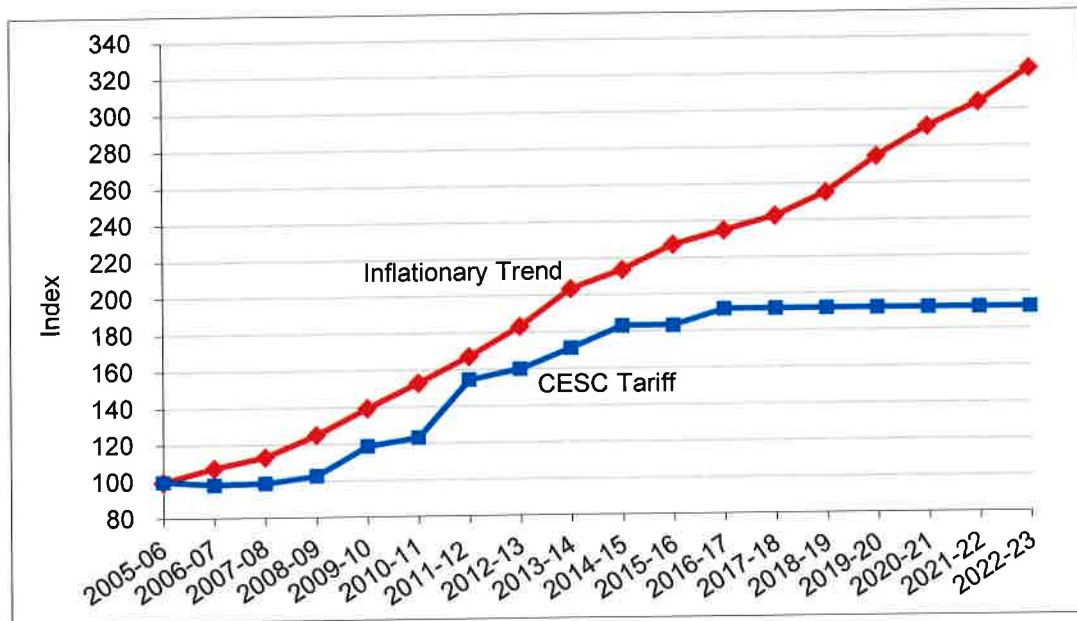
of which was contributed by the power sector, the banks were forced to create huge provisions for the NPAs. With power / infrastructure sector creating large amount of NPAs, availability of fresh loan became dearer. A large part of the advances provided to power sector either required to be restructured or lying as non-performing assets (NPA) with the banks. According to a report published in March 2018 by the Parliamentary Standing Committee on Energy, Ministry of Power (MoP), of the total advances of Rs. 482965 crore provided to electricity generation sector, around 19% of the outstanding advances are under stress. This may further rise due to falling electricity demand as being experienced over last few months in the country.

3.3.3. While CESC has endured the inflationary pressures well in the past through sustained performance improvement, the same impacted the Company adversely.

A blue ink signature of the Company Secretary.

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Chart: 3.1 Movement of Consumer Price Index (CPI)



CPI considered at October every year (source: Labour Bureau, GoI).

3.3.4. Efficiency measures can contain costs only up to a certain extent. Curtailment of necessary expenditure is bound to manifest itself as service inadequacies and eventually goes against the interest of the consumers. It may kindly be appreciated that maintaining its current level of activities is a critical challenge for CESC.

3.3.5. The Company have been exploring various ways and means to contain interest cost at a manageable level and pursuant to protracted negotiations, the Company could manage to keep its average interest rates well below the SBI MCLR plus allowable margin. Considering involvement of several factors and with a high degree of uncertainty




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prevailing in this sector, there is high financial risk in future. Certificates on SBI MCLR movement are placed in this Petition (Page 48, Volume 5).

3.4. Adverse impact of Covid-19 pandemic

3.4.1. The Covid-19 global pandemic gathered momentum in India in March 2020, resulting a strict nationwide lockdown for a prolonged period. The licensed area of CESC was under strict lockdown from 23 March 2020. This crisis facing the world is unique in terms of the quantum of output loss as countries restricted mobility and economic activity to contain spread of the pandemic. Besides, there had been severe uncertainty around the duration and intensity of the crisis, which resulted in a huge negative impact on the global and Indian economy, as well as on the power sector in which CESC operates. The lockdown has not only affected the Company's financial position to a great extent, but also imposed major constraints on all the functional activities of the Company.

3.4.2. Significant additional expenses have been incurred to meet various operational requirements, conforming to relevant Government advisories / social distancing norms and safety of consumers / employees. Particular emphasis has been given on critical operations like seamless generation from Budge Budge Generating Station, system operations and distribution services to ensure reliability of supply. Expenditures have been reported in the Petition specifically as directed by Hon'ble Commission in the MYT


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Order. Relevant Auditors' Certificate has been placed in Volume 3, Page 295 of this Petition.

3.5. **Regulatory uncertainty**

3.5.1. Given this state of affairs, it is therefore of vital importance, to safeguard the sustainability of the Company's operations in the interest of its consumers in general and particularly the smaller segment thereof. All investors / lenders would like to weigh the risk against return and look for suitable incentive schemes on good performance before putting their funds at stake. Unless revenue sufficiency is predictable to meet costs and it provides expected return commensurate with the risk of distribution business, confidence of the stakeholders is bound to erode, the necessary fallout of which will manifest through absence of investment in the sector. Needless to mention that such an eventuality will not only be detrimental for the sector but also have significant repercussions for the State as a whole, particularly when the State is planning to progress along the path of resurgence.

3.5.2. The Electricity Act, 2003 seeks to promote investment in the power sector and it also aims at encouraging private sector participation. Electricity industry is highly capital intensive having long gestation period. This fact has been acknowledged in the National Electricity Policy. The same



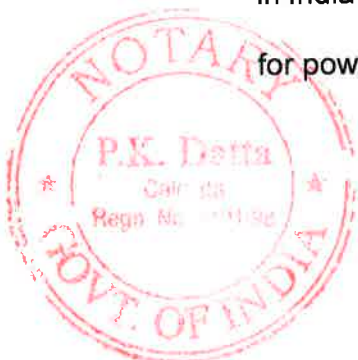

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guiding policy also recognises the need for creation of adequate reserve capacity margin through suitable investment.

3.5.3. Private sector participation in investment is not likely to be forthcoming unless regulatory uncertainties are considerably mitigated. It is submitted that earlier attempts before promulgation of the Electricity Act, 2003, to promote investment and invite private sector participation were not successful principally because of the investors' risk perception. Recent developments have only accentuated risk perception of the sector as a whole.

3.5.4. Regulated licensees in this country are statutorily required to provide critical services, often under hostile circumstances. They need to be able to finance their ongoing operations including essential repairs and maintenance. Therefore, the Company hopes that in view of its consistent high performance, the submissions / prayers as contained in this Petition will be favourably considered.

3.5.5. Securing optimum investment and recovery of costs in the sector and ensuring financial viability is relevant in the context of the developments that took place in the legal regime pertaining to coal in the recent past, which is of great significance for the generation sector (69% of generation in India is coal based). Around 78% of coal produced in India is consumed for power generation.




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3.5.6. As a fallout of the Judgment and Order of the Hon'ble Apex Court of India dated 25 August, 2014 and 24 September, 2014 respectively in the matter of coal block allocation by the Government of India many coal blocks were de-allocated. CESC has been apprising the Hon'ble Commission of all relevant developments pertaining to coal from time to time. Detailed chronology of events leading to allocation of the captive coal mine at Sarisatolli, emergence of this mine as the primary and least-cost source for CESC's generating units, subsequent de-allocation as well as securing back of the mine through e-auction, issues and factors affecting mining operations presently are already in the records of the Hon'ble Commission and are not repeated herein to avoid prolixity. The Company craves leave to rely upon the same, whenever necessary. The risk/ cost of coal procurement has indisputably enhanced to a great extent, which is affecting financial viability and investment in the sector.

4. Supply Scenario

4.1. Demand on CESC system

4.1.1. CESC system has been steadily witnessing significant growth in peak demand. Maximum demand reached 2339 MW in April 2022, which was the highest demand ever met by CESC system. The following chart reflects the steady increase in peak demand in CESC licensed area over

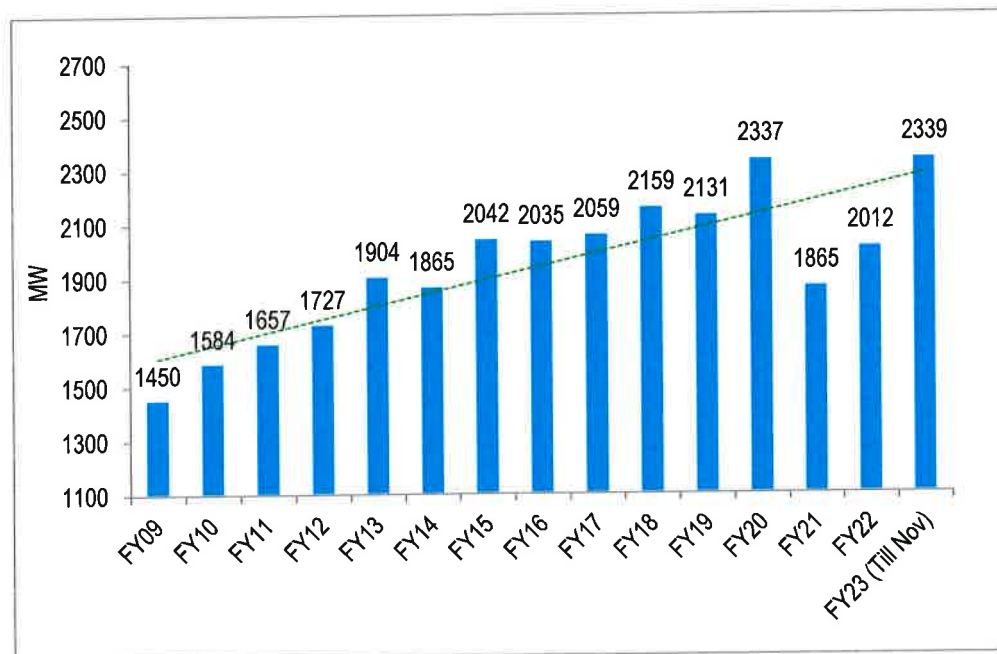



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the last few years. Catering to such a high demand profile calls for development and regular maintenance of commensurate network infrastructure. The Company therefore continues to make substantial investments to ensure quality service and reliable power supply to the consumers through upgradation of both network and technology.

4.1.2. Growth in demand within CESC system over the years is presented in the following chart.

Chart: 4.1 Movement of Maximum Demand of CESC System



Maximum Demand got affected in FY21 and FY22 due to reduced consumption levels driven by Covid-19 imposed lockdown.

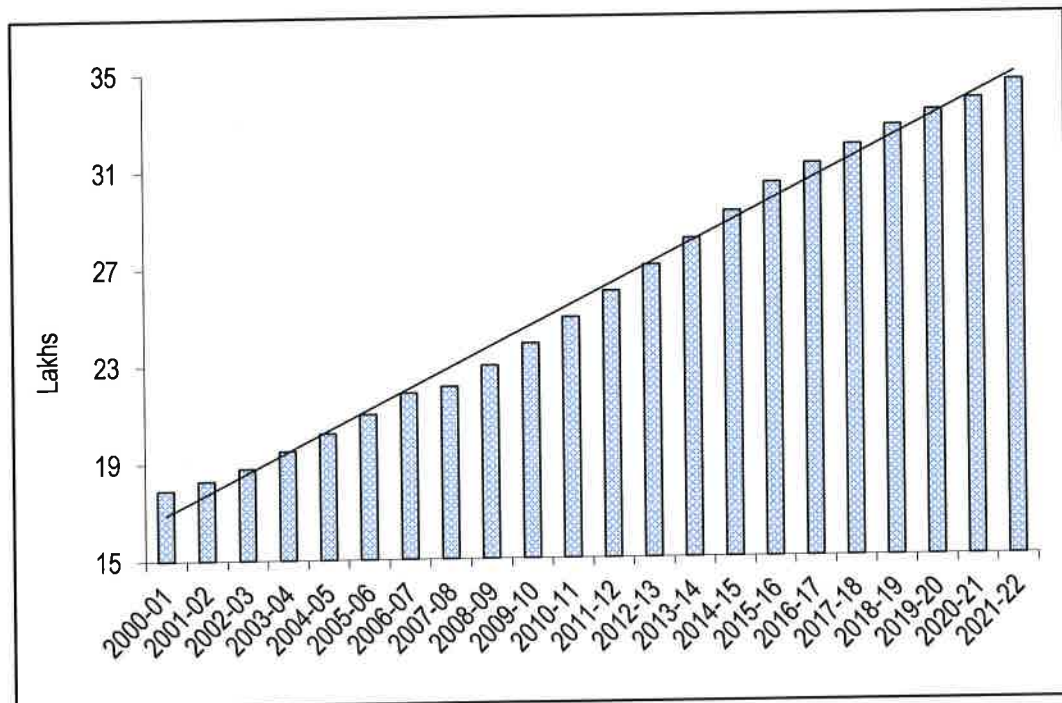
4.1.3. Vertical growth is taking place in and around the city. Consumer number was about 34.5 lakhs by the end of the year 2021-22 from around 18 lakhs




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in 2000-01. Lower end consumer segments have registered substantial growth in a regular manner. All these necessitate large scale network expansion to cater to the growing needs of the city based system. It may be pertinent to mention that, though the maximum demand and the energy requirement were reduced due to the impact of Covid 19 pandemic, but the number of consumers continued to show an increasing trend and the Company had to provide all necessary services to such a high consumer base.

Chart: 4.2 Movement of Consumer Numbers



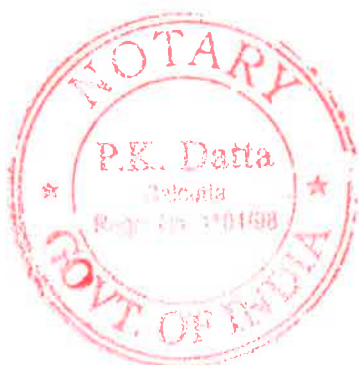
4.1.4. The Hon'ble Commission is kindly aware that for fulfilment of such a high demand in the licensed area, the Company depends on both long term



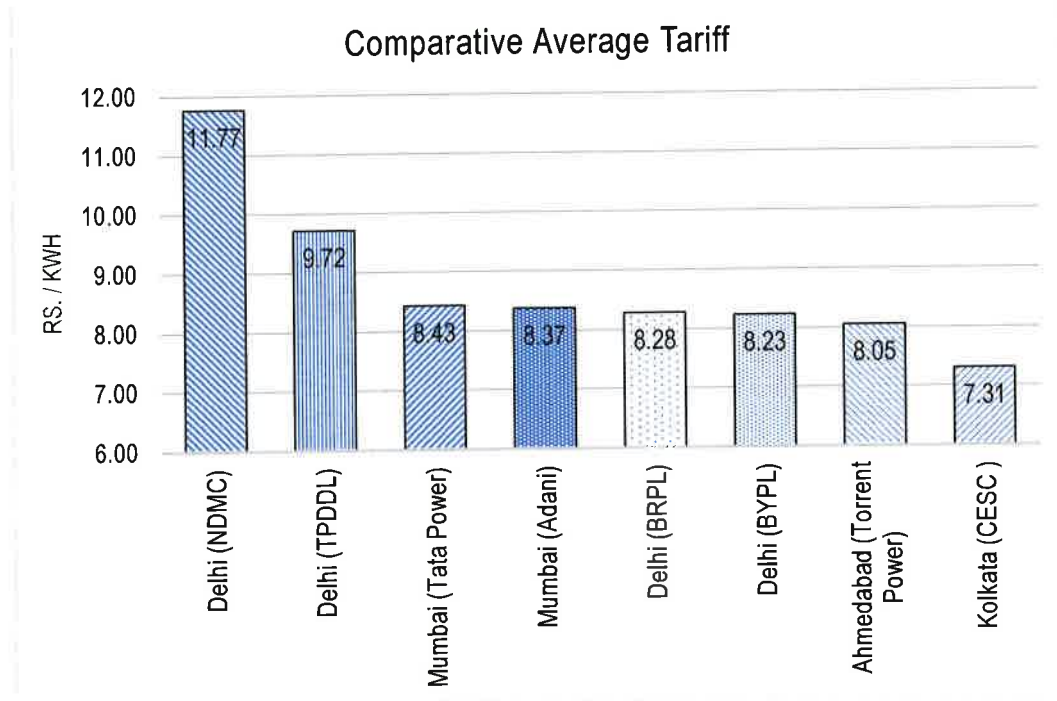

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and short term power sources. Accordingly, CESC system requires augmentation of its distribution backbone and also creation of provisions for bringing in power from the sources. As there are little possibility of renewable generation within the licensed area, the requirement of bringing power from outside will also increase with increase in RPO targets. This will necessitate creation of new network or strengthening of existing network for wheeling of such power into CESC system.

4.1.5. In this context, it is also worth mentioning that gross average electricity tariff of CESC is lower than tariff prevailing in the major metropolitan cities of Mumbai, Delhi and Ahmedabad, as can be evidenced in the chart below. But, to ensure energy security, reliability and to sustain improved operational performance, it is imperative to enhance tariff adequately.

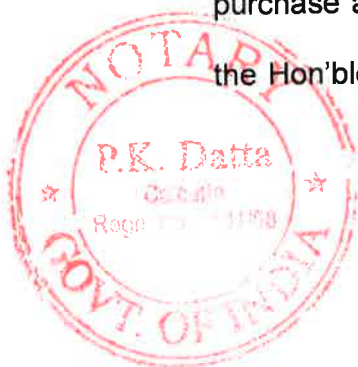
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4.2. Operations profile

4.2.1. CESC, as stated hereinbefore, is also in the business of owning, operating and maintaining its generating stations. The licensed distribution business of the Company has been procuring power generated by the generating stations of its generation business in terms of the Orders issued by the Hon'ble Commission from time to time and the Minutes of Meeting signed between the generation and distribution divisions of the Company. The Company obtains power on long term basis from its generating stations and also from Haldia Energy Limited ("HEL"), under an approved power purchase agreement and in terms of applicable Regulations / Orders of the Hon'ble Commission as relevant, based on the current proceedings




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before appropriate forum, details of which are already placed in the FPPCA Petition and not repeated for prolixity. The Company needs to resort to power procurement from various sources to cater to the overall system demand. It also procures electricity from cogeneration and renewable sources in terms of the applicable Regulations of the Hon'ble Commission.

4.2.2. Electricity is transported to the load centres for transformation to 33 kV through EHV network spread across the licensed area. There are sub-stations / receiving stations where voltage level is brought down from 220 / 132 kV and 132 / 33 kV. Total transformation capacity at sub-station / receiving station is 4977 MVA as on March 2022. Eastern Railway is the only consumer connected at 132 kV in CESC System. There are a few consumers served at 33 kV directly from EHV Substations via 33 kV feeders. Voltage transformation to 11 / 6 kV is carried out in distribution stations, which are fed from 33 kV feeders. From Distribution Stations, 11 / 6 kV feeders emanate to feed 11 kV and 6 kV (HT) consumers as well as for transformation at 400 / 230 V via Distribution Transformers (DTRs).

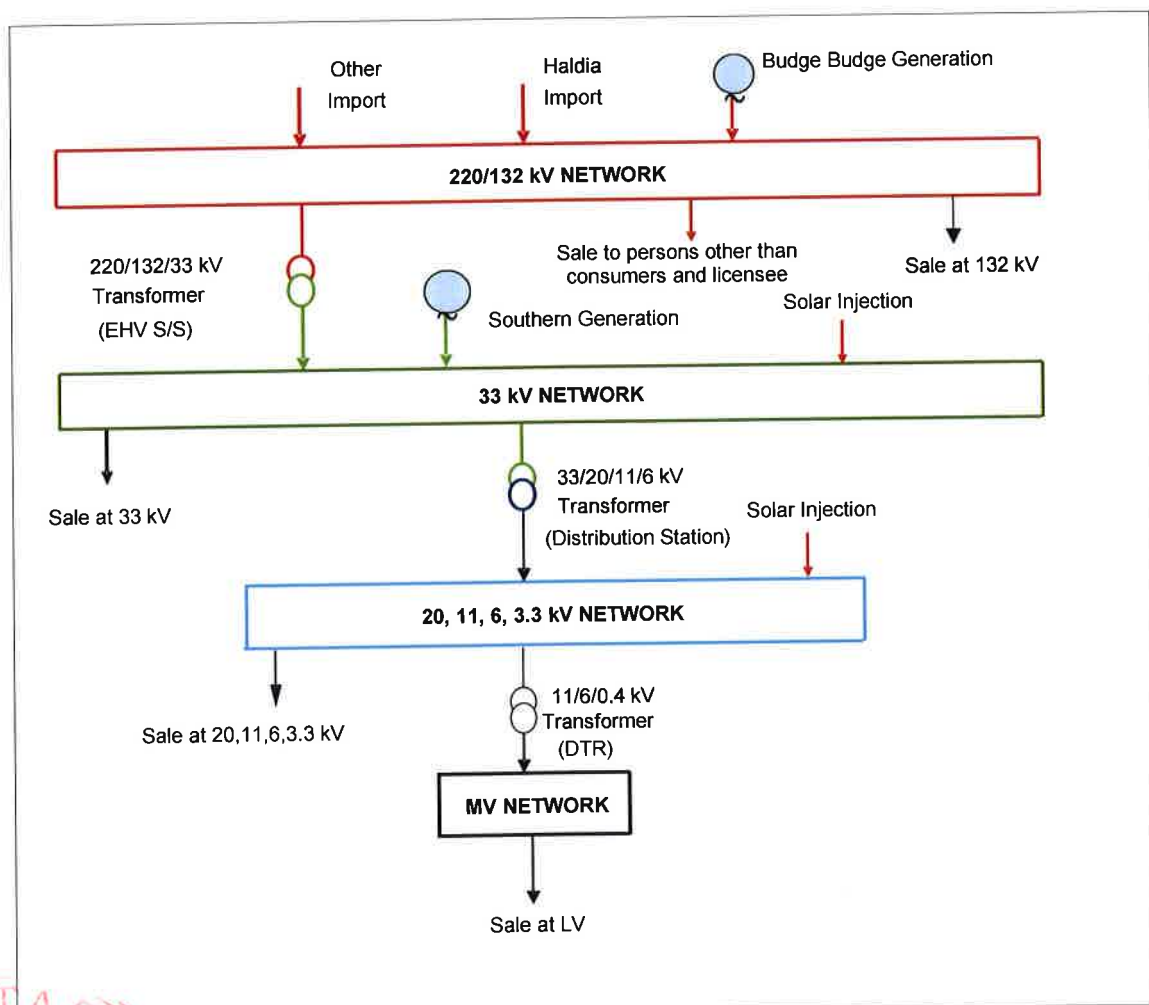
4.2.3. There are 1805 consumers, supplied at 11 / 6 kV. CESC also has a few consumers supplied at 20 kV and 3.3 kV due to its past legacies. Thereafter, electricity is transported to the local distribution centres where it is transformed to 400 V / 230 V through DTRs. 400 / 230 V (MV / LV) consumers are supplied through MV feeders emanating from distribution


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transformers. Millions of consumers are supplied at these voltages. There are 8839 DTRs in CESC's licensed area with total transformation capacity of 3124 MVA.

4.2.4. A schematic diagram showing different voltage levels of CESC's distribution network is presented below.

Chart: 4.2 Schematic Diagram of Different Voltage Levels in CESC's Distribution Network



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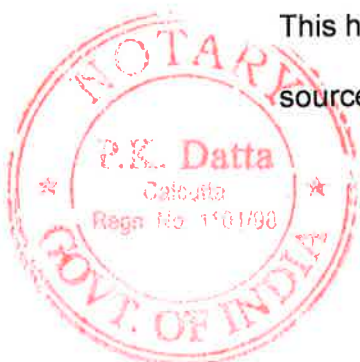
4.2.5. Capacity of substations at load centres and distribution network for supply to the consumers at various voltages as existing at the end of 2021-22 is given in the following table. In the year 2021-22, 133 MVA transformation capacity has been added in the network and total network length increased by 242 ckt. km.

Table 4.1 Distribution Capacity of CESC Limited as on 31.03.2022

Voltage Level	Transformation Capacity (MVA)
220 / 132 / 33 kV	2000
132 / 33 kV	2977
33 / 11 / 20 / 6 kV	3922
11 / 6 / 0.4 kV	3124
Voltage Level	Network Length (ckt. km)
220 kV	269
132 kV	399
33 kV	1669
20 / 11 / 6 / 3.3 kV	7175
400 V	13956

4.2.6. Over the years, stable power supply to the licensed area of the Company, has made it free from shedding of load due to non-availability of electricity.

This has been made possible with reliable availability from the generation sources as well as procurement from external agencies, adequate




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augmentation to the network and improved maintenance regime. These performance parameters have been dealt elaborately in subsequent paragraphs.

4.2.7. Due to its past legacies, CESC system continues to have some peculiar characteristics needing specialised knowledge and equipment, which are:

- (a) Primary high voltage distribution system largely at 6 kV instead of 11 kV, with consequent higher technical losses.
- (b) Continuity of supplies at voltage levels of 20 kV and 3.3 kV.

4.2.8. Like every metropolitan city, with burgeoning population, space continues to be a major constraint and a challenge – from finding the space for meter installation, space for laying cables to network capacity augmentation. Incidences of other public utilities damaging cables of CESC in the course of their activities is not uncommon in the city where power cables, telephone cables, water mains etc. are all struggling for the restricted city space.

4.2.9. The Company strives to provide service to each and every consumer in this sensitive urban environment. Right of Way (RoW) for laying power lines as well as availability of suitable plots of land for establishing substations or for placing the transformers in highly developed and congested urban areas in the licensed area of CESC is also a serious




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concern. The Company always puts every endeavour to create more capacity in its existing substations.

5. Distribution Loss

- 5.1. It is a well-known and acknowledged fact that distribution is the most risk prone segment and weakest link of the entire value chain of power sector, which has also been recognized in the National Electricity Policy. Apart from meeting high consumer expectations in terms of services provided and universal service obligation, the most challenging task of a distribution licensee is containing the losses within the limits in the system.
- 5.2. Losses arise both as technical losses due to laws of physics and also as unauthorized consumption by some consumers of the distribution licensee (commercial losses). There is no management inaction on these issues and in spite of best efforts from the Company's side, containing distribution loss beyond a threshold is outside the control of the distribution licensee under most circumstances. All forms of losses have a direct impact on the Company's performance and profitability.

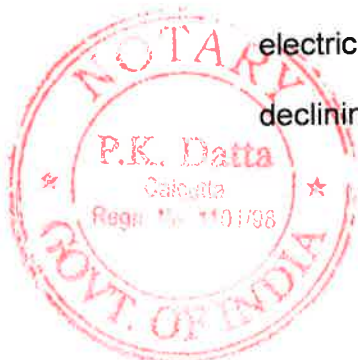



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5.3. Technical factors contributing to distribution loss in CESC's distribution system

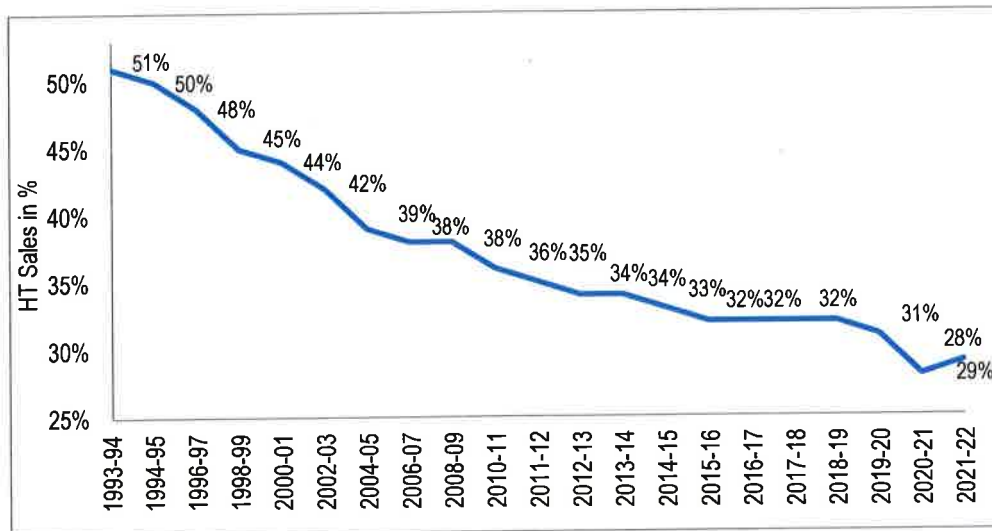
5.3.1. CESC has an embedded network of extra high voltage (EHV) system comprising 132 kV and 220 kV lines in its distribution network. Therefore, distribution loss of CESC includes technical loss incurred in this EHV network also. Such loss has further accentuated with new sources coming up at a considerable distance from the load centres, increased RPO requirement necessitating bringing renewable energy from outside and decreasing contribution from load centre based generating stations on account of environment, vintage and other issues, already on the records of the Hon'ble Commission. Unlike most other licensees, CESC operates its primary distribution voltage level at 6 kV instead of 11 kV which also results in higher technical losses.

5.3.2. In case of CESC, the task of containing the distribution losses within acceptable limit is increasingly becoming challenging as the ratio of HT to LT sales is reducing over the years, from over 51:49 in the year 1993-94 to about 29:71 in the year 2021-22. It is a well-known fact that higher the proportion of low voltage sales, the higher would be the technical component of distribution loss. This change in the sales ratio is totally beyond the control of any licensee and depends entirely on the pattern of electricity demand of the consumers. The following chart depicts the declining trend in proportion of HT sales.




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Chart: 5.1 HT Sales vis-à-vis Overall Sales



5.3.3. Apart from availing power from the generating stations in the licensed area, additional units required to be procured from external sources to serve system growth, is available only at 220 / 132 kV, often at a distance from the load centre. The biggest supplier of long term power, Budge Budge Generating Station (750 MW), is located at the periphery of CESC's licensed area. As the Hon'ble Commission is kindly aware, power from the third unit of 250 MW at Budge Budge Generating Station is being evacuated through a long 90 km 220 kV line (commissioned a few years back), resulting in additional line loss. Power from the second largest source, the 600 MW station of HEL, is available at Subhasgram and needs to be conveyed to serve the city through a long distance. With sources at a considerable distance from the load centres and decreasing contribution from load centre based generating stations on account of




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environment, vintage and other issues, such losses has further accentuated.

5.3.4. Other generating stations serving the licensed business are bussed at 33 kV and distributed locally. Dispatch from Southern Generating Station also operates on a protocol in the best interest of the consumers. Cessation of generation from Titagarh has further reduced load centre generation.

5.4. **Theft of electricity: A major concern and an uncontrollable factor contributing to distribution losses**

5.4.1. Theft of electricity is a significant contributor of distribution loss in the country. As a primary reason of commercial loss, theft remains a major concern for the distribution licensees in the country. CESC's area of supply is not immune from this social menace which is beyond the control of the Company without administrative and judicial deterrents.

5.4.2. The lockdown period has adversely affected the Company's loss control activities and in absence of requisite surveillance due to lockdown related embargoes, loss control activities have become even more difficult for the Company. During this significant crisis due to Covid-19 outbreak, severe power theft is being observed in a few pockets of the licensed area leading to overloading and unbalancing of power distribution equipment like distribution transformers, road-side distribution cables etc. This rampant




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theft is severely impacting the Company's services obligation to provide 24x7 stable power supply.

5.4.3. Theft has been observed to be perpetrated by consumers of CESC as well as people who are not authorised consumers of CESC. Pilferers continuously engage into various innovative methods to defeat the sincerest efforts of the Company to ensure stoppage of illegal use of electricity. There is a serious aspect of theft / unauthorized use of electricity. These activities lead to danger of severe electrical accidents even leading to loss of human life and property. Since these means are undertaken in a densely populated area, the risks are manifold and public lives in these areas are prone to huge danger for the benefit of a few miscreants.

5.4.4. There has been no management inaction on the part of CESC - all possible actions legally available to CESC have been explored. Containing losses to the present level has itself become a challenge. Responsibility of maintaining law and order and preventing theft does not rest on the licensee. It is apprehended that without suitable administrative and judicial deterrents, it will be difficult for CESC to control the menace and the distribution loss percentage figures may show an upward tendency in the coming years.




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5.4.5. In this respect the Company would like to highlight some related figures, which speak for itself. While the Company is continuously pursuing its activities, the administrative action is not commensurate to curbe the menace.

Year	No. of meters checked	No. of hooking removed	No. of FIRs lodged	No. of court cases registered	No. of arrests made
2017-18	721370	130074	6965	49	43
2018-19	884315	115720	6254	59	56
2019-20	782723	94198	4521	60	53
2020-21	274861	14538	1670	42	19
2021-22	273873	17934	1987	36	36

5.5. Actions taken for technical loss management

The following actions are taken on appropriate occasions for controlling technical distribution losses.

5.5.1. Network Upgradation:

- Capacity creation - Regular investments are made for capacity creation in order to meet the system demand, to manage technical loss effectively, and to improve reliability of supply.




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- Primary distribution voltage upgradation - The Company is proactive in upgradation of 6 kV system to 11 kV and numerous activities are initiated to enhance such conversion. This programme of conversion at different load centres is also kept consistent with consumers' upgradation plan and benefits commensurate with investment plan.

5.5.2. Installation of Automatic Power Factor Controller (APFC):

- CESC is installing power factor controllers at appropriate places in the distribution network since 2016-17. Generally, the nearer such power factor controller is placed in the network to the load centre, the better is the performance. Post assessment, management of technical loss at upstream network has been effective at upstream network of the transformer.

5.5.3. Network management:

- Supervisory Control and Data Acquisition (SCADA) and Distribution Management System (DMS) are in place to monitor power flow on real time basis and take corrective actions like load balancing etc.

5.5.4. Condition Monitoring:

- Regular health monitoring of the assets at EHV, 33 kV and 11/6 kV is being done using suitable tools to optimise performance. The important



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measures for this purpose are Dissolved Gas Analysis (DGA) for transformers and Partial Discharge detection for switchgears. Thermographic scanning at outdoor yard is done for hotspot detection.

5.5.5. LT Aerial Bunched Conductor Installation

- It is observed in some areas that the power is drawn directly from bare LT lines by hooking. It can be prevented by replacing the overhead bare LT lines with Aerial Bunched Conductors. CESC is already adopting such measures. Such cables are insulated and difficult to tap. Though it has been observed that consumers are indulging in tampering AB Cable and tapping it. Adequate administrative support to CESC would be essential in curbing this problem.

5.5.6. Use of coaxial cable in LV distribution network

- In loss prone pockets, over the period, even LT AB cables have been abused either by rupturing the insulation in the mid span or accessing the live parts from the joints for hooking / tapping. In order to combat such kind of theft of electricity, coaxial cables are now being used because of its inherent construction which will result in a cable fault if such attempts are being made by the pilferers.




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5.5.7. Service cut-out installation

- The Company is replacing re-wireable fuse cut-outs at the service termination with MCBs / MCCBs inside an enclosure with special types of seals to prevent unauthorized access to the service parts and to ensure safety.

5.5.8. Bus bar Protecting Paint

- In pilfer-prone areas, there is propensity to steal electricity by direct hooking from busbars of pillar boxes. Till 2021-22, CESC has applied busbar protecting paint in about 710 pillar boxes/ Co-axial junction boxes to prevent theft of electricity.

5.5.9. Equipment installation to prevent pilferage and over drawal

- CESC has designed and developed an in-house and innovative service termination equipment namely “Pilfer Resistant and Pilfer Evident Service Unit for LV and MV installation with Overload and Short-circuit Protection Unit” in replacement of conventional cut-outs in theft-prone areas.



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5.6. Energy Audit

- Loss prone areas are being identified through energy audit at LV and MV level of distribution transformers. All the distribution transformers are retrofitted with metering arrangement in theft prone pockets. For the purpose of energy audit, meter reading and monitoring is done at a remote place through GPRS (General Packet Radio Service) communication. Distribution pillar boxes are being metered for further investigation in the theft prone localities.
- Intensive actions are being undertaken in accordance with the law. However, the sensitive nature of most of these areas precludes administrative support, as actions taken in such areas often escalate into severe law and order issues. Voluminous documented evidences exist in this regard and quite a number of them are already on the records of the Hon'ble Commission. Energy audit helps to embark into processes that are detailed below and each of which helps to bring down the losses.

5.7. Actions taken for commercial losses containment

5.7.1. Metering

- Statistical Analysis System: CESC has developed a system for continuous monitoring / control by using Statistical business




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intelligence tool of Statistical Analysis System (SAS) to facilitate better surveillance practices on all categories of customers (Domestic / Industrial / Commercial) on the basis of consumption pattern and take appropriate measures.

- Meter Board Renovation: Old dilapidated meter boards are being replaced with new type of renovated meter boards on regular basis. Jumbled-up wiring in old meter boards causes frequent service faults, loose connection, short circuit etc. Detection of pilferage become difficult in jumbled-up wiring in old meter boards.
- Metered supply has been provided to those who otherwise resort to unauthorised supply of electricity by means of theft. In 2021-22, 9760 new metered connections were given at different pilfer prone areas.
- Meters are tested in the in-house laboratory to identify defective and faulty meters. The meter testing laboratory in the Testing Department of CESC is accredited by NABL, Department of Science and Technology, Government of India.
- To promote pre-paid metering facility amongst consumers, CESC has taken initiatives as directed by Hon'ble Commission. However, it is experienced that the consumers in general are not opting for pre-paid meters and the Company has pre-paid meters lying in stock. As guided




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by the Hon'ble Commission, the Company has introduced various other options to its consumers for payment of electricity bills. These payment options are quite popular and frequently used by the consumers.

5.7.2. Smart Street Light Management System

- Metering arrangement is provided for unmetered street light services through installation of "Smart Street Light Management System" having intelligent meter-cum-controller unit tailor-made for specific requirement of CESC. This unit also has an Automatic Meter Reading (AMR) and Advanced Metering Infrastructure (AMI) facility, self-protecting feature against overload and short circuit enabled with GSM and GPRS communication technology.

5.7.3. Public Awareness Programme

- Extensive public awareness campaigns are undertaken through print and electronic media including the Company's website. Camps are organised at the identified theft prone pockets jointly with local administration, Police authority, Fire Brigade and involving inhabitants, on the damaging effect of theft of electricity like safety and fire hazards etc. Regular visits to schools, distribution of leaflets, putting up posters, mobile announcements are made to instil awareness against this social menace.




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5.7.4. Continuous Surveillance and 24 x 7 Call Centre

- Intense level of activities are carried out in meter checking, surprise inspections, removal of hookings, vigilance, filing of FIRs, following up cases in legal forums etc. Regular round the clock surveillance of all industrial and high-end commercial consumers are carried out within stipulated period, with priorities given to cases where unusual change of consumption pattern is observed as per IT data base. Regular follow-up of the cases is done where unmetered consumption charges have not been paid in order to check whether the accused consumers are getting supply of electricity by any unauthorised means.
- Apart from handling cases of supply breakdowns and other supply related complaints of LT consumers, the Call Centre also works as a channel for theft reporting. Power theft can also be reported through the website of the Company (www.cesc.co.in) as well as through WhatsApp.

5.7.5. Loss control cell – A dedicated team and IT enabled system

- Loss Control Cell (LCC) has grown to be a full-fledged department, armed with exclusive software named System for LCC Information Management (SLIM).



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5.7.6. Smart Energy Management System

Activities under this covers:

- (a) Recording of total energy consumed in different parts of the system under audit.
- (b) Energy Audit of whole / part of own consumption to initiate demand side management for flattening the system load curve, thereby reducing the import of costly peak power.

5.7.7. Distribution Zone formation:

- To reduce loss in a specific area, the area has been divided into multiple micro Distribution Zones (DZ) with two to four DTRs each and rearranged the network. This is the first of its kind approach for creation and management for Distribution Zones. Various types of actions have been taken to reduce the loss such as identification of consumers having no authorized supply, hassle-free new connection provided through process change, employing local youth as brand ambassadors and CSR initiatives for community development etc. Distribution zone based focused approach helps CESC to identify the problem areas.




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5.7.8. CSR initiatives

- The CSR initiatives like computer training program for local youth, health monitoring program for kids, training program for local women were undertaken by the Company to engage with the community in a more meaningful way, thereby curbing the tendency of unauthorised use of electricity.

5.8. Distribution loss – Summary of Submissions

5.8.1. The Hon'ble Commission is kindly aware that plateaued rate of reduction of distribution loss becomes extremely low beyond a threshold level, and involves significant capital and operational expenditure. Insistence of continuous betterment of performance parameters is not always technically possible and may prove to be counter-productive for the consumers.

5.8.2. Further, it is an acknowledged technical fact that higher the proportion of low voltage sales, higher is the distribution loss on account of technical reasons. HT: LT load mix is beyond the control of any licensee and depends entirely on the consumer demand pattern. It is a matter of record that proportion of sales of electricity to high voltage consumers has been gradually declining in CESC's licence area. Simultaneously, with increasing urbanisation and vertical growth, low voltage sales have been on the increase. All these factors, which are entirely beyond CESC's




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control, had a marked adverse impact on CESC's distribution loss. Covid-19 related disruption has affected the HT: LT ratio and also made physical loss control measures more difficult due to various embargoes.

5.8.3. Theft has been observed to be perpetrated by consumers of CESC as well as people who are not authorised consumers of CESC. Pilferers continuously engage into various innovative methods to defeat the sincerest efforts of the Company to ensure stoppage of illegal use of electricity. Apart from tackling such issues with technical innovations, the Company also takes steps to create social awareness with active consumer participation. However, it is unfortunate that such consumer education and campaigning do not necessarily yield meaningful results as the miscreants find it beneficial to thief rather than being compliant with law.

5.8.4. The Company continuously keeps the police administration informed about the incidents of pilferage and also seeks the department's support for preventing theft of electricity. There has not been any lack of requisite actions on the part of CESC or its management as is lawfully available before the Company, to deal with the menace of theft of electricity in CESC's area of supply. It is submitted therefore, that loss due to theft / unauthorised use of electricity is an uncontrollable factor for the energy sector, unless, concomitant legal and administrative regime creates the necessary deterrents. Not only the employees of the Company, even




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common people, trying to curb electricity theft, are also physically threatened at times.

5.8.5. The Hon'ble Commission may kindly appreciate that since the Company can take all reasonable steps within the four corners of law, the principal deterrent towards theft / unauthorised use of electricity is in the domain of the Administration and the Judiciary. As a law-abiding entity, CESC, a licensee, is duty bound to lodge complaints with the police administration in each case of detection of theft of electricity and CESC never fails in doing so. There has been no management inaction in this respect. But major steps towards annihilating this serious social menace depend upon the serious efforts of administration coupled with timely judicial decisions.

5.8.6. It is the Company's concern that without effective administrative and judicial deterrents, it will not be possible for CESC to control the menace and the distribution loss percentage figures will show an upward trend in the coming years unless huge technical, financial, legal and administrative resources are mobilized with all support from the society at large.

5.8.7. Considering, inter alia, the above factors, it is submitted that CESC is already operating at optimum level of technical loss and potential for further reduction of distribution loss for CESC system is very low. It requires significant capital expenditure in a continuous manner to

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strengthen network, appropriate administrative support to control theft and sufficient employee strength.

6. Distribution System Performance

- 6.1. Performance of the distribution system is accorded high importance by the Company. The Hon'ble Commission has stipulated stringent standards of performances of distribution licensees. CESC is committed to adhere to the standards set by the Hon'ble Commission.
- 6.2. The Company is deeply grateful for the Awards, Merit and Quality Certificates that have come its way. This reflects the continuous pursuit of the Company in striving for excellence in all spheres of its activities. However, it acknowledges the fact that though these awards recognise the endeavours made in supplying quality power and commensurate reliable service to the consumers, the Company has to continue its endeavours so as to be able to provide quality service to the consumers in future also. Some of the awards received are enlisted below. Some photographs in this respect are attached to this Petition.

- Adjudged winner of 'ICC 6th Innovation Award 2018' under the category 'Efficient Distribution Operation'
- Received 'Assocham India Energy Excellence Awards 2019' for 'Innovation in Energy Solution'




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- Innovative Development and Energy Excellence Awards 2018 - CESC has been recognized by Assocham, India in winning the project of 'Digital Transformation of meter inspection activity through Field Force Automation' under the category of 'Innovation in Energy Solution'
- Adjudged winner of 'ICC 7th Innovation with impact Award 2019' under the category 'Quality of Service and Customer Empowerment'
- Awarded under 'Project Evaluation & Recognition program 2019' by Frost & Sullivan for 'Cost Leadership (Service Sector)'
- Received CBIP Award for 'Best Performing Power Distribution Utility' organized by Central Board of Irrigation & Power in 2019
- Received 'National Award for Supply Chain and Logistics Excellence 2018' by Materials Division from CII Institute of Logistics
- Adjudged winner of 'IPPAI Power Awards 2019' under the category 'Best Performing Distribution Company'
- Adjudged winner of 'IPPAI Power Awards 2019' under the category 'Best DISCOM to promote Consumer Awareness'




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- Adjudged winner of 'IPPAI Power Awards 2019' under the category – Innovation business models of T&D loss reduction in Loss Prone Pockets within Licensed Area'
- Received Platinum - CII EXIM Bank Award for Business Excellence 2019
- CESC emerged as the first runners-up at the 6th CII National Excellence Practice Competition on 'Customer Engagement & Satisfaction Practices' in the Power/Infrastructure category in 2018
- CESC has been adjudged as the 'Best Performing Utility in the Power Sector – Power Distribution, Transmission and Generation' in '12th Enertia Awards 2018'
- Awarded with "Manufacturing Supply Chain Awards 2019" – (a) "Operational Excellence in Procurement" and (b) "Strategy Excellence in Inventory Planning & Control"
- Recognised by the Great Place to Work Institute amongst the India's Best Workplaces in Manufacturing 2020

6.3. Consistently meeting universal service obligation

Universal service obligation is an onerous responsibility of a distribution licensee. A large proportion of the consumers of CESC belong to a low consumption segment of around 38 units per month. Less than 10% of total units sold are consumed by about 58% of overall consumer base. However,



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stringent service obligations are required to be met for this huge consumer base and all necessary expenditure have to be incurred to fulfil the responsibility of universal service obligation cast upon the licensee under the Act. The Company endeavours to fulfil the expectation of its consumers through a number of initiatives and has been consistently fulfilling its universal service obligation. Details are furnished later in this Petition.

6.4. **Improvement in services**

In the year 2021-22 alone, about 97000 consumers have been added to the distribution system of the Company. Significant improvement has been achieved in providing new connections by reducing inspection time through computerization of the entire inspection related process. For new applications, information relating to status of application, inspection dates and payable amount along with other relevant information/documents are communicated through e-mails and SMSs. The status of the applications can also be checked from CESC's Mobile APP and the website.

6.5. **Improvements in metering infrastructure**

- 6.5.1. All non-superior old electromechanical type meters have been replaced. A comprehensive software supported meter management system is in place to keep track of the meters.




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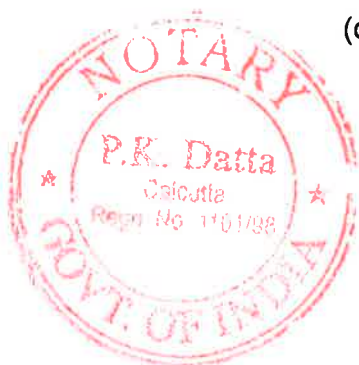
6.5.2. The Company has achieved 100% metering for all categories of consumers including street lighting supplies of all Municipalities and other Public Bodies except a small portion of one Municipality in the fringe area (around 0.02% of the overall sales) for the year under review.

6.5.3. Coverage of AMRs/ Smart Meters increased significantly during the year. The coverage is being expanded in a phased manner to various customers including housing projects. About 3000 nos. such meters have been added in the system in FY22. The meter data is available in a browser-based meter data management system for viewing loading status and breakdowns to help take prompt corrective actions.

6.6. Performance improvement measures

The internal measurement and control of various parameters of the distribution system performance are carried out in line with the regulatory needs and consumer expectations on a regular basis and improvements on the same are carried out by taking suitable corrective actions. CESC's overall effort of improving the distribution system performance is broadly structured around the following three themes.

- (a) Strengthening the basic distribution backbone;
- (b) Reliability through service innovation; and
- (c) Prudent maintenance management system.

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Each of the above is illustrated in the following paragraphs.

6.6.1. Strengthening the basic distribution backbone

- (a) CESC is in the process of developing a 220 kV ring-main network to provide 'N-1' redundancy. EHV network development is also being carried out considering merit order despatch of generation and / or purchase of power from different sources.
- (b) The Company has strengthened the connection with Kasba 220 kV sub-station of WBSETCL by upgrading the voltage level from 132 kV to 220 kV. This arrangement has provided an additional capacity for importing bulk power from external sources and can also serve as an exit point in future for smooth disposal of surplus power, if any.
- (c) CESC has put together a comprehensive roadmap for strengthening its distribution infrastructure taking into account the long-term demand scenario vis-à-vis increasing dependence on sources located away from load centre. This includes:
- I. Establishing / augmenting connectivity with state or national grid to facilitate external power procurement.


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- II. Installation of new substations and / or capacity augmentation of existing substations.
- III. Commissioning of gas insulated substations (GIS) at strategic nodal points to enhance network reliability, facilitate space savings and replacement of old equipment.
- IV. Space consolidation in existing substations to generate space for capacity augmentation of the substation and for future provisions.

However, the challenges to network addition / augmentation persist in the form of space constraint and RoW issues.

- (d) The Company undertakes continuous upgradation of the distribution infrastructure to provide safe and reliable power supply. These include commissioning of new distribution stations, augmentation of transformation capacities, upgradation of voltage level, establishing ring main connectivity and addition / replacement of the underground / overhead cable network along with use of modern equipment. Statistics of a few measures undertaken for improving system redundancy and reliability are given below.




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Chart: 6.1: Status of 11 kV and 6 kV network (ckt km)

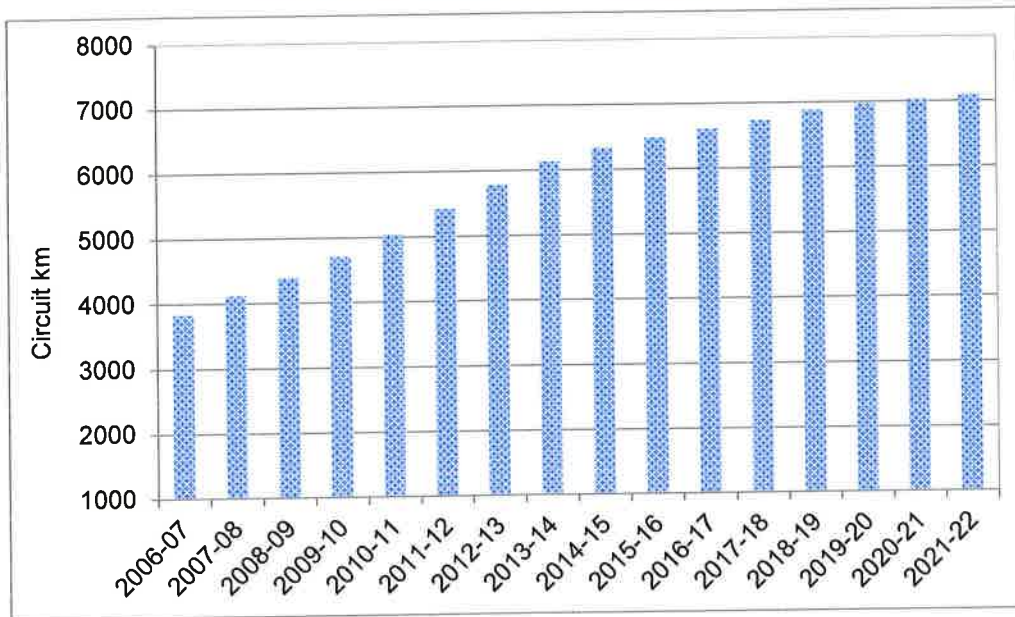
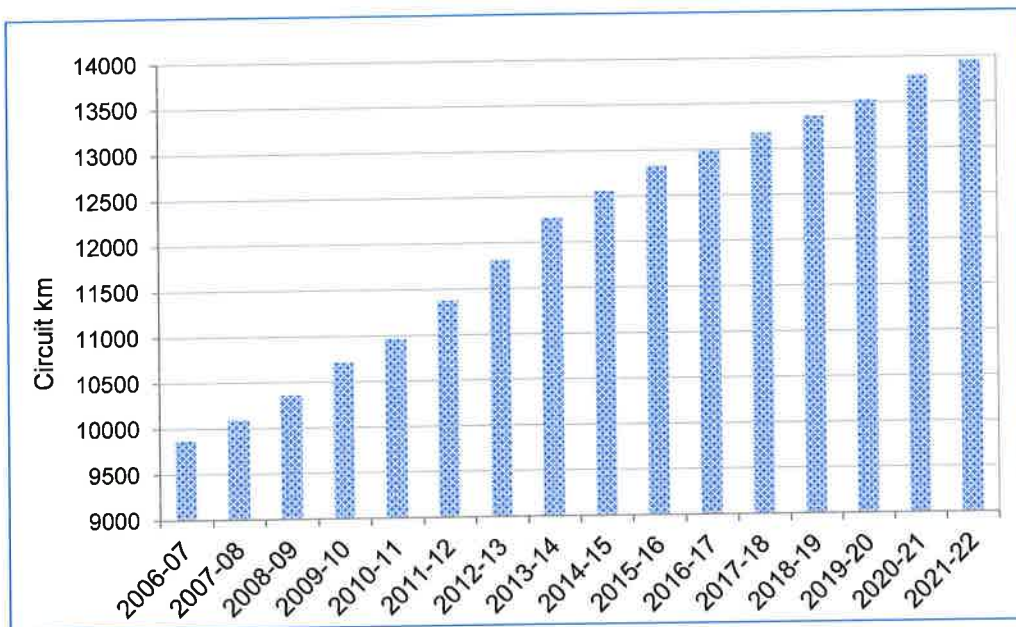
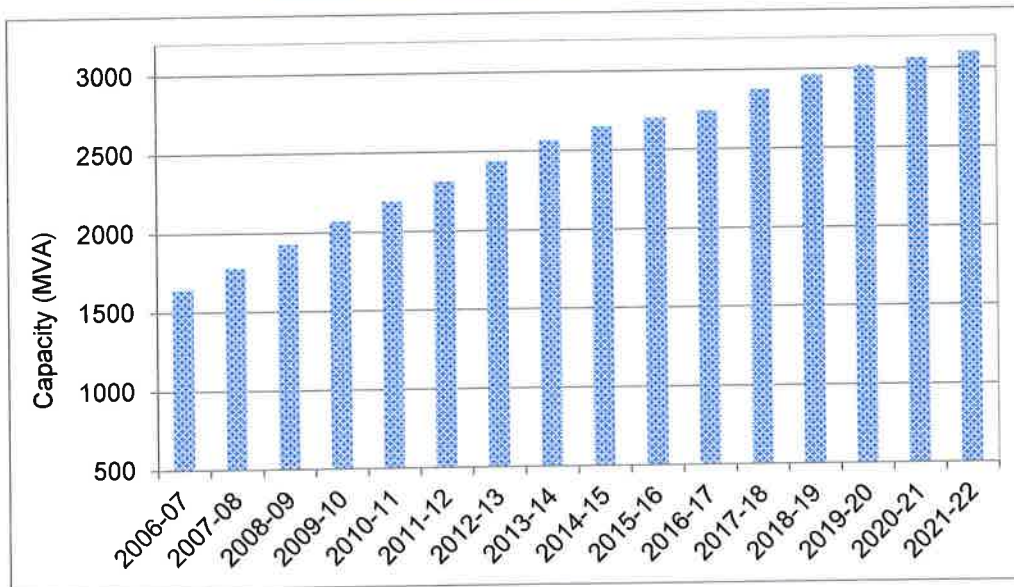


Chart: 6.2: Secondary LT network (ckt km)




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Chart: 6.3: Distribution Transformer Capacity (MVA)



6.6.2. Reliability through service innovation

- (a) CESC is committed to continuous improvement of the distribution network to meet the growing demand of its consumers, with safe and reliable supply of electricity being the highest priority. At the heart of the approach to innovation is the commitment to continuous improvement of services. This commitment to innovate and improve covers CESC's entire distribution services, including Customer Relationship Processes, Connection Management, Asset Management, Network Automation, Safety and Sustainability, Remote Work Force Monitoring and back office functions.




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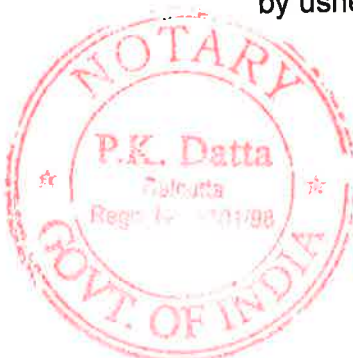
(b) Like all innovations, the innovations in CESC related to the LT network were motivated by operational bottlenecks. Some of the prominent operational bottlenecks faced by CESC are illustrated below.

- One of the major obstacles faced was that, due to the vast spread and diversity of the LT network, monitoring of the same through a single window was difficult.
- Fuse protection in CESC system was by means of re-wireable copper fuses at pillar boxes, pole cut outs and service cut-outs. Supply interruptions due to fusing at pillar boxes were frequent and formed a major portion of the supply interruptions encountered by the consumers. Due to inherent nature of the re-wireable fuses, the fusing current for such fuses depend on a variety of factors such as condition of fuse contacts, the skill of the workman installing the fuse, fuse material and in service age of the fuse wire etc.
- LT cable faults were another operational bottleneck. The LT cable is laid at a much lesser depth as compared to HT cable. Moreover, there are numerous joints, predominantly tee joints for providing services along LT distributors, thus creating a number of points prone to fault at these joints throughout the length of the cable.




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- An age-old problem associated closely with LT distribution network is the elimination of low voltage pockets developed as a result of installation of air conditioners and other power guzzling appliances. The problem becomes even more acute when the pockets have to be eliminated while limiting the investment requirement.
 - Being an urban utility, CESC faces the problem of paucity of space, especially for installing pillar boxes which necessarily have to be erected near load centres. Planning for excavation work is also a critical issue, as only a limited time period is allowed by the civic authorities for such kind of work. The cost of road restoration that has to be paid to civic authorities for any excavation work undertaken is quite high for urban areas.
- (c) Some of the innovative approaches adopted by the Company are described in the following paragraphs.
- LT Control Room: An LT Control Room (operational 24 X 7) has been set up. It is manned by selected domain experts, who monitor the operations in the LT System and ensure compliance within stipulated timeline for each critical process. It also acts as a Centre of Excellence by ushering in the latest technology and innovation in the LT system by



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regularly scouting the technology space and after proper trials and experimentations, embedding them in the system.

- GIS and GPS integrated consumer complaint management system: At the LT Control Room, CESC has innovatively blended the GPS based mobile crew tracking system and the GIS based mapping of its consumers for better monitoring of the LT trouble call management.
- AMR in DTR integrated with GIS: All the DTRs are provided with AMR. The innovative piece was depicting all these DTRs with these online readings on the GIS map with colour coding to indicate the load profile.
- Smart Pillar Box: CESC has re-engineered the conventional pillar box, replacing the re-wireable copper fuse units by Fuse Strips fitted with High Rupturing Capacity (HRC) fuses. Also, by adding an automated module to the pillar boxes, a process has been developed where in a SMS is triggered by the automation module during any outages.
- LT Compact Substation (LTCSS): Quite a few numbers of low voltage complaints are received every year by CESC. Such low voltage complaints are now being resolved, where ever possible, by installation of LTCSS. LTCSS essentially comprise of two components, namely a voltage regulator and a capacitor bank, installed individually or in a combination at strategic points in the LT network.




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- The Company has targeted new technologies as research and development activities, in a limited scale, in the area of Battery Energy Storage System, Electric Vehicle Charging Station (EVCS), Blockchain technology, which are considered to be essentials for the future power systems.
- The Company has installed a Battery Energy Storage of 315 kWh at East Calcutta S/S. Various applications e.g. peak power clipping, energy arbitrage, voltage regulation, frequency response have been studied in detail which would facilitate larger application of BESS in CESC System for improved system performance.
- Repeated occurrences of Cut Out failure due to gross over drawal by consumers have prompted CESC to develop a 'Cut Out Less Service Unit'. CESC has applied for a patent for the device. Additionally, installation of LT auto-changeover device at consumer premises has also been aimed at reducing the time for supply resumption in case of any LT fault.
- Reduction in feeder tripping: With the aim of increasing reliability and providing uninterrupted supply, a spike prevention team has been formed to monitor the work done by external agencies and to prevent accidental damage to underground cables caused by them.




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- Several initiatives like mobile vans equipped with GPS tracking system, 'Power on Wheels' service to extend support to the restoration team and Installation of automated supply modules to ensure immediate restoration.
- The timelines for restoration of supply are mostly within the time limits stipulated by the Hon'ble Commission in the Regulations, due to the above multi-pronged activities at all levels in the organisation. However, CESC's distribution network being mostly underground, it is frequently affected by micro-tunnelling as well as excavation work by other service utilities / civic bodies / entities for drainage and sewerage revamping activities etc.
- The Company has taken up a programme to replace its old / outlived SCADA System. The new state-of-the art SCADA will comprise Energy Management System (EMS), Distribution Management System (DMS) and Outage Management System (OMS) to facilitate enhanced reliability and operational flexibility.
- These efforts have resulted in further improvement in the reliability parameters. CESC has been furnishing information on interruptions from 2015-16 to the Hon'ble Commission in terms of the applicable Regulations with suitable information disclosure in the Company's website as well.

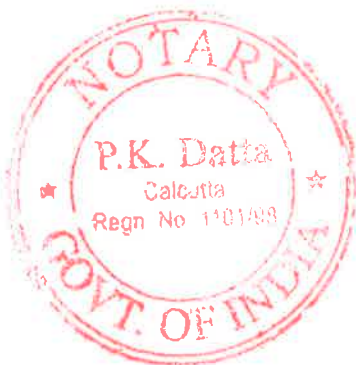
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6.6.3. Prudent maintenance management system

(a) The Company is making a shift from routine breakdown maintenance to condition monitoring based preventive maintenance, which allows preventive and corrective actions to be scheduled at the optimal time. New technological advances progressively adopted under condition based asset management practices are given below:

- (a) Partial Discharge (PD) Monitoring - enables a comprehensive assessment of the condition of insulation. Different non-intrusive techniques for detection of PD in high voltage apparatus have been evolved.
- (b) High Frequency Current Transformer based online monitoring & localization of partial discharges in HT&EHT underground cables.
- (c) Ultrasound Detection - Suited generally for the detection of surface discharges.
- (d) Transient Earth Voltage Measurement - Suited generally for indoor air insulated switchgear.
- (e) Radio Frequency Interference Scanning - Suited generally for outdoor installations.




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- (f) Ultra-High Frequency Technique - Suited generally for SF6 gas insulated switchgear.
- (g) Thermographic Detection (Infrared Radiation) of hot spots in energized distribution equipment is carried out.
- (h) CESC has developed Distribution Related Engineering Asset Management System (DREAMS), a software tool which has helped optimisation of maintenance and related expenditures of distribution assets over their life cycle and to formulate an asset replacement strategy.
- (i) The Company has done condition monitoring of HT assets belonging to the HT consumers, so as to locate partial discharges and hotspots in their power system and recommend corrective measures.

7. Consumer Services

- 7.1. CESC is committed to delivering best-in-class services to its 3.5 million Consumers through innovative processes as well as effective deployment of technology and mobility solutions. In this context, CESC's approach is to continuously improve consumer experiences that will in turn be value-additions to the Company by creating its unique identity in the minds of the consumers, under the guidance of the Hon'ble Commission. A number of




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initiatives have been introduced to improve Customer service, some of which are detailed below.

7.2. **New connection to consumers**

- 7.2.1. CESC added around 97000 new consumers during the year 2021-22. Applicants get an estimate of the necessary Security Deposit through a Cost Estimator available in the Company's website, even before making an application. The Online application process has been further simplified for the ease and convenience of the Applicants. Application system is fully online and a large number of the applications are received online.
- 7.2.2. Challenging internal benchmarks have contributed immensely in reducing the time taken to provide a new connection. At present, supply is being offered within two days on an average after receiving a complete application from a prospective consumer and supply is connected within one day on an average after the necessary compliance by the consumer.
- 7.2.3. For new applications, information relating to status of application, inspection dates and payable amount along with other relevant information/documents are communicated through e-mails and SMSs. The status of the applications can also be checked from CESC's Mobile APP and the website.




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7.3. Complaint handling

7.3.1. The Company provides different channels for reporting any problem that the consumers may face and they are free to choose any convenient method to lodge the complaint. Various options available to the consumers are as follows :

7.3.2. IVRS enabled Supply and Billing Call Centres

- The Company operates a 24-hour Call Centre (Telephone No.1912, 033-4403-1912 and 1860-500-1912) for providing services to solve supply related problems at the quickest possible time. To provide better connectivity to the Consumers, a new Helpline Number 033-3501-1912 has been added. The Call Centre handles cases of supply breakdowns and other supply related complaints of the consumers.
- The Company operates a 24-hour HT Call Centre (Telephone No.2225-9156 and 2225-9157) with 60 incoming lines for providing services to the HT consumers to address the supply or bill related queries / complaints in the quickest possible time.

7.3.3. HT Control Room

- There is a separate help desk at the Control Room to attend to complaints of HT consumers. Special teams comprising Distribution



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Engineers, Supervisors, skilled and unskilled persons are available round the clock at decentralised command stations to attend to HT faults in the distribution network.

7.3.4. LT Control Room

- The Company has a fully functional LT Control Room operated by Distribution Engineers to bridge the processes of Call Centre and Regional Reporting Centres for better management of consumer complaints and to ensure faster restoration of supply. Leveraging the advantages of automated metering of distribution transformers, geographical information system and smart network, this Control Room provides seamless connectivity between Call Centres, regional reporting centres and repair teams. Repair teams are deployed round the clock with vans fitted with wireless communication equipment, GPS devices, emergency restoration system and generator back-up.

7.3.5. Key Account Managers

The Organisation has in place “Key Account Managers” i.e. an Officer of the Company allocated as a dedicated Key Account Manager for consumers, as their Single Point of Contact to provide them requisite assistance, as and when required. This initiative now covers quite a large number of consumers both from the HT & LT segments. The




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primary objective is to develop a mutually beneficial long-term relationship with the consumers.

7.3.6. Commercial helpdesk

- As an extension to existing Supply Call Centre, a Commercial Call Centre is also operating to provide end-to-end solutions to all commercial complaints. Consumer calls related to billing, metering and payment etc. are directed to the Commercial Call Centre from the Helpline Numbers for smooth and hassle-free service. Guidance on other value added services e.g. change of name, application for load enhancement due to installation of air-conditioner, etc. is also provided through this platform.
- A Centralised Complaint Management Centre is also in operation as the back office of the Commercial Helpline. It ensures uniform and accurate resolution of commercial complaints from all over the licensed area.

7.3.7. Digital avenues for Complaint Handling

- Consumers can also report complaints through the website of the Company (www.cesc.co.in) as well as through e-mail, SMS, WhatsApp messaging, Facebook, Twitter, Instagram, LinkedIn and the Mobile



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- In 2021-22, Social Media activity has been strengthened for better content and online reputation management along with quality and timely responses to Customer queries and complaints. Engagement numbers have been on an increasing track and response time is reduced to an average of 7 minutes.
- Support on Online processes is also provided to consumers through WhatsApp and pull SMSs. A special E-mail helpline exists for each Online process and all mails to these E-mail IDs are attended appropriately.
- **Chatbot- eBuddy:** As a part of its continuous efforts to enhance consumer Delight and to reduce Customer`s wait-time, CESC has launched its Chatbot- eBuddy, which is now live on CESC`s Website (www.cesc.co.in) and Mobile App. This Chatbot assists consumers to avail a bouquet of E-Services and also handles various consumer queries, complaints and requests. It provides quicker and easier online solutions to consumers and makes interaction with CESC a hassle-free and delightful experience.
- **WhatsApp Bot:** CESC has launched another digital service on WhatsApp, which is enabled with artificial intelligence and machine learning capabilities, to provide yet another convenient service platform for its Customers, especially in the pandemic situation. By sending a




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simple text message “Hi” to CESC’s WhatsApp number, Consumers can avail of services like view/download monthly bill, registering a complaint or checking its status, report supply disruption, access FAQs and avail entire range of e-services. Till 2021-22, it has received more than 63 lakh messages from around 2.27 lakh unique users.

- **Voicebot (Aastha)** – CESC has launched "Aastha" – the Digital Voice Bot for our Consumers as part of its ongoing digitalisation initiatives to enhance Customer Experience. This newly introduced VoiceBot is a humanoid, enabled with Artificial Intelligence, Machine Learning and Natural Language Understanding and Processing capabilities. The voicebot has been integrated with our existing CRM and Outage Management System to ensure quick and uniform assistance to the Customers. CESC is the first Power Utility, in the country, to introduce voice-based assistance via CRM for outage management, with multilingual capabilities.

7.3.8. Other Consumer friendly initiatives related to Complaint Management

- CESC has been operating successfully a Queue Management System (QMS) in its regional offices to reduce time required for handling consumer issues. QMS, in the first step, helps in maintaining uniform workload distribution amongst various consumer-counters and thus results in speedy resolution of consumer issues. Consumer complaints




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are also registered and documented systematically through this process. Systematic documentation of consumer complaints / queries and analysis of captured data help in identifying the potential thrust areas in operation.

- Moreover, all the regional offices are now equipped to receive any consumer's complaint irrespective of the consumer's geographical location and the corresponding operational jurisdiction of a particular regional office in the consumer's area of supply. Thus the regional offices are now operated in a 'boundary-less' manner extending services to all the consumers in CESC's entire area of supply. The Counters are now amalgamated so that each Counter provides all kinds of services. Counter Timings have also been adjusted to enhance customer convenience.
- CESC has updated the CESC Mobile App (CESCAPPS) with additional features, to make it modern, state-of-the-art and even more user-friendly with features such as 'hassle-free registration', 'customizable dashboard based menu', 'push notifications' and 'one-touch Complaint docketing facility'.

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7.4. **Grievance Redressal Forum**

7.4.1. The Grievance Redressal Forum (GRF), constituted as per the Electricity Act, 2003, is functioning in accordance with the Regulations and information on its functioning is reported to the Hon'ble Commission. Also, communications regarding grievance redressal procedure are sent to the consumers through electricity bills and through Newspaper advertisements. Gist of the grievance redressal procedure and the names and official designations of the Grievance Redressal Officers (GROs), Central Grievance Redressal Officers (CGROs) and of the Ombudsman, along with their offices are also displayed on the Company's website.

7.5. **Meter reading and billing**

7.5.1. The Company has implemented meter reading through hand held devices and as soon as the reading is recorded in the Tablet, the concerned consumer receives an SMS indicating the meter reading. This helps the consumers to keep track of their meter reading and consumption in a better manner.

7.5.2. Billing related activities are carried out following a structured schedule, starting from meter reading, generation of electricity bill and receipt of the same by a consumer so as to ensure adequate lead time from payment.


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7.5.3. Vernacular billing options

CESC provides the option of getting electricity bills in vernacular languages (Bengali / Hindi) for all the consumers. To avail this facility, a consumer can either log into the Company's website or may even send SMS or WhatsApp message and seek the option of receiving the electricity bill in the desired language.

7.5.4. Digital services related to billing

- Bills are sent to consumers via e-mail immediately on generation of the same, if the consumer registers his/ her e-mail ID with CESC.
- A variety of SMS services are provided to consumers. Information relating to scheduled meter reading date, reading details, Bill delivery date, payment of Security Deposit for Name Change of an Account, receipt of cheque etc. is communicated to the consumers through SMSs / emails on a regular basis.
- **Wondermail**, a Mobility Solution is operational for CESC's consumers. The Bill Generation SMS has been amended to include the special Wondermail Link, clicking on which a number of services like viewing and paying bills, regular updates on CESC's #LiveFreeBreatheFree Campaign, online payment options etc. are available.




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- CESCAPPS, the mobile APP of the Company has an array of options like bill details including last payment details, bill payment options, E-bill registration, complaints` lodging, new connection application status etc.

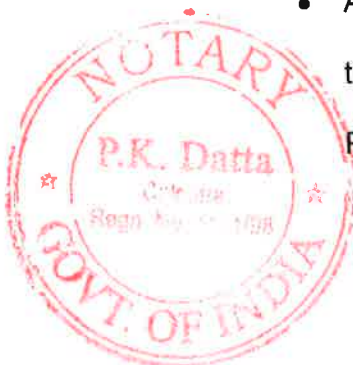
7.6. Bill payment options

7.6.1. Cash offices

- The Company operates 40 cash offices for collection of payment from its consumers against electricity bills and other bills e.g. new connection, additional security deposit due to extension of load, reconnection of supply, prepaid recharge voucher etc. The Company also provides advance payment options and has arranged for cheque drop boxes at different locations across the licensed area.
- Card swiping machines at 16 Cash Offices are available for Walk-in consumers. Additionally a number of Payment Kiosks are in place at various locations where the consumers can pay their electricity bills.

7.6.2. Digital payment options

- As a part of the mass-movement towards creating a Digital India the Company has been pursuing their initiatives to enhance Digital Payments relentlessly. As a part of such initiatives, the Company




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has been introducing easy and user-friendly methods of online bill payments, with an array of options such as Multiple Mobile Wallets along with payments using Debit/Credit Cards, Net Banking, ECS, NEFT/RTGS, Auto Pay, Bharat QR & UPI.

- Pre-paid consumers have the option of generating the recharge vouchers online from the website. Consumers can also make Advance payment from the website and App.
- The Company always believes in creating extra-ordinary User Experience and for this purpose have started accepting Online Payments against various types of Bills since more than a Decade back. The Company has also taken multiple initiatives in this area to improve user experience like adding of Payment Gateways and Key Wallets such as Paytm, PhonePe, Amazon Pay and many others.
- This has not only improved the overall user experience but has also increased the Online Payment Penetration over the years and the Company is presently one of the leading power utilities as far as count of Digital Payment is concerned. In this backdrop and with the greater Goal of improving the Online Payment penetration further up, the Company is continuously searching for new Online Payment Platform/Service for the Consumers and adding such options to their Digital Eco System.


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7.7. Consumer engagement initiatives

7.7.1. Registration / Data Collection Process

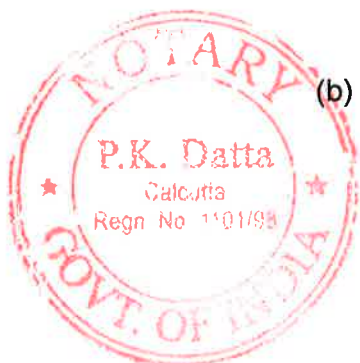
- The Company provides multiple options to the consumers to register their e-mail id / mobile number / WhatsApp number with the Company.

7.7.2. Customer Outreach through digital modes

(a) CESC Baithaki Adda

- The CESC Baithaki Adda is conducted every year featuring personalities from various walks of life. In view of the pandemic situation during the year under review, keeping safety precautions in mind, the adda was streamed virtually conforming to the new normal situation. Best wishes for the festive season were conveyed to the CESC customers at the beginning of the adda by the senior leadership team followed by discussion and sharing of anecdotes by the guests on celebrations during the festive season in Kolkata, illumination of the city and CESC's role during the festive season. The virtual event was streamed Live on a Cloud platform as well as on CESC's Facebook and Youtube pages.

(b) Awareness Programme on Electrical & Fire Safety




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- Electrical and Fire Safety Workshops were organized for Electricians, prior to Durga Puja and festive season. Electricians, Consumers and other Stakeholders were informed about the Workshop through a social media post across the various social media handles of CESC Limited, as well as through Emailer & SMS. The purpose of organizing the Electrical and Fire Safety Workshop was to spread safety awareness amidst everyone and to educate the Electricians about the best practices to reduce fire risks and the necessary measures to be taken in the event of a fire. Several electrical safety tips for the prevention of electrical hazards were also shared. Adjusting to the Pandemic situation, the Workshop was conducted on a virtual platform. Comprehensive and detailed Presentations on the topics were shared by Officers of the Company. The Event was broadcast through Facebook Live, Youtube Live and Cloud-based Webinar.
- A similar online workshop was conducted for HT Consumers. The purpose was to spread safety awareness amidst Consumers and to educate them about the best practices to reduce fire risks and the necessary measures to be taken in the event of a fire.
- Workshops are also conducted for LT Consumers to disseminate information regarding digital initiatives for Customers, sustainability initiatives to promote Electric Cooking and Electric Vehicles and discuss electrical safety Dos & Donts in general.




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(c) Initiatives to promote Customer-Centricity inside the Organisation

- Bandhan – Customer Centricity Workshops are arranged digitally covering Officers of the Regional Offices where different ideas on customer centricity are discussed and information on CESC's latest initiatives are shared.

7.7.3. Consumer Communication through Digital Channels

- Apart from sending various e-mails throughout the year, the Company also communicates different initiatives to the consumers through social networking sites such as Facebook, Twitter, Instagram, LinkedIn & Youtube. Apart from resolving general queries, this provides a good interactive platform to connect with the consumers on a regular basis and keeping abreast of the issues raised by the consumers.

7.8. Access to Useful Information

7.8.1. In adherence to the Regulations of the Hon'ble Commission, requisite information regarding new supply application, details of cash collection offices and their working hours, Grievance Redressal procedure etc. are displayed at important locations and on the Company's website.




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- 7.8.2. Additionally, with the gradual deployment of the various e-services, CESC's corporate website has become a 24 X 7 virtual office, where a consumer can avail a bouquet of web services from the comfort of his home / office. The website provides various information to the consumers including Helpline Numbers, safety tips, power consumption guide, guidelines to the prospective consumers, details of District Offices and cash offices etc. The facility of downloading copies of electricity bills from the website is available for all consumers.
- 7.8.3. Details of consumption / payment history and security deposit details for the current and last few Financial Years of consumers are available on the website. Additionally, a consumption charge calculator has been incorporated, which enables the consumers to have an indicative idea about their monthly consumption charge with all the necessary breakups. HT consumers can view daily real time consumption, payment / contractual load history, security deposit status etc. upon registering. There are provisions for lodging complaints and reporting power theft through the website as well.
- 7.8.4. **#LiveFreeBreatheFree:** As a responsible Corporate Citizen, CESC has embarked on an initiative of contributing towards making the city of Kolkata and Howrah a cleaner and greener place to live in. In its endeavour to adopt clean fuel for transportation, CESC has already set up Electric Vehicle Charging Stations at major locations in the city and



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introduced Electric 2 and 4 wheelers in its operations. The Company has been encouraging consumers to embrace Clean Technologies in their daily household usage like Electric Cooking, Air Purifiers, Star rated Air Conditioners (AC), Geysers and Refrigerators. In view of rising air pollution, Electric Vehicles and Electric Cooking appliances are a much cleaner, safer and affordable energy option and the Company has been trying to develop Customer awareness in this regard to contribute towards making a greener city. Detailed presentations on these topics have also been uploaded to the Company's website for public viewing and awareness. Information on these initiatives are shared in all Customer facing events and meets.

7.8.5. The corporate website also provides facilities such as Application for transferring the CESC connection of the deceased consumer to the spouse's name, Advance Payment Statement, Multiple Bill Payment option, Online application for new supply connections and name change, Online application for additional load requirement for the purpose of installing Air Conditioners, Application for reconnection of supply, Change of mailing address etc.

7.8.6. CESC has rolled out the E-corner initiative with all in one desktop installed at the bill payment ATP kiosks for the consumers to avail the e-services available through the website. An additional Online Support help desk is

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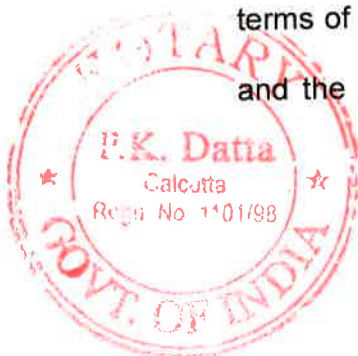
operational to provide guidance to the applicants/consumers for using the online services. Information on web services is promoted regularly as well.

7.8.7. The Company sends regular messages through electricity bills as well as mailers / e-mailers to the consumers to make them aware of safety, online payment, grievance redressal forum, Company's new initiatives etc. New consumers are provided with an informative welcome kit with information on a host of features. Consumer booklets and handbooks are made available to enhance general awareness at different customer touch points. Further, the Company participates in popular radio and TV shows for disseminating consumer related information.

7.8.8. Based on customer feedback, cheque drop-boxes were placed at multiple locations in the city to facilitate payments. A special instructional video on online payment is also there to aid customers. Besides, regular communications were sent through SMS, e-mail, newspaper and TV advertisements regarding services during lockdown.

8. Sourcing of Power

8.1. The licensed distribution business of the Company has been procuring power generated by the generating stations of its generation business in terms of the Orders issued by the Hon'ble Commission from time to time and the Minutes of Meeting dated 22 March 2007 signed between the



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generation and distribution divisions of the Company. The period under consideration posed significant challenges and adversities for the Company due to Covid-19 induced pandemic. Consumer demand was significantly suppressed during major parts of the year. Therefore, considering the best interest of the end consumers, Southern Generating Station was operated following appropriate economic dispatch in terms of merit order principle and associated technical issues. It is respectfully submitted that operation of conventional generating stations requires steady load and hence, frequent start-up – shut-down activities affect health and life of conventional plants. Keeping this in mind, operation of Southern Generating Station was undertaken to ensure continuous operation of the units for a minimum time period. Southern was generally not operated when prices in power exchanges were more favourable in the best interest of end consumers. Kindly refer to documents placed in the FPPCA Petition (Page 429, Volume 4).

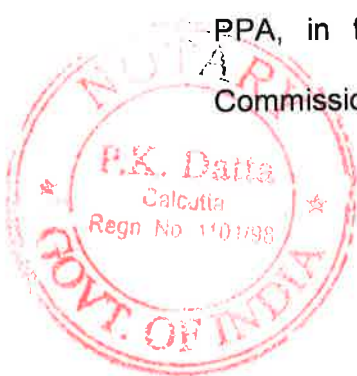
8.2. It is respectfully submitted that requisite metering infrastructure to comply with demonstration requirements were in place for the embedded generating stations of CESC since long. The practice of declaration of availability was also in place in terms of the applicable Regulations of the Hon'ble Commission. In the Order dated 30.07.2022 in Case No. B-36/ABT/9, the Hon'ble Commission held that, the availability submitted by CESC needs to be considered in absence of specific direction for

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demonstration of availability. Necessary availability details have been submitted in specified forms of this Petition. Arrangements for demonstration of availability in terms of the aforesaid Order are in place. Availability Certificates have also been issued by WBSLDC since July 2022.

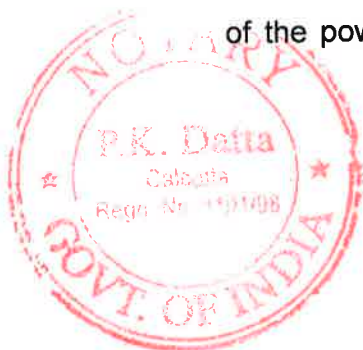
8.3. To meet the demands of the consumers of the Company, optimal utilisation of all available sources has been made (both long term and short term, from, inter alia, independent generators as well as the Traders, government portal and the Power Exchanges) following relative economics, in the best interest of the end consumers. As desired by the Hon'ble Commission, the Company has made arrangement for procurement of power from DEEP portal under Section 63 of the Electricity Act, 2003 on short term basis, under Regulation 7.5.1 of the Tariff Regulations. The Company has submitted the requisite documents to the Hon'ble Commission about the outcome of the competitive bidding process and the executed PPA. Power was procured from this source under Regulation 7.5.2 and 7.5.6 of the Tariff Regulations during this year. Necessary documents relating to the above have been placed in Page 104, Volume 1 of the FPPCA Petition. The Company obtains power on long term basis from own generating stations and HEL under an approved PPA, in terms of applicable Regulations / Orders of the Hon'ble Commission. The Company considered the cost, as certified by Auditor,




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based on the rates charged by HEL in terms of Order dated 27.11.2017 in Case No TP - 68 / 16-17 and 29.01.2016 in Case No. TP - 63 / 14 - 15 as Orders dated 08.09.2021 in Case No TP - 75 / 18 - 19 and the Order dated 20.04.2022 in Case No TP - 67 / 16 - 17 are under Appeal etc., as appropriate, adjusted for units received at CESC bus.

8.4. Power purchase cost also includes cost of short-term power purchase from supplemental sources (significant portion from energy exchanges) made in terms of the extant Regulations and applicable order to meet the requirement of power in CESC's licensed area. The Company has also procured power through banking which has been valued in terms of Regulation 5.15.2(iv) of the Tariff Regulations following the principle enunciated in the in APR-FPPCA Orders for 2015-16 (Case No. FPPCA - 79/16 -17 and APR – 58/ 16 – 17), for 2016-17 (Case No. FPPCA -85/16 -17 and APR – 65/ 17 – 18) and for 2017-18 (Case No. FPPCA -93/18 -19 and APR – 73/ 18 – 19), all dated 01.08.2022 (hereinafter referred to as **“APR-FPPCA Orders dated 01.08.2022”**). Energy swapped in against swapped out energy of earlier years (2019-20 and 2020-21) has been valued at the pooled power purchase cost of the respective years as per the principle adopted by the Hon'ble Commission in the APR-FPPCA Orders dated 01.08.2022. Accordingly, cost of swap-in energy, against energy swapped-out in 2019-20 and 2020-21 has been considered as part of the power purchase cost in terms of the APR-FPPCA Orders dated



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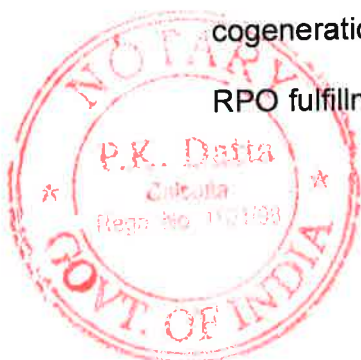
01.08.2022. Needless to mention that swap-out power cost was also evaluated and adjusted in line with the aforesaid APR-FPPCA Orders. It is humbly submitted that, parts of swap-out transactions undertaken during 2019-20 and 2020-21 have fully been settled in 2021-22 and there is no outstanding swap-out transaction at the end of 2021-22 to be settled in subsequent year/s. Utilisation of banking (swap-in / swap-out) mechanism, in terms of the relevant regulations, helped the Company to fulfil its statutory universal supply obligation in an optimum manner in the interest of the consumers. CESC undertook swap-in / swap-out transactions keeping in mind usual market trend with respect to prices in power exchange. Kindly refer to Page 432, Volume 4 of the FPPCA Petition. CESC has also procured power from power exchanges in terms of Regulation 7.4.4 of the Tariff Regulations. It is respectfully submitted that in terms of Regulation 7.5.5, no PPA is required for procurement through Power Exchange.

- 8.5. Injection/ generation from roof-top solar sources through net metering has also been considered, as directed by the Hon'ble Commission. CESC has also purchased solar and other non-solar renewable power through Green Term Ahead Market (G-TAM) and Green Day Ahead Market (G-DAM) to fulfil its RPO obligation. Through such mode of procurement, the Company has been able to achieve solar obligations completely and total obligations upto a significant extent.



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A Writ Petition [WPA No. 19019 of 2021 : M/s Bengal Energy Limited & Anr. Vs. The West Bengal Electricity Regulatory Commission & Ors.] filed before the High Court, Calcutta, challenging the vires of the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (First Amendment) Regulations, 2020 ("Amendment Regulations") was disposed of by a Judgment and Order delivered by the Hon'ble Justice Sabyasachi Bhattacharyya on 15.03.2022 wherein it was held that the said Amendment Regulations were ultra vires the Electricity Act, 2003 and the Tariff Policy, 2016. Subsequently, on the prayer of the Ld. Senior Advocate of the Hon'ble Commission, the operation of the Judgment and Order was stayed till 30.04.2022 to facilitate filing of an appeal. However, the operation of the Amendment Regulations was also stayed till 30.04.2022. By virtue of stay of operation of the Amendment Regulations, no further steps can be taken in terms thereof and consequently, as per legal opinion obtained by the Company, the unamended West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013 continue to have effect and be in force (without any amendment). Similar stay has been granted by the Appeal Court in a pending appeal against the said judgment and the same is subsisting. Accordingly, power procurement from cogeneration sources, irrespective of nature of fuel remains eligible for RPO fulfillment. In this context, it is respectfully submitted that availability




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of renewable energy in West Bengal is a serious constraint as the State is not blessed with renewable energy generation potential. Situation for the Company is even more problematic as it operates within an urban area with extremely low possibility of generation of electricity from renewable sources. CESC has procured power from cogeneration sources, to the extent available.

- 8.6. CESC has procured minuscule power from West Bengal State Electricity Distribution Company Limited (WBSEDCL) on emergency basis in terms of the relevant Order of the Hon'ble Commission and as per the approved rate of procurement. Sourcing of power from the available sources was optimised through the dispatch schedule, with due cognisance of technical and allied considerations as provided for under the relevant Regulations.
- 8.7. CESC suffers from the vagaries of an uneven demand profile inherent in the business of an urban distribution licensee where diurnal variations of demand are characteristically very high. In the year under review, the overall system demand was reduced due to the impact of Covid-19 imposed lockdown. While demand hovered around 1950 MW during summer peak, night lean demand slumps to around 900 MW during summer and was about 510 MW during winter. With such large variations in diurnal demand, relative economics is considered for deciding despatch schedule. Seasonal variations in demand add complexities to the problem. Improvement in capacity utilisation by optimally utilising the generation


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sources ensures benefits for the consumers through achievement of improved operational parameters. With such large variations in diurnal demand, the Company had to optimise the sources of power in consumer interest.

- 8.8. As has been already mentioned earlier, fulfilment of demand and RPO of CESC's licensed area would depend to a large extent on external power purchase, both from long term and short-term sources, as there is hardly any possibility of any new generation sources being set up at close proximity to the load centres. To facilitate such power procurement from sources outside the licensed area, creation / augmentation of network is a pre-requisite for wheeling into CESC system.
- 8.9. Injection / generation from roof-top solar sources through net metering has also been considered by CESC, as directed by the Hon'ble Commission. The Company has effected net metering arrangements with 587 consumers having roof-top Solar (PV) sources as on 31 March 2022. Ground mounted solar PV system of 15 MW capacity has become operational under net metering arrangement in CESC licensed area. The Company has advised all existing and upcoming roof-top consumers to capture generation data and submit the same to CESC. Considering 16.13% Capacity Utilisation Factor, in terms of the Order dated 25 October 2021 (Case No. SM-28/21-22), generation from the roof-top sources is 56 MU in 2021-22. In the year 2021-22, 7 MU energy was injected from

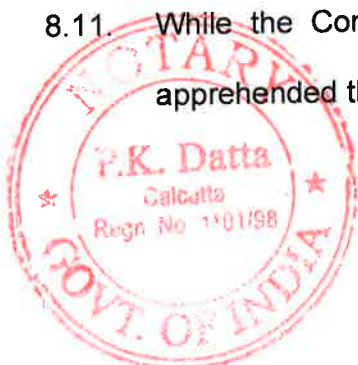



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rooftop solar sources into CESC system. It is expected that generation from roof-top solar sources will more or less fulfil the solar purchase requirement of the Company.

8.10. CESC requests all existing and upcoming roof-top consumers to capture generation data and submit the same to the Company. A suitable mechanism to record such generation data for onward submission to CESC is required towards fulfilment of its RPO compliance. Detailed submission of the Company regarding practical difficulties / challenges from roof-top solar is already in the records of the Hon'ble Commission. Connectivity agreements and net metering arrangements are in place as per provisions of the applicable Regulations of the Hon'ble Commission. For speedy facilitation, CESC has created a "Single-Point-of Contact" (SPOC) for all related queries and assistance. In order to assist the consumers, information relating to the key features of the net metering scheme, the eligibility criteria for setting up such sources and the contact details of the SPOC had been placed on the website of the Company (www.cesc.co.in). It is humbly submitted before the Hon'ble Commission that, the net metering arrangement affects power purchase cost and fixed cost recovery. Such mechanism also adversely impacts interest of small consumers.

8.11. While the Company is committed to comply with its obligation, it is apprehended that there is little possibility of extensive renewable sources

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coming up within the area of supply of urban distribution licensees like CESC (excepting roof-top solar sources). Though the state has potential in small-hydel and biomass generation, the areas of such projects are beyond the licensed area of the Company, and as such the distribution licensee(s) operating in such place(s) is / are at an advantageous position in tying up with such power for fulfilment of their own RPO. In order to meet RPO target, the Company may require to procure renewable power from outside the state due to lack of availability of such power within the state and the network capacity of the state and the Company may require enhancement for handling such power. The Company submits that due to inadequacy of renewable power in the state (less than 2% contribution from renewable sources), the licensees will be required to arrange such power from outside the state, as stated above, involving multiple levels of transaction charges and losses. Detailed studies are required to be undertaken to assess the impact of increased infirm power penetration on grid stability, conventional sources of generation, cost of grid integration and availability of adequate power transfer capability. The problem of non-availability of renewable / cogeneration power is even more pronounced for urban licensees like CESC. While it is appreciated that the Hon'ble Commission has implemented optional Green Tariff for the consumers, which will help in recovery of some portion of the additional cost to the Company, yet it is humbly submitted that, any Regulation / Order in this regard may kindly factor in the remaining negative impact on consumer

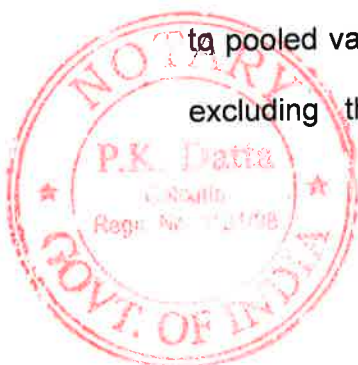



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tariff of the Company. Technology specific RPO targets is also a problem as in upcoming years the renewable energy capacity addition may change significantly. While the Company is committed to comply with its renewable purchase obligation, it apprehends that lack of availability in licensed area, difficulties in evacuation from outside this area and higher cost of such power might affect the consumers of the Company. In view of these factors, the Company humbly submits to the Hon'ble Commission to keep the RPO targets unchanged in terms of the unamended West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013.

8.12. Copies of Power Purchase Agreements / arrangements and sample copies of Connectivity Agreements entered into with consumers having roof-top solar sources are also collectively enclosed in the FPPCA Petition (Volume 5), which may kindly be considered as part of this Petition.

8.13. Energy sold to persons other than own consumers and licensee (i.e. exported energy) has been valued at the system variable cost (power purchase and own generation sources) following principles enunciated in the APR-FPPCA Orders dated 01.08.2022. The valuation of export (except swap-out), following Hon'ble Commission's determination in APR-FPPCA Orders dated 01.08.2022, has been furnished at marginal cost equivalent to pooled variable cost of power including own generation of CESC, but excluding the power from renewable, cogeneration, hydro, power

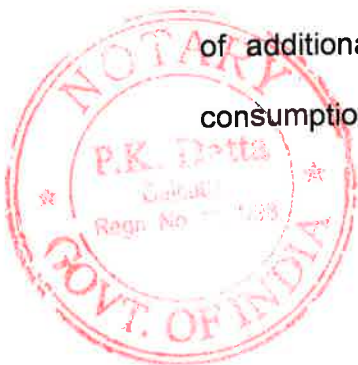

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exchange and through short term open access. Swapped out energy settled during the year has been valued at the cost equivalent to the cost of corresponding swapped in energy within the year.

- 8.14. Copies of Power Purchase Agreements / arrangements, details on swap-in / swap-out arrangements, procurement arrangements and Connectivity Agreements entered into with consumers having roof-top solar sources are also placed in the FPPCA Petition (Volume 5), which may kindly be considered as part of this Petition.

9. Environmental Responsibility

- 9.1. *"Compliance of environmental standards to reduce the health risks of citizen through less pollution from generation source"* has been accorded a special mention in the Regulations framed by the Hon'ble Commission. It is humbly submitted that the Company takes special care in achieving the same, as detailed hereinbefore in this Petition. However, in this context it is mentioned that introduction of 'zero' effluent discharge system causes rise in auxiliary consumption in all the stations where such installations take place. Also, implementation of the stricter pollution control norms notified by the Government of India will require installation of additional plant and equipment and consequent rise in auxiliary consumption. The effect of increased auxiliary energy consumption due to



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installation of such additional equipment is required to be factored in the station auxiliary consumption figures. Therefore, due allowances may kindly be made by the Hon'ble Commission to cover the same as well as other factors like progressive ageing and operation of generating stations.

- 9.2. Maintenance of generation at satisfactory levels of PLF will obviously entail removal of high volume of ash. Indian coal has high level of ash content. A judicious mix of coal used and a comprehensive approach towards ash management is thus required including resorting to washing of coal.
- 9.3. The Company takes due care to ensure that all the generating stations comply with the governing environmental standards. Special importance is accorded to monitor and control emissions and effluents. Emission levels at the Company's power plants are far better than the standards set by the West Bengal Pollution Control Board. The stations are equipped with extremely efficient electro static precipitators. Zero discharge system is in place in all the generating stations. MoEFCC guidelines have been amended to regulate the generating stations with stricter pollution control standards.
- 9.4. In recognition of its achievements, the generating stations of the Company have been merited with a number of awards and certificates as mentioned below, photographs for some of which are submitted with this Petition.




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9.5. Budge Budge Generating Station

- Budge Budge Generating Station received Gold Award in Global Safety Awards 2022 for outstanding achievement in Practicing Excellence Workplace Culture in Health and Safety-Evolving Safe work Practices in Operations
- Budge Budge Generating Station received Gold Award for “Occupational Health & Safety” in 2021 at 11th Exceed Occupational Health Safety and Security
- Budge Budge Generating Station was recognised with Gold Award for “Business Transformation Initiatives” at 9th National Excellence Practice Competition in 2021
- Budge Budge Generating Station received “Aqua Foundation’s Excellence Award 2021” under the category of “Water Management Private Sector”
- Budge Budge Generating Station was honoured with Gold Award – Power Generation at 3rd ICC National Occupational Health & Safety Awards 2021
- Budge Budge Generating Station adjudged as winner of Environment Excellence Awards 2021



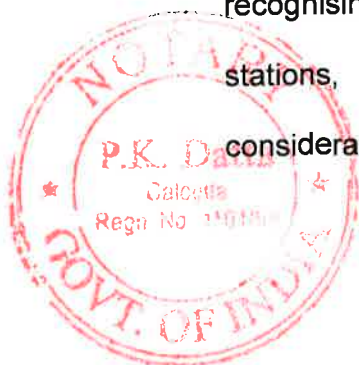

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9.6. Southern Generating Station

- Southern Generating Station received Silver Certificate in Power Generation Sector at 3rd ICC National Occupational Health & Safety Awards 2021
- Southern Generating Station was adjudged Runner Up in Large Enterprise Category at Environment Excellence Awards 2021

9.7. CESC House has been recertified as "LEED Platinum" in November 2020 by US Green Building Council under Version 4.1 Dynamic Arc Platform. Also, Chakmir substation and Park Circus distribution station received LEED Gold rating in 2018 and 2022 respectively.

9.8. As mentioned hereinabove, the Company is alive to its environmental responsibilities and takes due care to ensure that all its generating stations comply with the governing environmental standards. Special importance is accorded to monitor and control emissions and effluents. To contain ash levels at the generating stations, CESC has installed a suitable plant to partially wash its coal requirement. Environmental Statement reports for the year ending 31 March 2022 as submitted to the West Bengal Pollution Control Board, are enclosed in the Appendix (Page 405, Volume 4). Also recognising the stricter pollution control norms for coal fired generating stations, notified by the MoEFCC, Government of India, active consideration is being given, as detailed in the FGD Petition, for issues

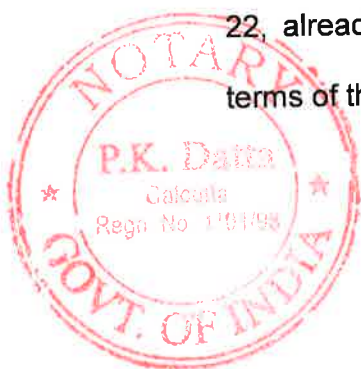


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relating to the necessary modifications in the infrastructure and installations of the existing generating stations. This also entails availability of land and other resource requirements. This will require substantial capital expenditure. As directed, the Company shall keep the Hon'ble Commission apprised of any development in this regard at material point of time.

10. Benefit Sharing with consumers due to Improved Performance

- 10.1. The present Petition proposes to share significant benefits with the consumers in terms of the directions and / or the Regulations of the Hon'ble Commission.
- 10.2. The Company proposes to pass on benefits for other businesses undertaken by the Company. In this context, it is submitted, in terms of Tariff Regulations of the Hon'ble Commission, disallowance for excess distribution loss over the norms in distribution loss will be limited to Return on Equity and DSM charges receivable, to ensure realistic achievement of targets. However, in case of the Company, benefits commensurate with performance on distribution loss are proposed to be passed to the consumers through this Petition and through the FPPCA Petition for 2021-22, already submitted before the Hon'ble Commission appropriately in terms of the Regulations.




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10.3. In summary, the Company, due to its efficient operations and initiatives on various innovative activities has ensured considerable benefits for its consumers.

11. General Form and Structure of the Petition

11.1. In terms of the Tariff Regulations, the applicable formats are being submitted to the best understanding of the Company. Additional notes, data and reconciliation, wherever required for clarity, in conformity with the Regulations, have been furnished. CESC undertakes to make available such other or further information and documents as the Hon'ble Commission may consider appropriate and make a requisition therefor. The Company would also like to furnish additional information / documents as may be necessary for disposal of this application, if required.

11.2. The Attachments, Annexes and the Appendix furnished herewith form a part of this Petition for Annual Performance Review.

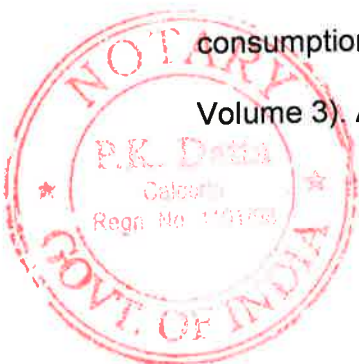
11.3. In order to retain appropriate focus, figures have been rounded off for final presentation in certain cases. All compliance requirements, as understood and interpreted, have been met to the extent possible. In appropriate cases, items in applicable forms of submissions have been regrouped for clearer presentations. The Hon'ble Commission may be pleased to refer to the Appendix for the relevant statements and requisite compliance



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reports. Detailed status reports on compliances are being placed with this Petition. Suitable Auditors' Reports / Certificates as well as reconciliations have been furnished to bring out the details pertaining to the generation business and licensed distribution business.

- 11.4. As required under the Tariff Regulations, the Company is providing the related information for Annual Performance Review as per the applicable formats. This information is provided in Annex 1 of this Petition.
- 11.5. The statutory audited data, embodied in the Audited Annual Accounts of the Company, being the audited annual accounts of the Company for the year 2021-22, under the Companies Act, 2013 are enclosed in "Annex C1" (Volume 3, Page 5).
- 11.6. As indicated in this Petition, benefits have been proposed to be passed on to the consumers duly in accordance with the Tariff Regulations. The Auditors' Report and Certificate on earnings from sale of electricity to persons other than own consumers and West Bengal State Electricity Distribution Company Limited (WBSEDCL) in 2021-22, is placed in "Annex C2" (Page 249, Volume 3). The Company has also furnished Auditors' Report and Certificate on purchase / sale to own consumers, WBSEDCL and persons other than own consumers and WBSEDCL and consumption in own premises for 2021-22 in "Annex C3" (Page 253, Volume 3). Auditors' certificate relating to the number of consumers as on




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31 March 2022, electricity consumption during 2021-22, the total connected load as on 31 March 2022 and revenue earned during 2021-22 under each tariff category has been placed in "**Annex C4**" (Page 257, Volume 3).

11.7. Variable cost adjustment has been proposed in terms of the FPPCA Petition already submitted before the Hon'ble Commission under Regulation 2.8.7.2 of the Tariff Regulations. For such cost adjustment, Auditors' certificates and other details on Fuel and Power Purchase have been furnished in terms of Regulation 2.8.7 read with Schedule-7A of the Tariff Regulations along with the FPPCA Petition and hence are not repeated here.

12. Treatment of Specific Items

12.1. In accordance with the directions of the Hon'ble Commission, the Auditors' certificate on break-up of expenditure between the distribution and generation businesses of CESC is placed in "**Annex C5**" of the APR Petition (Page 258, Volume 3).

12.2. The Company humbly submits that the capital expenditure is incurred mainly on account of strengthening of the distribution network/ umbrella network, assuring reliability of supply through service innovation, implementation of prudent maintenance management system and




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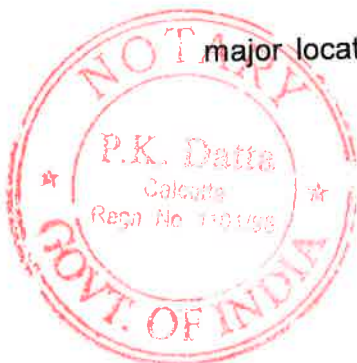
ensuring better consumer service. The Company, through proper planning, deferment and optimisation, was able to contain capital expenditure for the year at Rs. 523 crores. The Perspective Plan submitted before the Hon'ble Commission with the multi-year tariff application for the seventh control period has been broadly followed with necessary deferment and optimisation. Necessary investments are being made to maintain and improve quality and reliability of services for CESC's consumers. It is also submitted that getting possession of suitable plots of land and RoW in a highly developed urban area is a serious issue. Though the Company makes every feasible effort to obtain land and RoW to adhere to its plan, the situation is often beyond its control and therefore in some cases, there are some modifications at a later date to accommodate exigencies and uncertainties arising out of non-availability of suitable land / RoW.

12.3. In the MYT Order, the Hon'ble Commission did not consider any asset addition in the generation function of the Company and reduced the amount of asset addition for distribution function based on Compounded Annual Growth Rate ("CAGR") trend of distribution asset addition. Such methodology of determination of asset base resulted into reduction of Interest on loan, Depreciation and Return on Equity. It is respectfully submitted that the CAGR method for asset addition is not an appropriate method as the asset addition depends on load growth and future network


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development. Thus, asset addition is required to be evaluated through prudence check of the necessity of such addition; details of such addition and necessity having been submitted in this Petition and being in line with addition program as submitted in the MYT Petition for the seventh control period. In generation function, capex is incurred to meet various requirements under different capex programs such as, for replacement / refurbishment of boiler feed pump, cooling towers etc., for maintenance related jobs on turbine and other components, for ensuring safety and security, for adoption of new technologies and also to meet environmental requirements, which are not similar in nature. Moreover, it is humbly submitted that CAGR approach is applicable when there are similar items having no inter-se variations. In distribution function, when gamut of expenditure encompasses such as for EHV lines to metering assets with relative emphasis changing every year based on consumer mix, capacity of evacuation, coverage of reading, necessity of capacity addition and maintenance, case specific determination rather than CAGR approach is applicable. It is humbly submitted that the claims under such heads based on actual audited figures in this Petition are considered favorably by the Hon'ble Commission.

- 12.4. As an endeavour towards contributing to cleaner environment, the Company has set up few Electric Vehicle (EV) charging stations at some major locations within its licenced area. The Hon'ble Commission may

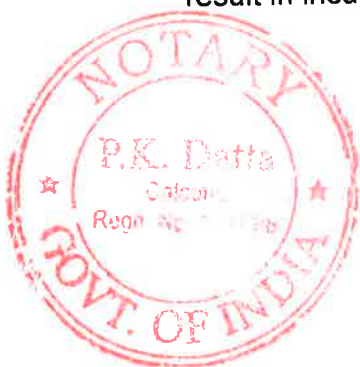
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acknowledge such initiative and consider providing additional capital expenditure, if required, towards development of such infrastructure.

12.5. Operation and Maintenance Expenses

12.5.1. Regulated licensees are statutorily required to provide critical services, often under unfavourable circumstances in this country. They need to be able to finance their on-going operations including essential repairs and maintenance. It is humbly submitted that the Company practices cost control and economy to the best of its endeavours and abilities. Asset base of CESC includes ageing plant and equipment which need regular and proper upkeep following an appropriate maintenance schedule so as to keep them in good operating condition. The Company follows superior operation and maintenance practices across its various functions in generation and distribution. The licensed area has limited road space. Majority of CESC's distribution network is underground. Micro-tunnelling as well as massive excavation by other service utilities / civic bodies / entities for drainage and sewage revamping activities etc. randomly undertaken in and around the city and fringes, frequently damages underground network of the Company. While this issue has been reported before the appropriate authorities, damages to the network invariably result in incurrence of added repairs and maintenance costs.

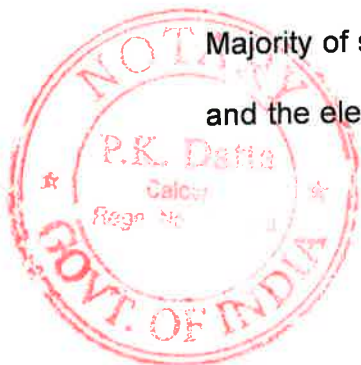



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12.5.2. CESC has implemented condition based monitoring of plant and equipment. Instead of carrying out time based maintenance program, under the present regime, the health of plant and equipment are checked periodically with modern and state-of-the-art devices and maintenance is carried out on the basis of the results of such health check-up. In-house developed asset management software 'DREAMS' is used for monitoring health, failure history and maintenance details of operational assets. Thermographic and ultrasonic detection of hot-spots are being conducted to take up corrective actions. This has enabled reduction in faults / breakdown of plant and equipment. Safety standards specified by the Central Electricity Authority in its Regulations are being adhered to. The documents are made available to the O&M engineers and associated persons. At present, the documents are available in the in-house developed MIS named DREAMS. The parameters and the contents mentioned in the documentation are sometimes customised depending upon the actual situation.

12.5.3. It may be worth mentioning that peak power requirement is contributed by undeclared installation and use of power guzzling equipment like air-conditioners, geysers, washing machines and other white goods despite CESC's sustained campaign on voluntary declaration for additional load.

Majority of such equipment are being used during peak hours of the day and the electricity drawn by the consumers is generally peak-coinciding.

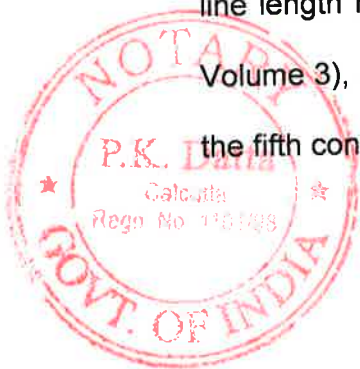
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Appropriate TOD tariff for such residential segments merit consideration by the Hon'ble Commission. Additional electricity demand from such consumers puts considerable pressure on CESC's distribution equipment viz. distribution transformers, cables, services, meters etc. and sometimes leads to supply failure due to overloading, which calls for additional O&M expenses.

12.5.4. Pilferage of electricity also leads to overloading of plant and equipment beyond the optimum operating capacities. Therefore, the same get damaged and need special repair and maintenance to avoid undue trip / failure. To meet its statutory supply obligations and to ensure quality supply, as well as to maintain availability of the generating stations, it is necessary for the licensee to carry out appropriate repairs and maintenance. The Company submits that the same is done following prudent utility practices to protect the interest of the consumers. Such expenses may kindly be allowed by the Hon'ble Commission.

12.5.5. CESC has been setting up adequate infrastructure to cater to ever increasing consumer demand. Auditors' certificate on total number of transformers and transformation capacity has been placed in "Annex C6" of this Petition (Page 259, Volume 3) and voltage level-wise distribution line length has been placed in "Annex C7" of this Petition (Page 260, Volume 3), as directed by the Hon'ble Commission in the MYT Order for the fifth control period.




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12.6. Employee Cost

12.6.1. The Company could bring down its employee strength, in spite of significant surge in the Company's activity level. In terms of direction of the Hon'ble Commission, necessary Auditors' Certificates on the employees' details has been placed in "Annex C8" (Page 261, Volume 3) and "Annex C9" (Page 262, Volume 3). The employee cost contains the effect of enhanced activity level, inflationary push and effect of market corrections. Consistent efforts are undertaken by the Company to retain critical talent in this highly competitive industry.

12.6.2. It was the duty of the Company to ensure uninterrupted power supply to the essential establishments (hospitals, administrative offices, etc.) during the covid 19 pandemic and therefore it was incumbent of the Company to ensure full safety protocol of its employees and establishments. Medical expenses relating to Covid-19 are not specifically included in this Petition, other than hospitalisation and such expenses will be claimed in APR Petition of subsequent year, taking into consideration the expenses for first and second wave and employee vaccination together.

12.6.3. CESC has been discharging statutory obligation of maintaining various terminal benefit funds. Auditors' Certificate with respect to such terminal benefit funds have been placed in "Annex C10" (Page 263, Volume 3).




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12.6.4. It is humbly submitted that, in terms of the Tariff Regulations, employee cost is an uncontrollable item and therefore any variation in cost is allowable through tariff. However, for generation function, number of employees (i.e. Man / MW ratio) is normative, which fixes the number of employees (own plus contracted) of a generating station for the purpose of tariff determination. When employee cost is uncontrollable but based on a normative number for generation, it emanates that for the generating stations, the Company is entitled to full cost of employees worked out on the basis of the normative number of personnel. Thus, the employee number has been claimed on normative basis with both own employees and contracted manpower in terms of Regulation 2.5.5, Table 2.5.5-1, Schedule-9A, Item A., read with Notes x), xi) under Item A, Note iv) under Item B, and other relevant Regulations of the Hon'ble Commission. The details of manpower cost for own employees and contractual manpower has been furnished in Form 1.17(h) of Annex 1 (Page 74, Volume 2 of this Petition). Relevant Auditors' Certificate on contractual manpower has been placed as "Annex C11" (Page 264, Volume 3) in this Petition.

12.7. Interest

12.7.1. During the year 2021-22, due to various global as well as domestic factors, specially due to pandemic, availability of capital and pricing thereof became extremely stringent, especially in the power sector. Certificates confirming the above rates are annexed to the APR Petition,




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(Page 250, Volume 5). Moreover, liquidity position and credit availability in power sector has deteriorated significantly. However, through considerable negotiations, the Company could manage to keep its interest rates well below the norm of "1 year SBI MCLR plus additional margin". The Company made necessary borrowings keeping in view the applicable Debt-Equity Ratio as per the Regulations for capital expenditure.

12.7.2. Through proper planning, deferment and optimisation, the Company could contain capital expenditure at Rs. 523 crores. Actual interest as incurred on loans has been prayed for.

12.7.3. Working Capital requirement has been furnished in the Petition and interest thereon has been prayed for on the basis of the actual contractual rate at mid year and substantially lower than the norm of "1 year SBI MCLR plus additional margin", confirmatory certificate on SBI MCLR is placed in this Petition (Page 18, Volume 5).

12.8. Temporary Accommodation

12.8.1. Necessity of funds by way of temporary accommodation partially arose due to pendency of finalisation of APR Orders for 2018-19, 2019-20 and 2020-21. Also, the shortfall arising for the current year 2021-22 necessitated temporary utilisation of short term borrowings and also funding requirements arising due to external factors which are being



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covered in terms of the Hon'ble Commission's Order dated 06.05.2020 in Case No. SM-22/ 20-21. Accordingly, Interest on such temporary accommodation has been incurred and prayed for. Interest has been arrived at considering the actual contractual rate on the average balance, which is significantly lower than the norm of "1 year SBI MCLR plus additional margin". Additionally, the Company has also separately claimed Interest on Temporary Accommodation availed for funding of Additional Levy and related holding cost, paid in respect of Coal Mine, which is under the consideration of APTEL. Computation of interest on such temporary accommodation has been shown in Form 1.17(a) of Annex 1, in terms of the applicable Regulations. Moreover, it is humbly submitted that, the Company has preferred appeal before the Hon'ble APTEL in the APR-FPPCA matters for 2014-15 to 2017-18, Multi Year Tariff Order for the sixth control period (2018-19 and 2019-20) dated 03.02.2022, the MYT Order and additional levy matter. The Company has prayed interest on temporary accommodation on the amounts under appeal.

12.9. Financing Charges

12.9.1. The Company has claimed Rs. 1553 lakhs as finance charges for 2021-22 in this Petition. In the MYT Order the Hon'ble Commission has disallowed charges relating to cash management services and directed to consider it with O&M expenses. In this context it is humbly submitted that,


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Cash/ Cheque Pick up charges are an integral part of Banking Services all across the Country and accordingly included in 'Other Finance Charges'. It forms a part of fund clearing charges and is similar in nature of online collection charges. Thus, being in the nature of bank charges, it is included in the finance charges. Also, following Hon'ble Commission's advice, it has been the endeavour of the Company to be in continuous pursuit to control the cost of finances, benefit of which entirely goes to the consumers. Accordingly, financing charge is not always directly related to capital expenditure / loan drawal alone and involve various other factors including, loan facilitation etc. as detailed in Form 1.17 (c) of this Petition. Therefore, it is prayed before the Hon'ble Commission that the actual amount claimed in this Petition is considered allowable. Auditors' Certificate for finance charges for the year 2021-22, as directed by the Hon'ble Commission is enclosed as "**Annex C12**" (Page 265, Volume 3).

12.10. Fuel Cost and Quality

12.10.1. In terms of definition as provided in Regulation 1.2.1 (vi) read with 5.8.2 of Tariff Regulations, fuel cost comprises cost of basic content as well as associated transportation and handling / other incidental charge as applicable. Over past few years, price of coal has been increased by modifying different price components of coal. Apart from changing the basic rates, the monopoly supplier and transporter caused to increase the cost of coal, the primary fuel for power generation, through introduction /




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imposition of new charges, changing various components of coal price / freight and by enforcing new constraints / conditions etc. This price rise was further accentuated by imposition of taxes and levies. Relevant details have been furnished in the FPPCA Petition and are in the records of the Hon'ble Commission. The same are not repeated herein to avoid prolixity.

12.10.2. The Hon'ble Commission is kindly aware that multiple agencies are involved in the coal supply chain – the Coal India Limited (“CIL”) and its subsidiaries, sampling agencies, Indian Railways and various other government agencies to name a few. The Company, in the interest of the end consumers and to ensure timely delivery of adequate quantity of coal, needs to maintain close liaising with these offices / agencies. Such activities are undertaken by Coal Handling Agents on behalf of the Company and the associated costs have been shown as “Handling, Sampling and such other similar Charges” in the applicable format. It is worthwhile to mention that in terms of the Tariff Regulations, handling, sampling and such other similar charges are a part of landed cost of fuel in terms of Regulation 1.2.1 (iv). Handling agents are normally identified through competitive bidding. Relevant supporting documents in adherence to the directives of the Hon'ble Commission in this respect, to the extent feasible and practicable have already been submitted to the Hon'ble Commission vide the FPPCA Petition. As already submitted, for




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linkage and e-auction rail mode, loading of coal on railway wagons is on the scope of CIL and its subsidiaries and the Handling agents have no wherewithal to control overloading / underloading of wagons and other related matters.

Coal handling agents provide host of services, which, *inter-alia*, includes co-ordination with supplier (ECL, BCCL, CCL or MCL as applicable) for ensuring smooth and continuous flow of rakes from sidings as per advice of the Company, supervision of loading, ensuring proper quality of coal, arrangement of sufficient tippers / trucks and manpower for supervision to ensure regular and smooth dispatches of coal supplies from colliery, release of delivery order, rake allotment, rake offering, indent placement, rake loading etc.

12.10.3. For captive coal, deductions of mining cost have been made in terms of the APR-FPPCA Orders dated 01.08.2022 and ultimately the price charged to the end consumers are in terms of the agreement with the Nominated Authority. Needless to mention that, all levies / royalties / cess and other charges on coal are allowable in terms of various directions / notifications of competent authorities as also the APR-FPPCA Orders dated 01.08.2022. It is respectfully submitted that the Company, under applicable statutes, needs to pay GST to agencies engaged for mining, sizing, transportation, evacuation facility charge, washing, security, road repair etc. CESC was also required to pay GST at applicable rate on




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Reverse Charge Basis on Fixed Rate, Additional Premium, Royalty etc. A detailed note in this regard has already been placed in the Appendix in Page 397 to 428 of Volume 2 of the FPPCA Petition. Relevant Auditor's certificates have been placed as "Annex C13" (Pages 266, Volume 3) and "Annex C14" (Pages 267, Volume 3) in this Petition. Relevant documents, relevant parameters relating to coal as per applicable forms of Tariff Regulations and price for captive coal have been placed in Pages 116 to 138 of Volume 1 of the FPPCA Petition. Various requirements of the Regulations of the Hon'ble Commission have been adhered to in the coal procurement process including price therefor. It is respectfully submitted that duties, levies, cess etc. have been considered in terms of applicable statutes to arrive at cost of coal, duly certified by Auditors. Details of coal procurement and methodology for the same are furnished in the FPPCA Petition (Pages 337 to 338, Volume 4).

12.10.4. The heat value of coal has been considered in terms of the Gross Calorific Value of coal on "as received" basis less 120 kCal/ Kg on account of stacking loss as per the Regulation 5.8.4 (1) and 1.2.1(lxa) of the Tariff Regulations. Copies of consignment wise quality certification by a CIL approved third-party agency for coal procured in 2021-22, have been furnished in the FPPCA Petition (Pages 4 to 115, Volume 4). An Auditors' Certificate, certifying grade-wise "GCV as received" for the year 2021-22




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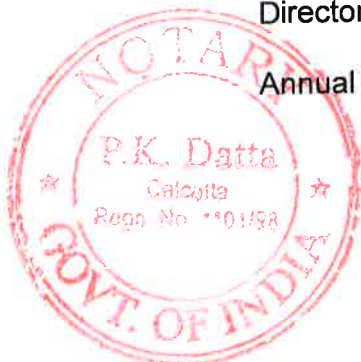
has been placed in Pages 171 to 174, Annex C4, Volume 1 of the FPPCA Petition.

12.10.5. As directed by the Hon'ble Commission in the MYT Order, a report on GCV measurement of coal has been submitted in Page 254 of Volume 5 of this Petition. In this context, it is respectfully submitted that actual measurement by third party testing agency have already been in place since long. Such testing agency is selected from the list of CIL-empaneled testing agencies. The aforesaid list is placed in the Appendix (Page 1 of Volume 4 of the FPPCA Petition). Such testing arrangements were in vogue for long period (i.e., before FY 2020-21). Requisite documents, in terms of applicable regulations, have already been placed before the Hon'ble Commission from time to time.

12.10.6. Finally, the coal cost has been arrived at in deference to the extant regulations of the Hon'ble Commission which lays down the principle and methodology for furnishing details of coal in specified formats, both relating to quantity and quality, recognising aspects of significant heat loss at various stages as dealt hereinbefore.

12.11. **Bad Debt**

12.11.1. Bad Debts for the year 2021-22 have been duly approved by the Board of Directors in its meeting held on 13 May 2022, through approval of the Annual Accounts of the Company. Relevant Auditors' Certificate is


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furnished in "**Annex C5**" (Page 258, Volume 3). The figure represents amount actually written off. In the MYT Order, the Hon'ble Commission has not allowed any amount as Bad debt and allowance of the same has been deferred at the APR stage on the basis of audited numbers. It is humbly prayed before the Hon'ble Commission that the actual amount of Bad Debt certified by auditors, as prayed for in this Petition, may be allowed accordingly.

12.12. Income Tax

12.12.1. Auditors' Report and Certificate for the actual payments on account of Income Tax for financial year 2020-21 is submitted in "**Annex C16**" (Page 269, Volume 3) and the amount is prayed for accordingly. The Company has received the Income Tax Order for the Assessment Year 2020-21 (Financial Year 2019-20) with a demand, which has been challenged by the Company in appropriate forum, the outcome of which is still pending and the Order has been placed through APR Petition for 2020-21. The Company's Income Tax Scrutiny Assessment for the financial year 2018-19 has not been taken up. Any Claims arising in respect of Income Tax, relating to the above year will be included in subsequent APR Petitions.

12.13. Reserve for Unforeseen Exigencies

12.13.1. The Company has not appropriated / claimed any sum towards reserve for unforeseen exigencies as in the Tariff Order for the year under review




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such appropriation was not allowed. Interest of Rs. 18.07 crores has been ploughed back as directed. The Auditors' Report and Certificate in this respect is furnished in "Annex C17" (Page 273, Volume 3).

12.14. Performance Based Incentive

12.14.1. The essential characteristic of the Regulations framed by the Hon'ble Commission is to usher in a performance based system with scope for incentivisation as also to provide a reasonable degree of regulatory certainty.

12.14.2. "*The principles rewarding efficiency in performance*" has been recognised in the Electricity Act, 2003 as one of the major guiding factors for determination of tariff. The relevant Regulations of the Hon'ble Commission also echo the same. The Hon'ble Commission has adopted the principle enshrined in the National Electricity Policy:

"5.8.5. All efforts will have to be made to improve the efficiency of operations in all the segments of the industry. Suitable performance norms of operations together with incentives and disincentives will need to be evolved along with appropriate arrangement for sharing the gains of efficient operations with the consumers. This will ensure protection of consumers' interests on the one hand and provide motivation for improving the efficiency of operations on the other."




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Extracted from the National Electricity Policy issued under Section 3 of the Electricity, Act 2003.

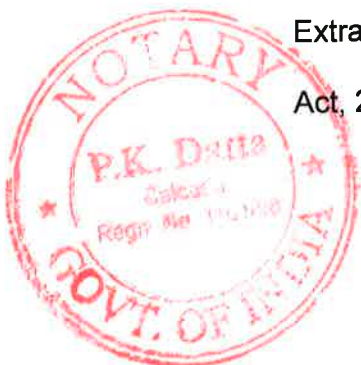
12.14.3. The Tariff Policy issued under the aegis of the Electricity Act, 2003, also echoes the same principles.

"5.0 GENERAL APPROACH TO TARIFF

5.11 f) Operating Norms

Suitable performance norms of operations together with incentives and dis-incentives would need to be evolved along with appropriate arrangement for sharing the gains of efficient operations with the consumers. Except for the cases referred to in para 5.11 (h)(2), the operating parameters in tariffs should be at "normative levels" only and not at "lower of normative and actuals". This is essential to encourage better operating performance. The norms should be efficient, relatable to past performance, capable of achievement and progressively reflecting increased efficiencies and may also take into consideration the latest technological advancements, fuel, vintage of equipment, nature of operations, level of service to be provided to consumers etc. Continued and proven inefficiency must be controlled and penalized."

Extracted from the Tariff Policy issued under Section 3 of the Electricity Act, 2003.

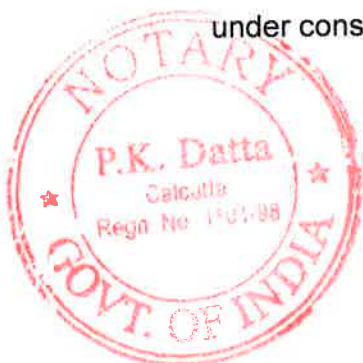


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CESC LIMITED

12.14.4. The Auditors' Report and Certificate on details of generation for the year 2021-22, including Plant Load Factor achieved by CESC is placed in "Annex C18" (Page 277, Volume 3). Auditors' Report and Certificates on consumption details of coal and oil for the year 2021-22, are placed in "Annex C19" (Page 281, Volume 3). Relevant figures have been furnished in terms of Schedule-10 of the Tariff Regulations and the APR-FPPCA Orders dated 01.08.2022.

12.15. Equity Base

12.15.1. In terms of the Tariff Regulations and previous Orders, the closing equity base of 2020-21 as per the APR Petition of 2020-21 has been considered as the opening equity base for 2021-22 with appropriate functional allocation. The closing equity base for 2021-22 has been obtained from the opening equity base of 2021-22, considering additions during 2021-22. Return has been claimed on the equity base at the rates provided in the Tariff Regulations. In the MYT Order, the Hon'ble Commission has deferred addition to the asset base and as a result there was consequential reduction in the return on equity. It is humbly submitted that in this Petition the amount of return on equity has been computed in terms of the applicable regulations of the Hon'ble Commission based on the audited figures and hence such such amount may be allowed for the year under consideration.




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12.16. Security Deposit

12.16.1. Security Deposit is accepted from the consumers in terms of the applicable Regulations of the Hon'ble Commission. Entire interest payment has been appropriately settled. The Auditors' Report and Certificate is provided in "Annex C20" (Page 285, Volume 3) on Interest on Security Deposit maintained by the consumers for 2021-22. Interest on Security Deposit as indicated in the audited accounts (Note 38) in Annex C1 has been fully settled. A report on Security Deposit is placed in the Appendix (Page 395, Volume 4).

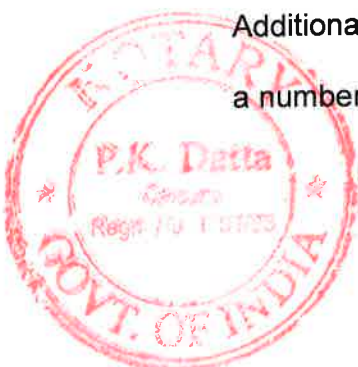
12.17. Expenses pertaining to the licensed business and the generation business supplying power to the licensed business, as permitted under the relevant Regulations, have only been prayed for through this Petition with specific exclusions of expenses on account of employee cost, legal and other overheads not directly attributable to the licensed area/ generation business, to the best of knowledge and information. As directed, a report in this respect is enclosed in the Appendix (Page 20, Volume 4), confirming that the expenses pertaining to the Company's licensed business/ generation business for licensed area have only been considered in this Petition.




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13. Compliance with the Hon'ble Commission's Directives

- 13.1. The Hon'ble Commission has issued directives through Tariff Orders of different years and applicable Regulations from time to time. An item-wise summarised status report on the directives of the Hon'ble Commission is enclosed in the Appendix (Page 2, Volume 4).
- 13.2. Apart from complying with the above directives CESC has published newspaper advertisements for application of new connection, customer grievance redressal information. The Company has submitted annual report on standards of performance relating to consumer services to Hon'ble Commission in terms of applicable regulations. Copies are placed in Appendix (Page 133, Volume 5).
- 13.3. As directed by the Hon'ble Commission, Auditors' Certificates with respect to demurrage details for 2021-22, break-up of legal expenses as included in profit and loss statement and relating to penalty / fine are furnished in "Annex C21" (Page 289, Volume 3), "Annex C22" (Page 290, Volume 3) and "Annex C23" (Page 291, Volume 3) respectively. The Company has preferred Appeals against the APR-FPPCA Orders for 2014-15 to 2017-18, Tariff Order dated 03.02.2022 in Case No : TP-77/ 18-19, Tariff Order dated 01.08.2022 in Case No : TP-96/ 20-21 and also against Order on Additional Levy before the Hon'ble Appellate Tribunal for Electricity. Also, a number of Petitions are pending before the Hon'ble Commission.




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14. General

- 14.1. In accordance with the Regulations of the Hon'ble Commission, supporting materials and relevant information have been furnished in specified forms in the respective Annexes, to the extent applicable, along with the Appendix, which form part of this Petition. Power Purchase Agreements have already been furnished in Volume 5 of FPPCA Petition, which may kindly be considered as part of this Petition. Detailed submissions on both revenue and capital expenditure, as well as other relevant issues, have been made through the Annexes, which are not repeated herein. The Company undertakes to make available such other or further information, particulars and documents as the Hon'ble Commission may consider appropriate and make a requisition thereof to the Company.
- 14.2. Since accumulation of arrears adversely affects the consumers and the licensee, the Company prays for liquidation of the recoverable amount, as furnished in this Petition, in entirety within a twelve-month period, in terms of the Regulations of the Hon'ble Commission.
- 14.3. Applicable formats have been submitted for appropriate year with additional notes, data and reconciliations, wherever required for clarity, in conformity with the Regulations of the Hon'ble Commission. In order to retain appropriate focus, figures have been rounded off for final presentation in certain cases. All compliance requirements under the




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Regulations, as humbly understood and interpreted, have been met to the extent possible. The Hon'ble Commission may be pleased to refer to the Appendix for the relevant statements and compliance reports as required.

14.4. In terms of the applicable Regulations, Gist of this Annual Performance Review Petition is enclosed with this Petition for approval of the Hon'ble Commission before notification.

14.5. The Government of West Bengal (GoWB) has announced a new scheme named "Hasir Alo" in March 2020 and the said scheme has been implemented in terms of the Order of the Hon'ble Commission dated 31 March 2020 in Case No. A-6/14/G.0. Under the scheme, full subsidy (including meter rent) is to be provided to the "Lifeline Domestic" consumers with connected load upto 0.3 kW having quarterly consumption of 75 Units or monthly consumption of 25 Units. The scheme is effective from 1 April 2020 on prevailing tariff till further Order of the GoWB. The resultant shortfall of the licensee shall be compensated upfront by the GoWB in terms of Section 65 of the Electricity Act, 2003. Necessary auditors' certificate furnished in "**Annex C26**" (Page 294, Volume 3) and relevant communications/ Orders have been placed in the Appendix (Page 156, Volume 5).

14.6. It is brought to kind attention of Hon'ble Commission that APR Petitions for 2018-19, 2019-20, 2020-21 and FPPCA Petitions for 2018-19, 2019-20,




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2020-21 and 2021-22 are pending before the Hon'ble Commission, *inter alia*, necessitating creation of temporary accommodation. Review Petition for Multi Year Tariff Order dated 03.02.2022 is also pending. Orders issued by the Hon'ble Commission in the past are yet to be fully recovered through tariff and any future Order allowing any sum recoverable by the Company, may be suitably considered in determination of the tariff along with the net aggregate revenue requirement prayed for through this Petition.

15. Prayers

15.1. It is most respectfully prayed that the Hon'ble Commission may be pleased to :

- (a) Confirm and approve the amount contained in Annex 1 as the allowable amount towards Annual Performance Review for the financial year 2021-22;
- (b) Adjust the differential amounts arrived at through this Annual Performance Review, with the Aggregate Revenue Requirement of the subsequent year or allow separate recovery from the consumers, as considered appropriate by the Hon'ble Commission;

A blue ink signature of the Company Secretary.

COMPANY SECRETARY
CESC LIMITED

- (c) Allow additional amounts to the Company for any increase in power purchase cost beyond what has been considered in the Petition, if applicable;
- (d) Early disposal of the Petition as the business of the Hon'ble Commission would permit;
- (e) Such further Order or Orders as the Hon'ble Commission may deem fit and proper;

AND THE PETITIONER AS IN DUTY BOUND SHALL EVER PRAY



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পশ্চিমবঙ্গ পশ্চিম বঙ্গাল WEST BENGAL

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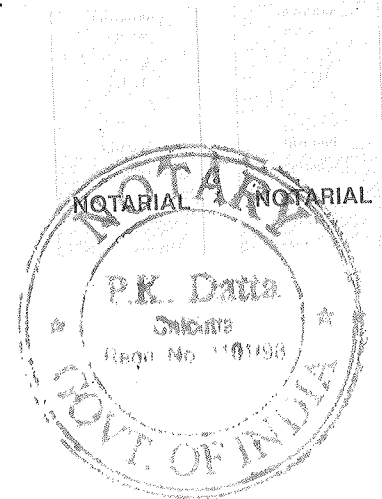
**BEFORE THE HON'BLE WEST BENGAL ELECTRICITY
REGULATORY COMMISSION, KOLKATA**

FILE NO.

CASE NO.

IN THE MATTER OF:

Application for Annual Performance Review
for the year 2021 - 22 in terms of the
Regulations of the Hon'ble West Bengal
Electricity Regulatory Commission.



30 JUN 2022

নং 5395

তার

মোকাম- জয়নগর এ. ডি. এন. অফিস

জেলা- দঃ ২৪ পরগণা

ক্রেতার নাম

সাক্ষর

মূল্য ২০৮

ভেত্তার- সুনীল মিত্র

স্বাক্ষর



AND

CESC Limited

CESC House

Chowringhee Square

Kolkata – 700001.

..... Petitioner

AFFIDAVIT

IN THE MATTER OF:

I, Jagdish Patra, son of Mr. Gajendra Nath Patra, aged about 52 years, residing at 4SW 5 Queen's Park, Kolkata - 700019, do hereby solemnly affirm and declare as follows:

1. That I am the Company Secretary of the applicant and have been acquainted with the fact and circumstances narrated in the application in respect of which the affidavit is sworn.
2. I have been authorized to swear this affidavit on behalf of applicant as I am competent to do so.
3. The statements made in paragraphs 1, 2, 3.1, 3.2.3, 3.2.8, 3.2.9, 3.3.1, 3.3.3 to 3.3.5, 3.4, 3.5, 4 to 8, 9.2 to 9.8, 10, 11, 12.1 to 12.13, 12.14.1, 12.14.4, 12.15 to 12.17, 13, 14 are true to my knowledge and belief and the statements made in the other paragraphs of the application are matters of records made available to me and based on information received which I believe to be true and correct.

Identified by me



M M ALAM, Advocate
CMM Court, Cal.



Place: Kolkata

Date: 28/12/2022

Solemnly Affirmed &
Declared before me on
certification of advocate


P.K. DATTA
Notary


Deponent

28 DEC 2022

POWER MAP OF CESC

(AS ON 31.03.2022)

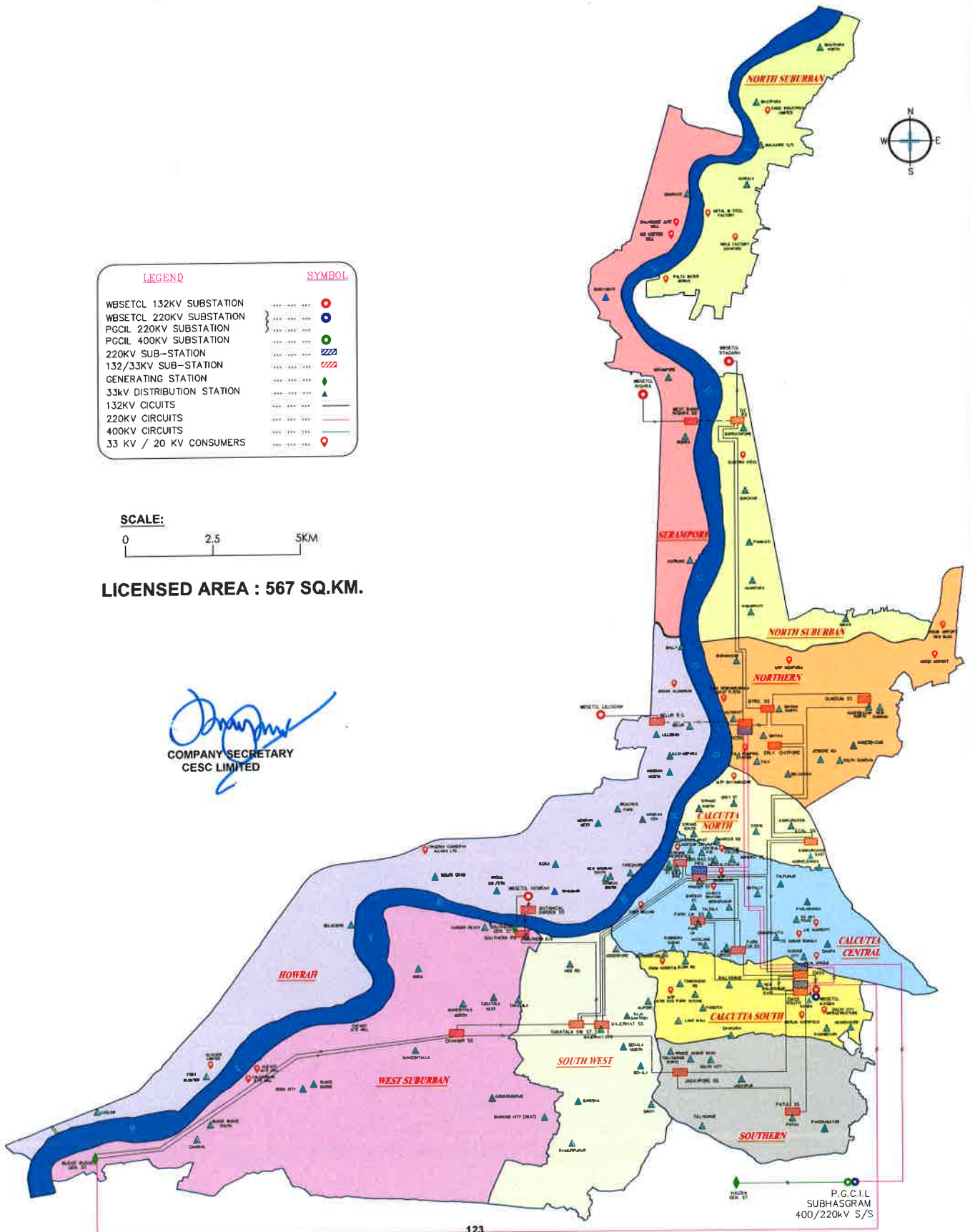
Attachment 1

LEGEND	SYMBOL
WBSETCL 132KV SUBSTATION	
WBSETCL 220KV SUBSTATION	
PGCIL 220KV SUBSTATION	
PGCIL 400KV SUBSTATION	
220KV SUB-STATION	
132/33KV SUB-STATION	
GENERATING STATION	
33kv DISTRIBUTION STATION	
132KV CIRCUITS	
220KV CIRCUITS	
400KV CIRCUITS	
33 KV / 20 KV CONSUMERS	



LICENSED AREA : 567 SQ.KM.

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P.G.C.I.L.
SUBHASGRAM
400/220KV S/S

Risk Analysis – Transmission vs. Distribution

Factors	Transmission	Distribution
Political Politicization of issues Dealing with several agencies Public Dealing Law & Order	<i>Practically No Risk</i>	<i>Severe Risk</i>
Recovery of Investment Certainty of Recovery Exposure to Market Fluctuations Recovery from Public Utilities	<i>More certain Contracted Contracted</i>	<i>Large collection risk Risky Very High Risk</i>
Lenders' perspective	<i>Higher Risk</i>	
Insurers' perspective	As all the perils are higher for Distribution, insurance premium is also higher	
Demand Supply Gap	<i>More Risky</i>	
	Transmission Licensees being natural monopolies, any such gap is at best an opportunity while for Distribution, any supply deficit results in a threat from competitors as well as consequent penalties with reference to maintenance of service standards	

Factors	Transmission	Distribution
Open Access	<i>No Risk</i>	<i>High Risk</i> For Distribution, increased competition with the risk of loss of paying consumers, particularly with liberal provision for captive generation
Operation and Maintenance Pilferage control Complexity of Operation/ Infrastructure Adverse non-controllables Manpower	<i>Practically Absent</i> <i>Less</i> <i>Absent</i> <i>Low</i>	<i>Very High</i> <i>More</i> <i>High</i> <i>High</i> Distribution involves higher complexity of operation with spread, demand growth and variability, fault detection etc; Adverse HT/LT ratio resulting in more losses; Pilferage control complexity which is virtually absent in Transmission; Huge diversity and wider degree of skill set for manpower compared to distribution
Construction/Establishment of Network Choice of technology/ location Ease of Setting up of Network Right of way		<i>More</i> <i>Far more difficult</i> <i>Far more difficult</i> Reach of Distribution network up to consumers' doorsteps
Off-take Placement in value chain Number of consumers Long term wheeling/ off-take agreements Take or pay Billing/collection process		<i>Complex Issues , more significant</i> <i>Far Higher</i> <i>Far Higher</i> <i>More Risky</i> <i>More Risky</i> Retail end of business requires additional effort; Universal Service Obligation not sufficiently backed up by take or pay; Payment uncertainty due to nature/ type / volume of consumers
Extent of Regulation	Distribution is governed by Regulations of wider ambit with stricter penal consequences	

Distribution is prone to more risk on all factors.



Budge Budge Generating Station received Gold Award in Global Safety Awards 2022 for outstanding achievement in Practicing Excellence Workplace Culture in Health and Safety- Evolving Safe work Practices in Operations



Budge Budge Generating Station received Gold Award for “Occupational Health & Safety” in 2021 at 11th Exceed Occupational Health Safety and Security



Budge Budge Generating Station was recognised with Gold Award for “Business Transformation Initiatives” at 9th National Excellence Practice Competition in 2021



Budge Budge Generating Station received "Aqua Foundation's Excellence Award 2021" under the category of "Water Management Private Sector"




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Budge Budge Generating Station was honoured with Gold Award – Power Generation at 3rd ICC National Occupational Health & Safety Awards 2021



Southern Generating Station received Silver Certificate in Power Generation Sector at 3rd ICC National Occupational Health & Safety Awards 2021




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Budge Budge Generating Station adjudged as winner of Environment Excellence Awards 2021



INDIAN CHAMBER OF COMMERCE



THEME 2021-2022
Governance
For Growth

Environment Excellence Awards 2021

for Power Sector

This is to certify that

CESC Limited
Southern Generating Station

was adjudged the

RUNNER UP

in Large Enterprise Category

Dr. Rajeev Singh
Director General
Indian Chamber of Commerce

14 January 2022, Kolkata

Southern Generating Station was adjudged Runner Up in Large Enterprise Category at
Environment Excellence Awards 2021



[Signature]
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CESC adjudged winner in Push Alert: An In-house Vendor-Agnostic Solution for Real-time System Disturbance Analysis on Mobility Platform by IPPAI in 2022



CESC adjudged winner for Best Distribution Company to promote Consumer Awareness by IPPAI in 2022



CESC received Gold Award for conversion of unauthorized user of electricity to authorized consumer in Tiljala Topsia area at 9th CII National Excellence Practice Competition 2021



CESC received Gold Award for Significant OPEX reduction for annual maintenance of Dist. Asset (Automatic Power Factor Control Units –APFC) through business process innovation at 9th CII National Excellence Practice Competition 2021



CESC received award on Total Quality Management at Global Summit 2021 organized by Techno India University and co-hosted by Quality Circle Forum of India



Budge Budge Generating Station won the Energy & Environment Foundations Global Awards 2021 and was recognised as “Global Water Conservation Company of the year”

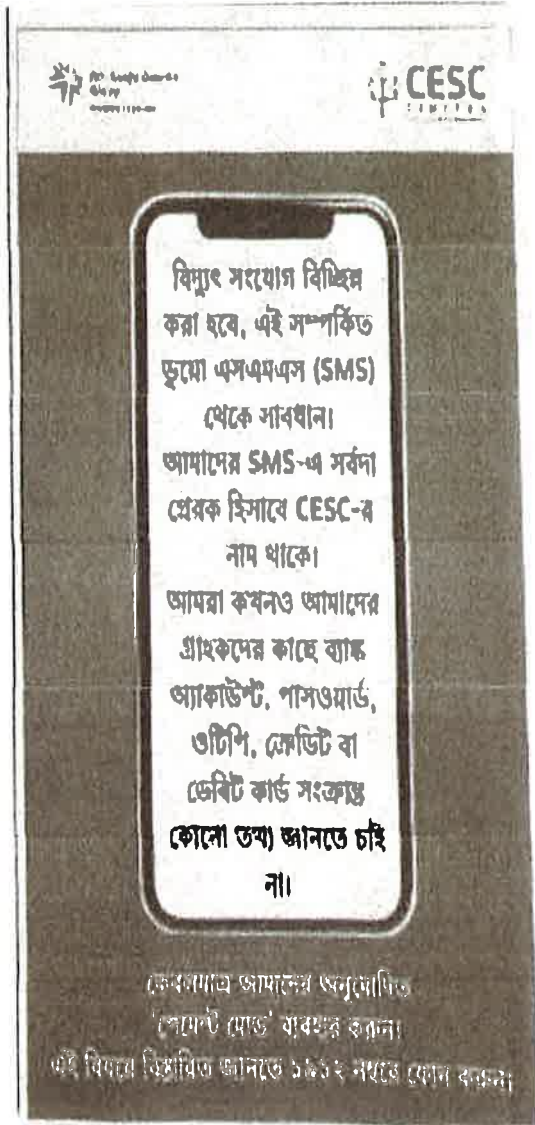


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CESC received awards on Quality Concepts (NCQC, ICQCC, QCFI) 2021 organized by Quality Circle Forum of India



The Indian Express



ABP

CESC initiatives regarding fake messages of power disconnection


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 CESC LIMITED**



Now let us Chat on WhatsApp

During these challenging times of Global Pandemic, restricted movement & keeping safe physical distance has become the new normal. In consideration of this unprecedented environment, CESC has launched its Digital Consumer Services on WhatsApp, which is enabled with Artificial Intelligence & Machine Learning Capabilities.

WhatsApp Number for CESC Limited is 7439001912 and Consumers can avail the following Services:

- **View / Download the Monthly Consumption Bill**
- **Registering a Complaint / Checking the Status**
- **Report Supply Off**
- **FAQs**
- **Avail our E-Services**

Benefits for Consumers:

- **Service Delivery on WhatsApp, a platform of their choice & convenience**
- **Services at fingertips of our valued Consumers from the Safety & Comfort of their homes and offices**

Just scan the QR Code or
Save the WhatsApp number and
send 'Hi' to avail our Services on

WhatsApp
7439001912



Consumer service initiatives


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আসুন এবার chat করি WhatsApp-এ

বিশ্বব্যাপী অতিমান্নির এই কঠিন সময়ে নিমন্ত্রিত চলাচল এবং নিরাপদ পারম্পরিক দূরত্ব বজায় রাখা এখন স্বাভাবিক নিয়ম হয়ে গিয়েছে। অতীতপূর্বে এই পরিস্থিতিতে গ্রাহকদের সুরক্ষা ও সুবিধার কথা ভেবে CESC নিজেদের ডিজিটাল পরিষেবাগুলি WhatsApp-এ শুরু করেছে। যেগুলি Artificial Intelligence ও Machine Learning - এর ক্ষমতায় সমৃদ্ধ।

CESEC Limited- এর WhatsApp নম্বরটি 7439001912 এবং গ্রাহকরা এর মাধ্যমে নিম্নলিখিত পরিষেবাগুলি গ্রহণ করতে পারবেন

- মাসিক বিদ্যুতের বিল দেখা ও ডাউনলোড করা
- অভিযোগ নথিভুক্ত করা / পরবর্তী পরিস্থিতি জানা
- বিদ্যুৎ সরবরাহে অভিযোগ থাকলে রিপোর্ট করা
- প্রায়শই যে প্রশ্নগুলি আসে সেগুলির উত্তর জেনে নেওয়া
- আমাদের ই-পরিষেবাগুলি ব্যবহার করা

গ্রাহকদের সুবিধা

- WhatsApp-এ পরিষেবা এখন গ্রাহকদের পছন্দের এবং প্রতিদিনের ব্যবহারের অন্যতম জনপ্রিয় একটি ডিজিটাল মাধ্যম।
- আমাদের মূল্যবান গ্রাহকরা বাড়ি ও অফিসে বসে এবং সুরক্ষিত থেকেই এই পরিষেবাগুলির সুবিধা নিতে পারবেন।

QR Code স্ক্যান করুন বা নম্বরটি
সেভ করুন এবং WhatsApp-এ 'Hi' লিখুন,
পরিষেবাগুলি উপভোগ করতে

WhatsApp
7439001912



Consumer service initiatives


COMPANY SECRETARY
CESEC LIMITED

এবার বর্ষায় বিদ্যুৎ-বিপদ ডেকে আনবেন না

বাইরে

- বৃষ্টি-বাদলে বিদ্যুতের পোলে, স্থানে থাকা ভারে, রাত্তার পিডার-বজ্রে, ল্যাম্পপোস্টে বা বিদ্যুৎ ঘন্ড্রে অনশ্যাই হাত দেবেন না।
- পথে জমে থাকা জল এড়িয়ে চলুন, নিরাপত্তার জন্য।
- কাজের জায়গা থেকে বেরিয়ে আসার সময় এসি মেশিন ও অন্যান্য বৈদ্যুতিক যন্ত্রপাতি বন্ধ করতে ভুলবেন না।

ঘরে

- নিজের ঘরেই অনেক সময় বিদ্যুৎ-বিপদ লুকিয়ে থাকে। মাঝে-মাঝে বাড়ির লাইন, সুইচ এবং বৈদ্যুতিক যন্ত্রপাতি চেক করে নিন।
- ভিজ়ে হাতে টিভি, ফ্রিজ, এসি, যন্ত্রপাতি অথবা কোনও সুইচ ছুঁয়ে বিপদ ডেকে আনবেন না।
- যখন চার্জ হচ্ছে তখন অনশ্যাই মোবাইল ফোন ব্যবহার করবেন না।
- পোড়া গন্ধ বের হলে অথবা হাত দিলেই শক লাগলে তা অবহেলা করবেন না, সুইচ অফ করে ইলেক্ট্রিশিয়ানকে ডাকুন।
- শক লাগার কারণ বুঝতে না পারলে মেন লাইন সুইচ অফ করে সিইএসসি-র নিচে দেওয়া হেডলাইন নম্বরগুলিতে-তে ডায়াল করুন।
- বর্ষায়, বজ্রপাতের সময় যন্ত্রপাতি সুইচ অফ করে রাখুন এবং সাবধানে প্রাণ খুলুন। জোড়াতাড়ি দেওয়া লাইনও বেশ বিপজ্জনক।
- স্থানে থাকা বৈদ্যুতিক তার অথবা যন্ত্রপাতি অনশ্যাই ছোবেন না।
- বৈদ্যুতিক ভারে ভিজ়ে কাপড় শুকোতে দিয়ে বিপদ ডেকে আনবেন না।
- খ্রিল বা ইন্সপাতের জানলায় এক্সটেনশন তার লাগাবেন না।

সিইএসসি এলাকায় ইমার্জেন্সি খবর দিতে ফোন করুন

০৬৬ ৬৫০১১৯১২ / ০৬৬ ৪৪০৬১৯১২ / ১৮৬০৫০০১৯১২ / ১৯১২

Consumer service initiatives


COMPANY SECRETARY
CESC LIMITED

Stay safe this Monsoon

OUT OF HOME

- During rains, avoid close proximity to electrical poles, stray wires or distribution box / kiosk.
- Do not touch loose / bare wires and electrical installations.
- Avoid waterlogged areas for your safety.
- At the workplace, do not forget to switch off ACs or other electrical equipment when not in use.

AT HOME

- Periodically check house wiring and switches - replace old and frayed wires.
- Never touch electrical switches and appliances with wet hands.
- Never use mobile phones while charging.
- Do not neglect any indication of burnt smell / mild shock from electrical switches / appliances. Switch off immediately - call an electrician.
- If you cannot identify the source of an electrical shock, turn off the main switch. Inform CESC at Helpline Numbers provided below.
- During heavy rains and lightning, switch off electrical gadgets and unplug them from the wall socket.
- Avoid touching dangling conductors or wires.
- Do not spread out wet clothes on or near overhead wires.
- Avoid drawing extension wires along metallic grille / windows.

**For any emergency in CESC Area Call
033 35011912 / 033 44031912 / 18605001912 / 1912**

Consumer service initiatives


**COMPANY SECRETARY
CESC LIMITED**

CYCLONE ALERT

Indian Meteorological Department (IMD) has issued
an alert due to cyclone YAAS

CESC is taking all possible actions to minimise inconvenience if any due to probable power disruption.

CESC has made all preparations & will work round the clock to restore supply, under the challenging ongoing pandemic environment and forecasted natural calamity.

We would like to express a sincere regret in advance for any possible inconvenience to our esteemed Consumers.

We request your patience & kind support.

Pre-cyclone preparation

- Do not panic and follow the guidelines received from reliable and Government sources
- Have essential supplies, food, medicine, water, etc. stored and ready for emergencies
- Keep electronic devices, such as mobile phones, power banks, inverters, emergency lights, etc. fully charged in advance
- Disconnect and remove any temporary wire connection, around a metal gate, window or grill, well before a thunderstorm occurs
- Take shelter at home or a nearby safe place prior to the cyclone. Do not stay out
- Keep an eye out for weather reports on radio / TV and Newspapers

During and after the cyclone

If you are indoor

- Disconnect electrical equipment and gadgets during the cyclone or thunderstorm
- Be careful not to touch an electrical switchboard on a damp wall as it could be a potential safety hazard
- Keep lights, fans and ACs switched off if not in use

If you are out of the house

- Do not touch any live & dead wires and note that they look alike
- Never touch an electrical pole / dangling wire if any / pillar-box during and after the thunderstorm / rain
- Cordon off and keep away from any broken electric pole / dangling wire / pillar-box on water logged road
- Get into a safe shelter / pucca building as soon as possible



For Assistance Call
3501 1912 | 4403 1912
1800 500 1912 | 1912



Please connect us on our
WhatsApp No. 7439001912
for assistance

Note: Kindly be careful both about the Cyclone and Corona as well. Wear masks all the time, wash your hands frequently with soap and maintain a safe physical distance. Apart from this, please adhere to other instructions issued by the Government regarding Corona.

Consumer service initiatives regarding cyclone




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CESC LIMITED


**DOWNLOAD CESC MOBILE APP TODAY!
& REACH US ANYTIME**


PAY ONLINE
& avoid stepping out

CESC APPS



PAY ONLINE

Download today  

 **RP-Sanjiv Goenka Group**



 **CESC LIMITED**

Why should you use the CESC app to pay your electricity bills?

-  **Zero wait time**
-  **No need to step out**
-  **Secure payment option of your choice**

And more...

Download now!

  **Log on to: www.cesc.co.in/**

Consumer service initiatives


**COMPANY SECRETARY
CESC LIMITED**

Presenting "AASTHA"
- Our Voice Assistant

Our voice assistant at your service

- Interacts with you in colloquial Bengali, English and Hindi
- Answers queries and registers complaints
- Provides necessary information
- Available 24*7



Dial 033 3501 1912, 033 4403 1912, 1860 500 1912, 1912 to avail this service



CHANGING NAME IN YOUR ELECTRICITY BILLS
IS NOW AT YOUR FINGER TIPS!
visit cesc.co.in

Scan the **QR code**
and enjoy a personalized
WhatsApp chat

Available 24*7 to
address all your needs.
Send Hi on 7439001912
Or Scan our QR Code



Ride The Green with Power Of Electricity
Switch To **E-VEHICLE** today!



#Live Free
Breathe Free

Consumer service initiatives


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CESC LIMITED

**REPORT
POWER THEFT**

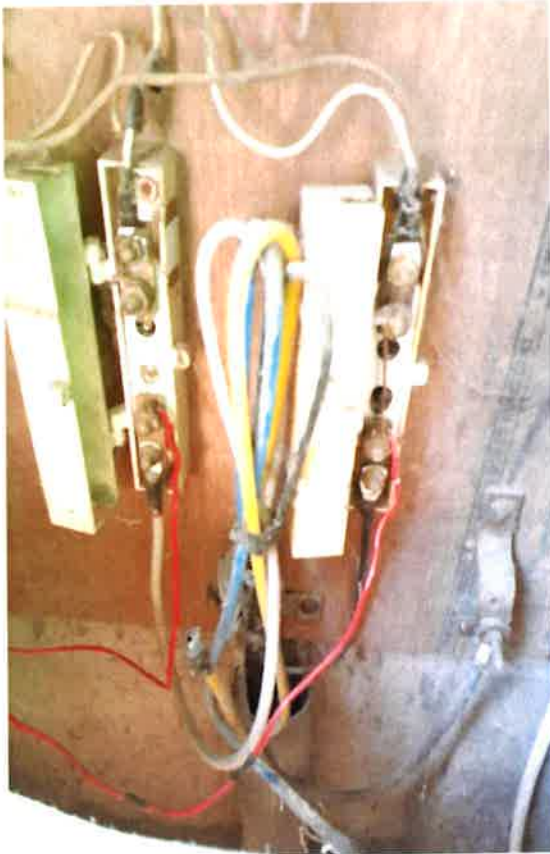
WhatsApp us on:
8585079399 / 8585079400

Consumer service initiatives on power theft


**COMPANY SECRETARY
CESC LIMITED**



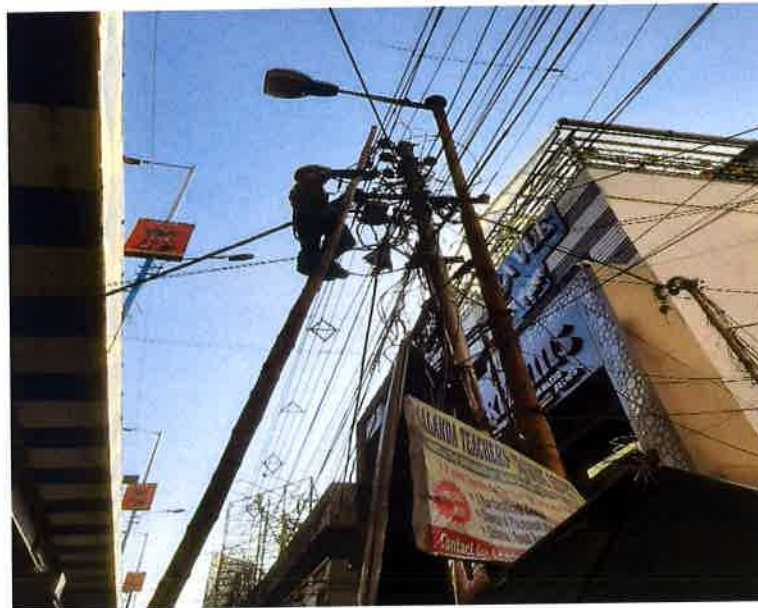
Approach towards curbing theft of electricity



Hooking from Service Cut Out



Hooking removal from Meter Pillar Box

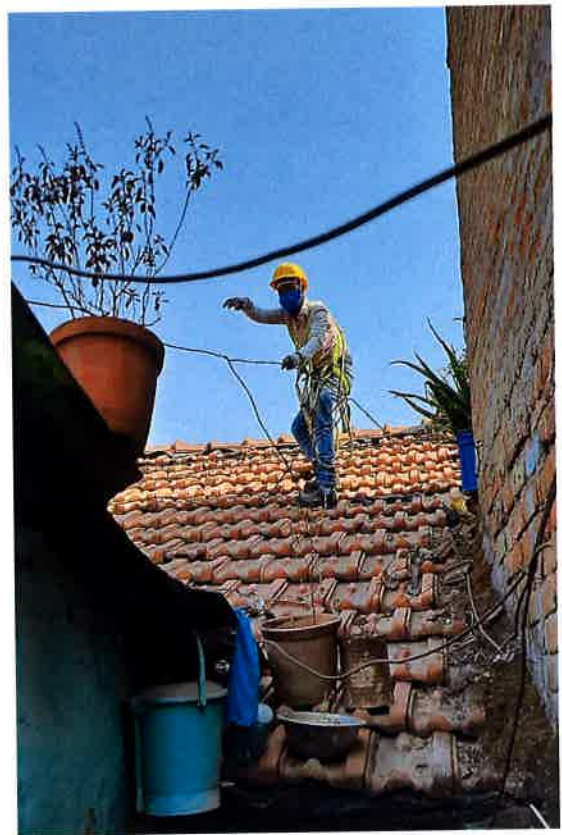


De-Hooking Drive - Nagerbajar

Approach towards curbing theft of electricity



De-Hooking Drive - Kamarhati



De-Hooking Drive - Kamarhati



New Connection Camp

Approach towards curbing theft of electricity