Glimpses of CESC's Journey over a Century in Kolkata
Night & Day Every day Since 1897

Kolkata – a rich History

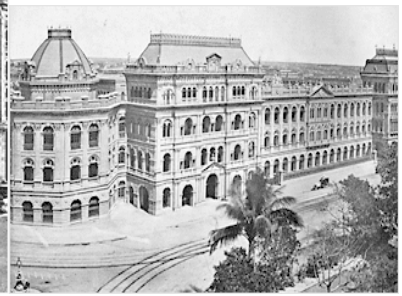
- Started as a British trade settlement in **1690** by **Job Charnok**, an agent of the East India Company.
- There were three large villages along the east bank of the river Ganges, named, Sutanuti, Gobindapur and **Kalikata**.




Kolkata – Capital of India for 140 years

- In 1772, Calcutta became the **capital** of British India, and the first governor general was Warren Hastings.
- Till 1912, Calcutta was the capital of India, when British moved the capital city to Delhi.

Architectural Splendors



The Story of Electricity in the City of Kolkata

First demonstrations of electric light

The first demonstration of electric light in Calcutta was conducted on 24 July, 1879 by P W Fleury & Co. In 1881, 36 electric lights lit up a Cotton Mill of Mackinnon & Mackenzie.

The first license

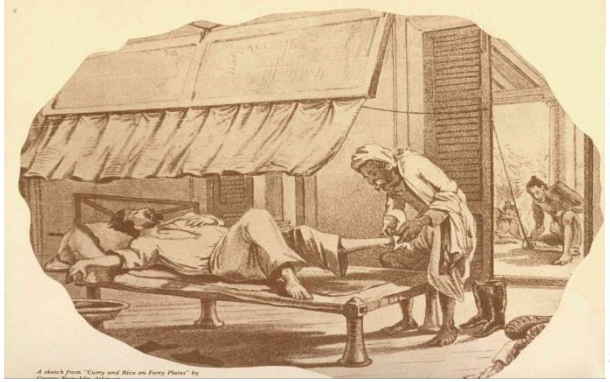
The Government of Bengal passed the Calcutta Electric Lighting Act in 1895.
The first license covered an area of 5.64 square miles.
In 1897, The Calcutta Electric Supply Corporation Limited was registered in London.

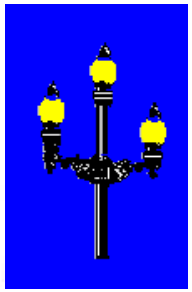
The first thermal power plant in India

On 17th April 1899, the first thermal power plant of The Calcutta Electric Supply Corporation Limited was commissioned at Emambagh Lane, heralding the beginning of thermal power generation in India.

With Kolkata Since 1897

The Government of Bengal passed the Calcutta Electric Lighting Act in 1895. In 1897, the Calcutta Electric Supply Corporation Limited was registered in London





The electrification of Calcutta took place 17 years after New York and 11 years after London.

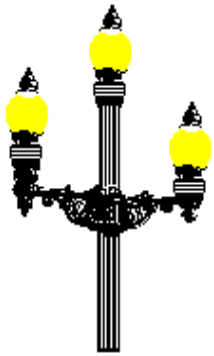
The Story of Electricity in the City of Kolkata

Growth beyond expectation

The demand for power grew beyond expectation. Three more stations were started: Alipore in 1902, Ultadanga and Howrah in 1906.

1912 - Cossipore Generating Station commissioned

Replaced the four powerhouses by one.

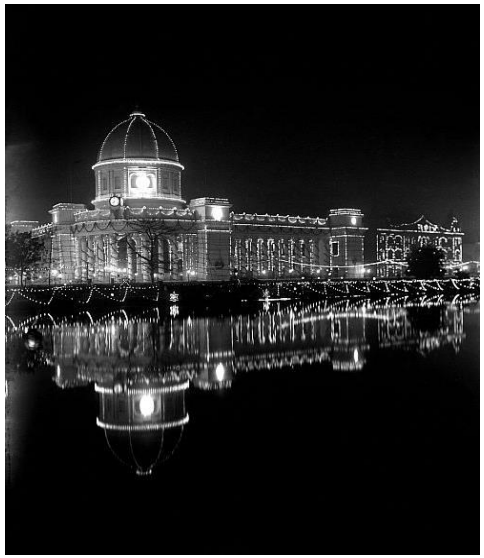


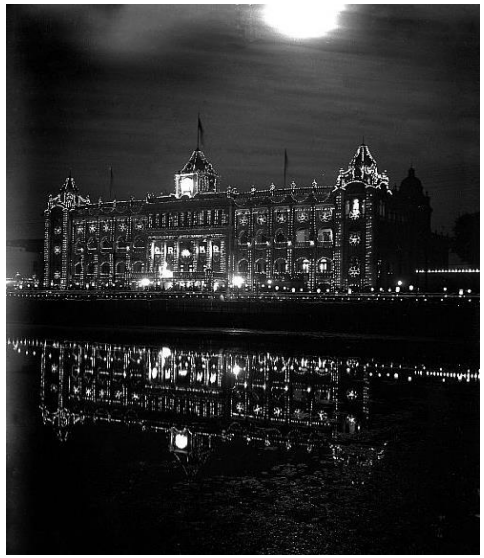
Street lighting

1914-1916: 1000 candle power Keiths lamps were installed on Corporation Street and Chowringhee.

1926- Southern Generating Station commissioned

Dalhousie Square lit up in –1912 !





1912 British royal visit of by King George V and Queen Mary.

From plate-glass negatives discovered inside a shoe-box in the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) in Edinburgh. Unknown photographer may have been British civil servant in Calcutta

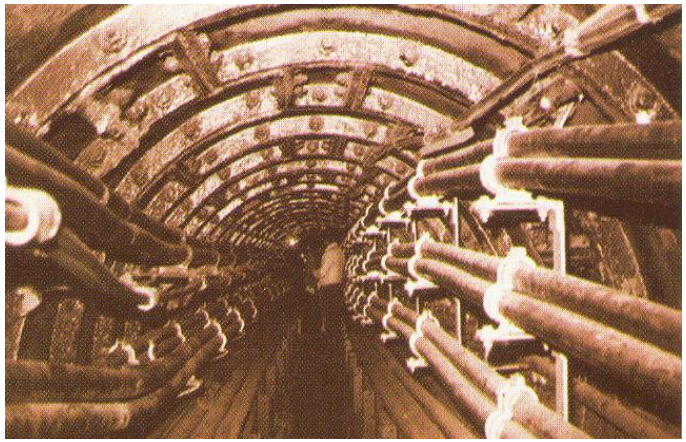
The Story of Electricity in the City of Kolkata

Underwater cables to Howrah

Jute mill owners showed interest in the new power. The Calcutta Electric Supply Corporation laid cables under the pontoon bridge on the Hooghly.

Tunnelling the Hooghly - a marvel in engineering

A tunnel was constructed under the river Hooghly in 1931. This was 690 yards long, 6 feet in diameter and 90 feet underground and still remains a marvel in engineering.

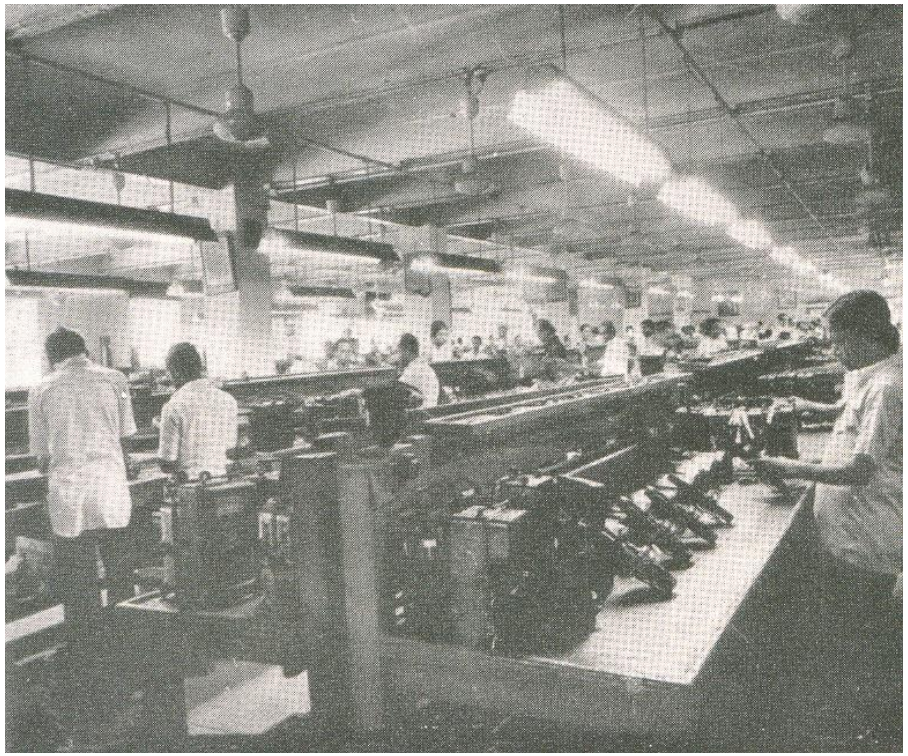


1940 - Mulajore Generating Station commissioned and was in service till 2003.

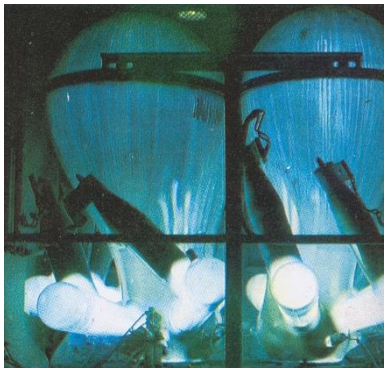
1950 - New Cossipore Generating Station (100 MW) commissioned*
Unique Generation directly at 33 kV to load bus at both stations.

The Story of Electricity in the City of Kolkata

DC was widely used.

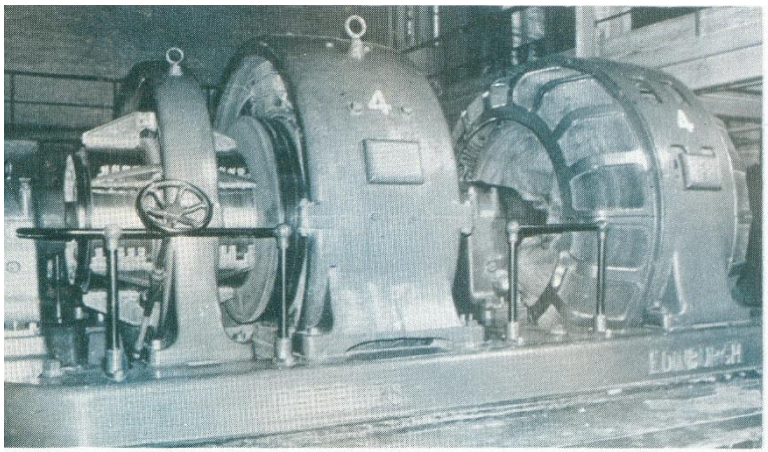


Had the world's largest DC Meter repairing shop till 2008



Mercury Arc Rectifiers

Motor Converters



The Story of Electricity in the City of Kolkata

Load Shedding

From the early 1970's, load shedding became a household word, the intensity increasing steadily till 1983 when CESC was allowed to set up a 4 x 60 MW Generating Station at Titagarh.

London Head Office shifts to Calcutta

In 1970, the control of the Company was transferred from London to Calcutta. In 1978 it became a rupee company with the new name - The Calcutta Electric Supply Corporation (India) Ltd.

The RPG association adds new vitality

CESC's association with RPG, one of India's top industrial houses, began in 1989, when Mr. R P Goenka came into the Board of Directors.

The Story of Electricity in the City of Kolkata

More Generating Stations added:

1984 – 4 x 60 MW at Titagarh

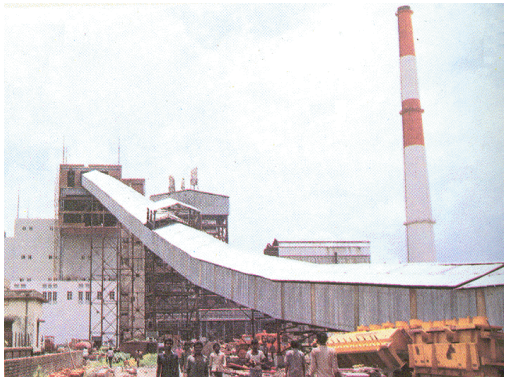
1990 – 2 x 67.5 MW at Southern

1998 – 2 x 250 MW at Budge Budge

2009 – 3rd 250 MW at Budge Budge

All the above Thermal Power Plants –ISO certified

Southern Generating Station



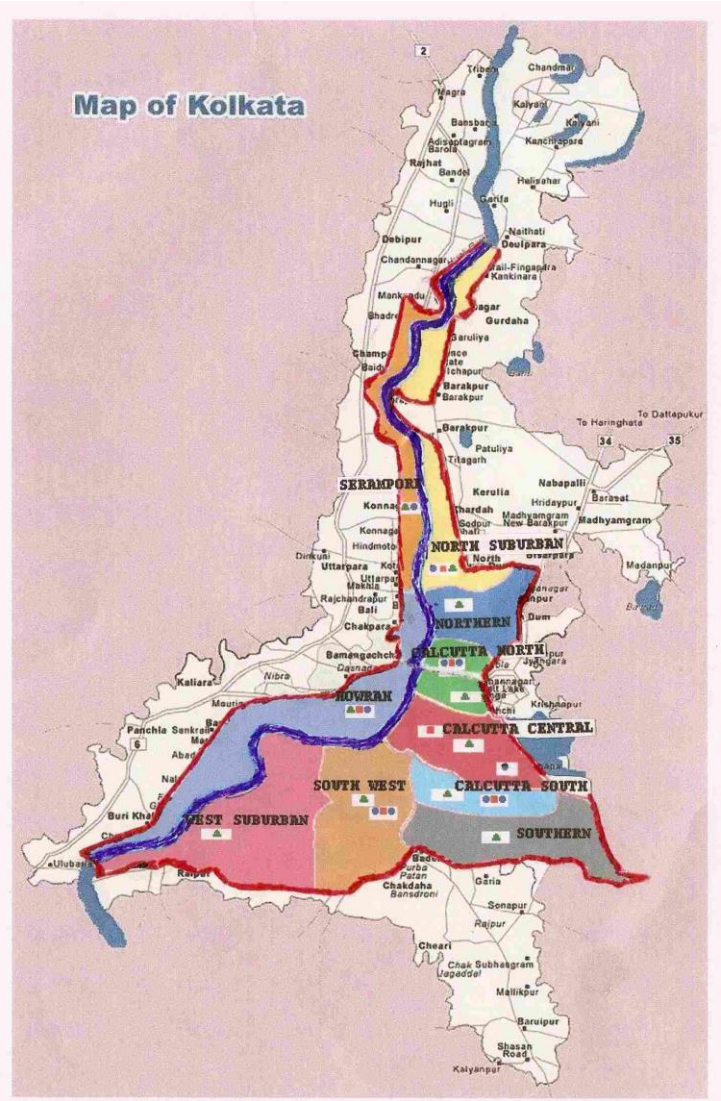
Budge Budge Generating Station

CESC Milestones at a glance….

Year	Milestones
1897	COMPANY FORMED
1899	DC GENERATION
1912	COSSIPORE GENERATING STATION
1912	SUBMARINE CABLE ACROSS HOOGHLY RIVER
1912	6 KV AC INTRODUCED
1926	SOUTHERN GENERATING STATION
1929	20 KV POWER TRANSMISSION
1931	CABLE TUNNEL UNDER HOOGLY RIVER BED
1934	33 KV POWER TRANSMISSION
1940	MULAJORE GENERATING STATION
1950	TELEMETERING FROM GEN & EHV STATIONS TO CCR
1950	NEW COSSIPORE GENERATING STATION

1957	33 KV SYSTEM RECEIVING SUBSTATION
1964	132 KV SYSTEM RECEIVING SUBSTATION
1964	**132 KV GAS FILLED CABLES**
1973	BILLING COMPUTERISATION
1989	NEW SUPPLY PROCESSING COMPUTERISATION
1991	INHOUSE POINT TO POINT SCADA DEVELOPMENT
1992	MOTORISED DEPOT OPERATION
1993	GEOGRAPHIC INFORMATION SYSTEM
1994	132 & 33 kV GAS INSULATED SWITCHGEAR & 132 kV XLPE CABLES INDUCTION IN SYSTEM
1994	OPTICAL FIBRE COMMUNICATION
1996	CENTRALIZED SCADA
1997	BUDGE BUDGE GENERATING STATION
2007	220kV SYSTEM RECEIVING SUBSTATION

2013	220 kV GIS & 220kV CABLES INDUCTION IN SYSTEM
2014	INDIA'S TALLEST 400 KV RIVER CROSSING TOWER 236 M HIGH & SPANNING 1572 M
2015	UNDER GROUND EHV SUBSTATION WITH 132 & 33 kV GIS
2017	CONTAINERISED 33 kV DISTRIBUTION SUBSTATIONs



KEY STATISTICS

(As on 31/03/2018)

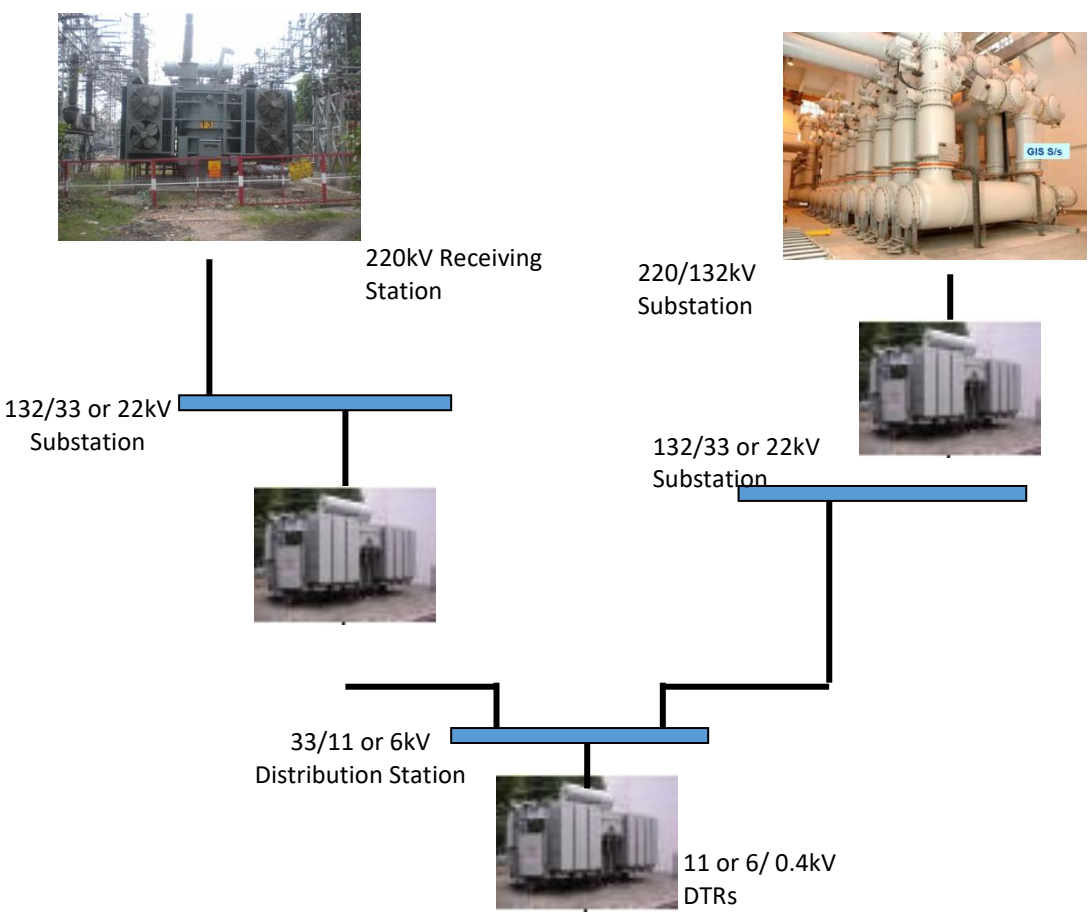
- Installed Generation Capacity: 1225 MW
- LT Consumers : 3.2 Million
- HT Consumers : 1800
- Max. System Demand : 2159 MW
- Energy Delivered FY 2017-18 :10842 MU
- ADMN. REGIONAL OFFICES: 6
- NO. OF BUSINESS DISTRICTS: 10

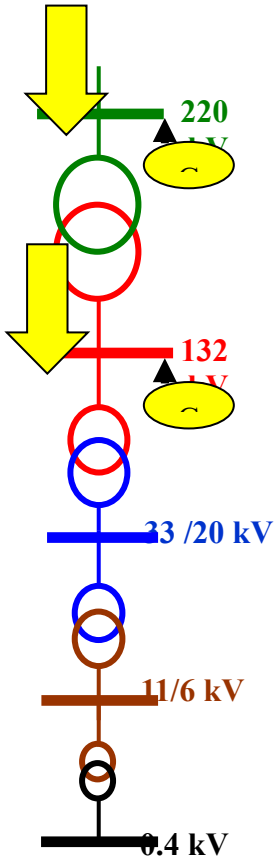
DISTRIBUTION SYSTEM

(As on 31/03/2018)

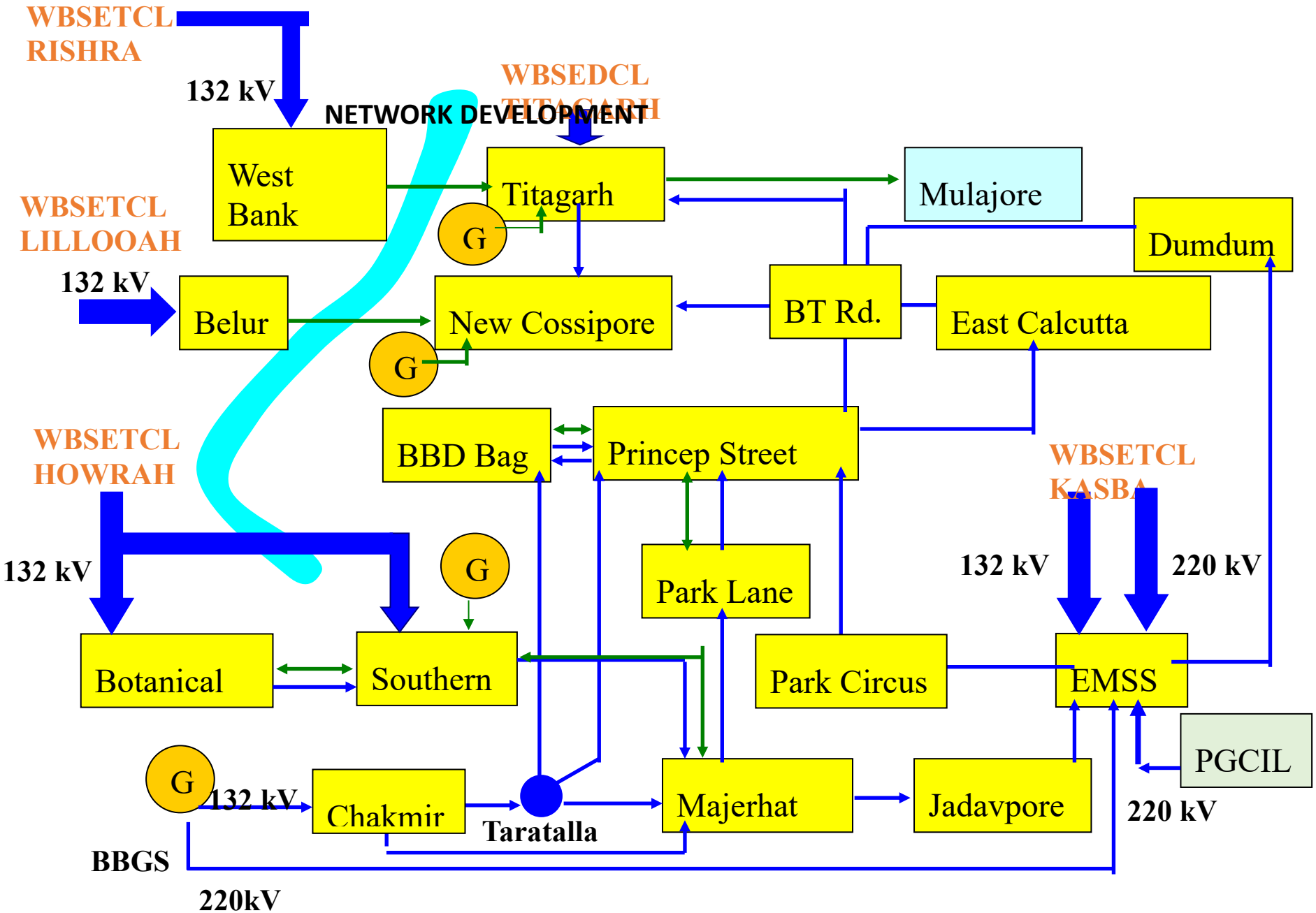
220/132 kV S/S (2 No.) : 1280 MVA
132/33 KV S/S (17Nos.) : 3002 MVA
33/11/6 KV D/S (116 Nos.) : 3800 MVA
11/6/0.4 KV DTRs (8348 Nos.) : 2880 MVA
220 KV CIRCUIT (OH+UG) : 266 CKM
132 KV CIRCUIT (OH+UG) : 388 CKM
33/20 KV CIRCUIT (OH+UG) : 1645 CKM
11/6/3.3 KV CIRCUIT (OH+UG) : 6760 CKM
LT CIRCUIT (OH+UG) :13172 CKM
SHUNT CAPACITOR : 1045 MVAR

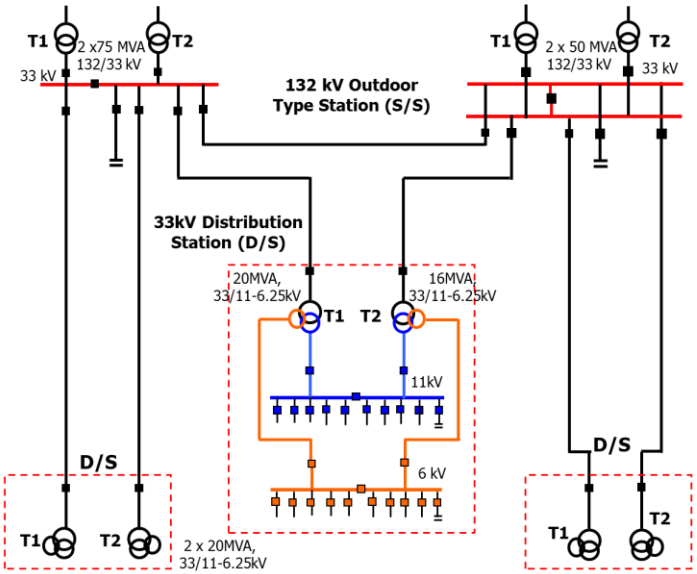
CITY POWER DISTRIBUTION NETWORK



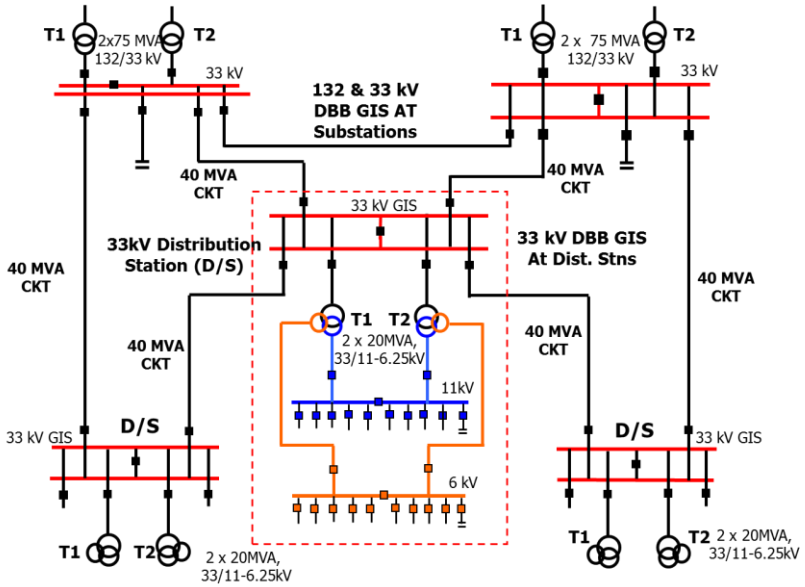


CESC EHV Transmission System





Previous Network Configuration



Present Interconnected Network Configuration