THIRD AND FINAL REPORT

OF THE

Committee appointed to investigate the Dangers arising from Coal-Dust in Indian Mines.

CALCUTTA: GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1932

APPENDIX I.

Summary of Conclusions and Recommendations.

(Figures in italics refer to relevant paragraphs.)

1. Present and immediately anticipated equipment of Delhi Province for generation of electric energy inadequate. (*26—28.*)

2. Concentration at one producing centre of all generation of electric energy in Delhi Province essential. (*37, 43, 133.*)

3. Present power station of New Delhi Municipal Committee on river bank the only suitable site. (*26, 63.*)

4. Present generating and high tension distribution plant of New Delhi Municipal Committee be taken over at valuation along with further plant under order. (*65.*)

5. No plant of Company be taken over. (*63.*)

6. Company's present high tension mains between Lahori Gate and riverside power station be taken over at valuation. (*66.*)

7. Further development by stages designed to fit in with anticipated development of demand. (*64-65 and Appendix VII.*)

8. The United Provinces hydro-electric system cannot meet Delhi needs. (*85.*)

9. In the event of hydro-electric power in the Punjab becoming available at a favourable rate, it should be taken. (*86, 90, 92, 135.*)

10. If Punjab link effected, extensions of power station will not be necessary. (*86.*)

11. High tension distribution extensions will, however, be necessary. (*86.*)

12. Management of generation of electric energy by a Joint Board, which would also deal with water and sewage, undesirable. (*46.*)

13. Generation of electric energy should be entrusted to an authority which might be termed the Delhi Central Electric Power Authority, registered under Companies Act on guarantee with no share capital, on lines indicated in Appendices VI-A and VI-B. (*47, 133.*)

14. The New Delhi Municipal Committee should guarantee a bulk supply to the Company for two years or until the central generating Authority comes into being. (*106, 134.*)

15. Existing agreement between the Joint Water Board and the Company (which continues in force until the 1st day of April 1945) should be determined when the central generating Authority is in a position to undertake direct supply. (*104.*)

16. Management of the Authority should be through a Board on which the two Municipalities, the Punjab Chamber of Commerce, licensees, industrial consumers, the Cantonment and Government should be represented (*Appendix VI-B, Section 22.*)

17. Capital to be found by loan by Government. (*Appendix IX, Section 11.*)

18. Authority to be on no-profit basis, its charges covering only working cost, interest and depreciation charges and small renewals reserve. (*43, 114.*)

19. The Authority should enter into negotiations with the Shahdara licensees with a view to supplying this area in bulk from the Central Generating Station. (*113.*)

20. Maximum rates be fixed for charges. (*48, 114, 115 and Appendix XIV.*)

21. Consumers of more than 500,000 units per annum be allowed to take supply direct from generating station. (*38—42.*)

22. The licence issued to the new generating Authority might follow the model suggested in Appendix XV. (*121.*)

23. Maxima be applied to charges made by distributing licensees. (*93—97.*)

24. Early arrangements be made for the extension of high tension distribution to Mahrauli by the New Delhi Municipal Committee. (*128.*)

25. Company's charges under security deposits from consumers be reduced and linked with capacity of installations. (*124.*)

26 Both alternating and continuous current systems of supply be permitted. (*129.*)

27. Cost of so much of New Delhi electrical system as was installed for aesthetic reasons be removed from the accounts of New Delhi electric undertaking and treated as a subsidy to the Municipality. (*29.*)

28. Provision for sinking fund in addition to adequate provision for depreciation by the New Delhi Municipal Committee represents an undue burden on their electrical undertaking. (*108.*)

29. The whole or part of the savings which will accrue to certain Departments of the Central Government as a result of the adoption of the rates recommended could be returned to the New Delhi Municipal Committee in the form of a grant-in-aid. (*111-112.*)

30. Meter rents be equalised and lowered. (*125-126.*)

APPENDIX II.

List of representations received

Local Bodies, etc.—

Delhi Municipal Committee.
New Delhi Municipal Committee.
Delhi Joint Water Board.
Superintending Engineer, Health Services, Delhi.
Superintending Engineer, 1st Circle, Central P. W. D.

Licensees—

Delhi Electric Supply and Traction Company, Limited.
(*see also New Delhi Municipal Committee.*).

Commercial and Private Bodies—

Delhi Cloth and General Mills Company, Limited.
Delhi Factory Owners' Federation.
Glassware Merchants' Association.
Gwalior Potteries, Limited.
Imperial Secretariat Association.
Punjab Chamber of Commerce.

Individual Consumers—

Mr. Bangali Mal,
Chief Engineer, All-India Radio.
Mr. G. T. Tait—Timarpur.
Háji Mohammad Saleh.
Mahrauli Residents.
Mr. Mulchand Sharma.
Timarpur Residents.

APPENDIX III.

List of witnesses examined.

Local Bodies.	*Represented by*
Delhi Municipal Committee	1. Mr. Harish Chandra, Advocate (Senior Vice-President). 2. K. S. Haji Rasheed Ahmad. 3. Mr. Raj Narain Khanna. 4. R. B. Sohan Lal, M.B.E., P.C.S. (Retired) Secretary. 5. Mr. S. N. Chakravarti, I.S.E., Municipal Engineer. 6. Prof. B. C. Chatterjee, M.I.E.E., F.R.S.A.
New Delhi Municipal Committee	1. Mr. A. W. H. Dean, M.C. (President). 2. S. B. Sobha Singh (Vice-President). 3. R. B. M. R. Soi, Electrical Engineer. 4. R. B. Joseph E. Thakar Das, P.C.S. (Secretary). 5. Mr. Rang Behari Lal (Financial Member).
Delhi Joint Water Board & Superintending Engineer, Health Services, Delhi.	Mr. J. A. R. Bromage, M. Inst. C.E.
Licensees.	
Delhi Electric Supply and Traction Company, Ltd.	1. Mr. A. W. R. Lovering (Director and Secretary). 2. Mr. S. H. Taylor (Director). 3. Mr. H. J. Donkin (General Manager).
(See also New Delhi Municipal Committee.)	
Commercial Bodies.	
Crown Flour Mills, Delhi	Lala Baij Nath Syal.
Delhi Cloth and General Mills Co., Ltd.	1. Lala Shankar Lal. 2. Mr. Ram Narain Khosla.
Delhi Factory Owner's Federation	Lala Baij Nath Syal.
Glassware Merchants Association	Mr. Noor Ahmad.
Gwalior Potteries, Ltd.	Mr. R. K. Saksena.
Punjab Chamber of Commerce	Mr. Raj Bans Bahadur.
Individual consumers.	Mr. Bangali Mal. Mr. R. E. Grant Govan. Haji Mohammad Saleh.
Individual officers.	J. C. Nixon, Esquire, C.S.I., C.I.E., I.C.S. F. T. Jones, Esquire, C.I.E., M.V.O. A. P. Hume, Esquire, I.C.S. H. P. Thomas, Esquire, C.I.E., Chief Engineer, Punjab, P. W. D., Eiectricity Branch.

APPENDIX IV.

DELHI ELECTRIC SUPPLY AND TRACTION COMPANY, LIMITED.

(INCORPORATED IN ENGLAND.)

Statement showing the rate of Dividend paid to Shareholders from 1908—1935.

Year.	Perferred shares.	Ordinary Shares.	Remarks.
1908	..	..	
1909	..	..	
1910	..	..	
1911	..	..	
1912	..	..	
1913	..	..	
1914	..	..	
1915	..	..	
1916	2%	..	
1917	4%	..	
1918	6%	..	
1919	7%	6¼%	
1920	8%	7½%	
1921	8%	7½%	
1922	8%	7½%	
1923	10%	9½%	
1924	10%	9½%	
1925	12%	11%	
1926	12%	11%	
1927	..	12%	All Preferred Shares converted to Ordinary Shares.
1928	..	12%	
1929	..	12%	
1930	..	12%	
1931	..	12%	
1932	..	12%	Free of Income Tax.
1933	..	12%	Do.
1934	..	12%	Do.
1935	..	12%	Do.

APPENDIX V.

Delhi Electric Supply & Traction Company, Limited, Delhi.

Form of Accounts. 31st December 1935.

As prescribed for Companies under the Indian Electricity Act, 1910.

Statement of Share Capital appropriated for the purposes of the undertaking authorised by the Electric licence at the end of the year.

No. I.

Description of Capital.	Authorised by	No. of shares issued.	Nominal amount of share.	Called up per share.	Total paid-up.	Issued not paid-up.	Remaining un-issued.	Total amount authorised.
		£	£	£	£	£	£	£
Ordinary	Prospectus and articles of association.	200,000	1	1	200,000	*Nil.*	*Nil.*	200,000

Statement of Loan Capital appropriated for the purposes of the undertaking authorised by the Electric licence at the end of the year.

No. II.

Description of loan.	Amounts borrowed.				Remaining borrowing powers.	Total amount of borrowing powers
	At per cent.	At per cent.	At per cent.	Total.		
	£	£	£	£	£	£

Total Share Capital Paid-up, see No. I.
Total Loan Capital Borrowed, see No. II.
Total Capital Received.

Companies' Accounts.

No. III.—CAPITAL ACCOUNT.

Dr.

	Expenditure up to end of previous year. £	s.	d.	Expended during the year. £	s.	d.	Total Expenditure to £	s.	d.
1. To preliminary expenses (to be specified)	..			..			..		
Cost of orders and original Installation	..			..			..		
2. To land including law charges incidental to acquisition	..			5,389	4	11	5,389	4	11
3. To buildings	19,506	10	7	505	3	1	20,011	13	8
4. To plant	144,518	6	7	3,629	6	5	148,147	13	0
5. To mains (underground)	18,778	14	6	220	15	9	18,999	10	3
6. To service connections	68,170	4	4	6,603	13	9	74,773	18	1
7. To transformers, etc.	..			..			..		

Cr.

	Received up to end of previous year. £	s.	d.	Received during the year. £	s.	d.	Total receipts to £	s.	d.
By ordinary shares of	200,000	0	0	..			200,000	0	0
Ditto	..			..			..		
By preference shares of.	..			..			..		
By Debenture stock	..			..			..		
By mortgages and bonds.	..			..			..		
By amounts received in anticipation of call.	..			..			..		
By other receipts (to be specified).	..			..			..		

8. To meters, and fees for certifying under the Act .	..	..	.			
9. To general stores.	..	..	..			
10. To special items (to be specified).	..	..	..			
Tramways (including Rollingstock)	62,113 15 0	..	62,113 15 0			
Petrol Buses .	4,194 10 1	..	4,194 10 1			
Trolley Buses .	4,691 11 0	27 19 2	4,719 10 2			
Overhaul Equipment unclassified items (original contract) .	5,472 18 6	723 7 10	6,196 6 4			
Unclassified items (original contract) . .	19,631 7 8	..	19,631 7 8			
Poles and Brackets	10,009 4 1	..	10,009 4 1			
Total expenditure.	357,087 2 4	17,099 10 11	374,186 13 3	200,000 0 0	..	200,000 0 0
To balance of Capital Account . .	357,087 2 4	17,099 10 11	374,186 13 3	200,000 0 0		20,000 0 0

Companies Accounts.

No. IV.—REVENUE ACCOUNT.

Dr.

	£	s.	d.	£	s.	d.
A.—Generatin.						
1. To fuel	17,541	6	7			
2. To oil, waste, water and engine-room stores	2,634	7	10			
3. To proportion of salaries of engineers, superintendents and officers	2,662	12	8			
4. To wages and gratuities . .	832	17	6			
5. To repairs and maintenance as follows :—						
Buildings	54	10	9			
Plant	2,207	14	6			
To special items (to be specified). Current purchased from New Delhi Municipality . .	7,991	11	11			
Tools	159	3	0			
				34,084	4	9
B.—Distribution.						
1. To proportion of salaries of engineers, superintendents and officers	1,638	0	0			
2. To wages and gratuities . .	1,931	14	9			
3. To repairs, maintenance and renewals of mains . . .	5,995	8	6			
4. To repairs, maintenance and renewals of transformers, etc. .	..					

Cr.

	£	s.	d.	£	s.	d.
1. By sale of energy for lighting purposes.	52,412	4	5			
2. By sale of energy for power purposes	29,559	0	11			
3. By sale of energy under special contracts	12,249	5	10			
4. By public lighting . .	12,034	9	10			
5. By rental of meters and other apparatus on consumer's premises	7,329	17	5			
6. By rents receivable . .	112	6	9			
7. By transfer fees . . .	..					
8. By miscellaneous receipts from consumers . .	457	14	2			
				114,154	19	4
9. By other items (to be specified)	..					
Profit on Tramways . .	..			244	19	8
				1,14,399	19	0

5. To repairs, maintenance and renewals of meters, switches, cut-outs and other apparatus on consumer's premises . . .	2,788	[illegible]	4						
Maintenance of tools . . .	159	[illegible]	1						
Miscellaneous	298	18	7						
				12,811	5	3			
C.—*Public Lamps.*									
1. To attendance and repairs . .	2,334	10	1	2,334	10	1			
2. To renewals, etc. . . .	..			..					
D.—*Rents, rates and taxes.*									
1. To rents payable . . .	253	3	6						
2. To rents and taxes . . .	22	3	4						
				275	6	10			
E.—*Management expenses.*									
1. To Directors' Technical advisers . remuneration . . .	2,450	0	0						
2. To management . . .	5,833	13	3						
3. To general establishment charges	1,424	7	4						
4. To auditors of Company . .	255	0	0						
5. To Auditor appointed under the provisions of the Act . .	..			9,963	0	7			
F.—*Law charges.*									
To law expenses . . .	..			139	11	7			
				59,607	19	1	1,14,399	19	0

No. IV.—REVENUE ACCOUNT—*contd.*

Dr.	£ s. d.	£ s. d.	Cr.	£ s. d.	£ s. d.
		59,607 19 1			114,399 19 0
G.—*Depreciation.*					
1. To depreciation in respect of leasehold works					
2. To depreciation in respect of buildings					
3. To depreciation on plant . .					
4. To depreciation on mains . .		7,000 0 0			
5. To depreciation on transformers, etc.					
6. To depreciation on meters . .					
7. To depreciation on general stores .					
8. To depreciation in respect of any other items, to be specified .					
H.—*Special charges.*					
To special items (to be specified) .	..				
Fire and other Insurance . .	483 0 8				
Miscellaneous	4,039 3 8				
		4,522 4 4			
Total expenditure .		71,130 3 5			
Loss on Petrol Buses 1,316 9 1	..	1,843 9 8			
Loss on Trolley Buses 527 0 7	..				
Balance carried to net revenue .	..	41,426 5 11			
		114,399 19 0			114,399 19 0

Companies' Accounts.

No. V.—NET REVENUE ACCOUNT.

Dr.

	£	s.	d.
1. To interest on debentures accrued due to date	..		
2. To interest on mortgages and bonds accrued due to date	..		
3. To interest paid less received	34	12	2
4. To dividend on preference stock	..		
5. To income-tax	10,000	0	0
6. To balance applicable to dividend on ordinary stock or shares	43,111	5	6
	53,145	17	8

Cr.

	£	s.	d.	£	s.	d.
1. By Balance from last account	..			40,031	1	8
Less dividend paid	24,000	0	0			
By amount carried to Reserve Fund	4,618	19	5			
				28,618	19	5
				11,412	2	3
2. By Balance brought from revenue account (No. IV)	..			41,426	5	11
3. By interest on money at deposit.	..			..		
Transfer fees				19	6	0
Provident Fund repayments				115	19	10
Exchange				172	3	8
				53,145	17	8

No. VI.—RESERVE FUND ACCOUNT.

Dr.	£	s.	d.	Cr.	£	s.	d.
1. Amount paid out (items to be specified) . . .	..			1. By balance brought from last account . .	55,000	0	0
2. Amount of balance to next account . . .	62,000	0	0	2. By amount brought from net revenue account .	4,618	19	5
				3. By interest on amount invested . . . (Description of investments to be specified).	2,381	0	7
	62,000	0	0		62,000	0	0

No. VII.—DEPRECIATION FUND ACCOUNT.

Dr.	£	s.	d.		Cr. £	s.	d.
To Balance	156,716	10	5	1. By Balance from last account	149,716	10	5
				2. By interest on investments	..		
				3. By amount brought from revenue account (see No. IV-G.)	7,000	0	0
				(Description of investments to be specified) .	..		
	156,716	10	5		156,716	10	5

No. VIII.—GENERAL BALANCE SHEET.

Dr.

Liabilities.	£	s.	d.
1. To Capital Amount: Account received as per Account No. III	200,000	0	0
2. To sundry creditors due on construction of plant and machinery, fuel stores, etc.	..		
3. To sundry creditors on open accounts	62,083	18	3
4. To net revenue account : balance at credit thereof .	43,111	5	6
5. To reserve fund account : balance at credit thereof .	62,000	0	0
6. To depreciation fund account	156,716	10	5
7. To special items (to be specified)	638	6	0
Total . .	524,550	0	2

Cr.

Assets.	£	s.	d.
1. By Capital Account : Amount expended for works as per Account No. III . . .	374,186	13	3
2. By stores on hand	38,176	9	0
3. By sundry debtors	21,127	8	3
4. By preliminary expenses awaiting adjustment.	..		
5. By securities and held (cost price). Less profit on realization	86,688	3	2
6. By special items (to be specified) Furniture and Fixtures	1,534	3	10
7. By cash at Bankers	..		
8. By cash on hand	2,837	2	8
Total .	524,550	0	2

Companies' Accounts.

No. IX.—STATEMENT OF ENERGY GENERATED, SOLD, ETC.

Total energy generated in Kilowatt-hours & purchased from New Delhi Municipality.	Kilowatt-hours sold. Public lamps.	By special Contract.	Consumers by meter for lighting purposes.	Consumers by meter for power purposes.	Total	Kilowatt-hours used on works.	Kilowatt-hours not accounted for.	Total Kilowatt-hours accounted for.	Kilowatts connected for public lamps.	Total consumers connected.	Total Kilowatts connected*.	Plant installed Kilowatts.	Maximum supply demanded in Kilowatts.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
11,062,819	1,011,678	1,026,808	3,062,240	4,266,540 Includes 812,144 for Tramways and Trolley Buses.	9,367,261	249,961	1,445,597	9,367,261	28,724	15,475	19,588 approximate for tramways and Trolley Buses.	3,927	3,627

* Where the undertaking supplies power to tramways the units sold to the tramways should be treated as sold by "special contract". In calculating the "Total Kilowatts connected" the Kilowatts connected exclusive of the tramway should first be ascertained; then the Kilowatts connected to the tramway system should be assumed to bear the same ratio to the units used on the tramway as the remaining Kilowatts connected bear to their consumption.

For and on behalf of Delhi Electric Supply and Traction Company Limited,

A. W. R. LOVERING,

Director and Secretary.

APPENDIX VI-A.

DRAFT MEMORANDUM OF ASSOCIATION.

1. The name of the company is "The Delhi Central Electric Power Authority, Ltd.".
Name.

2. The registered office of the company will be situate in Delhi Province.
Office.

3. The objects for which the company is established are—
Objects.

(1) To generate and sell electric energy; in particular and without prejudice to the generality of this object,

(2) To acquire any generating stations and plants and distribution mains in Delhi.,

(3) To carry on the business of electricians, mechanical engineers and manufacturers, workers and dealers in electricity, motive power and light, and any business in which the application of electricity or any like power, or any power that can be used as a substitute therefor, is or may be useful, convenient or ornamental, or any other business of a like nature.

(4) To manufacture and produce and, either as principals or agents, trade and deal in any articles belonging to or connected with any such business, and all apparatus, appliances and things used in connection therewith, or with any inventions, patents or privileges for the time being belonging to the company.

(5) To produce and accumulate electricity and electro-motive force, or other similar agency, and to supply the same for the production, transmission or use of any lighting, heating, motive or other power as may be thought advisable.

(6) To make experiments in, and public exhibitions of, electric force and lighting, and electrical machinery and appliances.

(7) To let out on hire all or any of the property of the company (whether real or personal), including every description of apparatus or appliances of the company.

(8) To carry on the business of suppliers of light, heat and power and carriers of passengers and goods.

(9) To manufacture, put up and use telephones, telegraphs (wireless or other), phonographs, dynamos, accumulators, lamps, and all apparatus now known or that may hereafter be invented, connected with the generation, accumulation, distribution, supply and employment of electricity or any power that can be used as a substitute therefor, including all cables, wires or appliances for connecting apparatus at a distance with other apparatus and including the formation of exchanges or centres.

(10) To acquire and deal with any property real or personal, to carry on any trade or business, to erect any buildings, and generally to do all acts and things, which, in the opinion of the company or the directors, may be conveniently, or profitably, or usefully acquired and dealt with, carried on, erected or done by the company in connection with the businesses aforesaid.

(11) To do all or any of the following acts or things, *viz.*, to pay all expenses of and incidental to the formation of the company; to sell, lease or dispose of any property of the company; to draw, accept and negotiate negotiable instruments; to borrow money on the security of the undertaking or on all or any of the assets of the company or without security; to invest moneys of the company in such manner as the Directors determine.

(12) To do all such other things as are incidental or conducive to the attainment of the above objects or any of them.

4. The liability of the members is limited.

5. Every member of the company undertakes to contribute to the assets of the company in the event of its being wound up while he is a member, or within one year afterwards, for payment of the debts and liabilities of the company contracted before he ceases to be a member, and the costs, charges, and expenses of winding up the same and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required, not exceeding hundred rupees.

We the undersigned are desirous of being formed into a company in pursuance of this Memorandum of Association.

Name	*Address.*	*Description*

Dated the day of 1937.

Witness to the above signatures :—

APPENDIX VI-B.

Draft Articles of Association

Membership.

Number of members.

1. For the purpose of registration the number of members of the company is declared to be 100 but the Directors may register an increase in the number of members whenever they think fit.

Membership.

2. The subscribers hereto shall be the first members, and it shall rest with the Directors to determine the terms and conditions on which subsequent members shall from time to time be admitted.

General Meetings.

First general meeting.

3. The first general meeting shall be held at such time, not being less than one month or more than three months after the incorporation of the company, and at such place, as the Directors may determine.

Subsequent general meetings.

4. A general meeting shall be held once in every year at such time (not being more than fifteen months after the holding of the last preceding general meeting) and place as may be prescribed by the company in general meeting, or in default, at such time in the month following that in which the anniversary of the company's incorporation occurs and at such place as the Directors shall appoint. In default of a general meeting being so held, a general meeting shall be held in the month next following, and may be convened by any two members in the same manner, as nearly as possible, as that in which meetings are to be convened by the Directors.

Ordinary and extraordinary meetings.

5. The above-mentioned general meetings shall be called ordinary meetings; all other general meetings shall be called extraordinary.

Convening Extraordinary meeting.

6. The Directors may, whenever they think fit, and they shall on a requisition made in writing by any two or more members, convene an extraordinary general meeting.

Requisition by members.

7. Any requisition made by the members must state the object of the meeting proposed to be called, and must be signed by the requisitionists and deposited at the registered office of the company.

Meetings convened by members.

8. On receipt of the requisition the Directors shall forthwith proceed to convene a general meeting, and if they do not proceed to cause a meeting to be held within twenty-one days from the date of the requisition being so deposited, the requisitionists, or any other two members, may themselves convene a meeting.

Proceedings at General Meetings.

Notice of meeting.

9. Seven days' notice at the least, specifying the place, the day, and the hour of meeting, and in case of special business the general nature of the business, shall be given to the members in manner hereinafter mentioned, or in such other manner, if any, as may be prescribed by the company in general meeting; but the non-receipt of such a notice by any members shall not invalidate the proceedings at any general meeting.

Business.

10. All business shall be deemed special that is transacted at an extraordinary meeting, and all that is transacted at an ordinary meeting, with the exception of the consideration of the accounts, balance-sheets, and the ordinary report of the Directors and auditors, and the fixing of the remuneration of the auditors.

Quorum.

11. No business shall be transacted at any meeting unless a quorum of members is present at the commencement of the business. The quorum shall be ascertained as follows (that is to say), if the members of the company at the time of the meeting do not exceed ten in number, the quorum shall be three; if they exceed ten there shall be added to the above quorum, one for every five additional members up to fifty, and one for every ten additional members after fifty, with this limitation, that no quorum shall in any case exceed thirty.

12. If within one hour from the time appointed for the meeting a quorum of members is not present, the meeting, if convened on the requisition of the members shall be dissolved; in any other case it shall stand adjourned to the same day in the following week at the time and place; and if at such adjourned meeting a quorum of members is not present, it shall be adjourned *sine die*.

When no Quorum present.

13. The chairman of the Directors shall preside as chairman at every general meeting of the company if present or if at any meeting the chairman is not present at the time of holding the same, the members present shall choose some one of their number to be chairman of that meeting.

Chairman.

14. The chairman may, with the consent of the meeting, adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

Adjournment.

15. At any general meeting, unless a poll is demanded by at least three members, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the company, shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against the resolution.

Declaration by chairman and entry in minute book.

16. If a poll is demanded in manner aforesaid, the same shall be taken in such manner as the chairman directs, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll was demanded.

Polls.

Votes of Members.

17. Every member shall have one vote and no more except the chairman who shall have a second or casting vote if the voting is equal.

Votes.

18. No member shall be entitled to vote at any meeting unless all moneys due from him to the company have been paid.

Restriction on Voting.

19. On a poll votes may be given either personally or by proxies; a proxy shall be appointed in writing under the hand of the appointor, or if such appointor is a corporation, under its common seal.

Proxies.

20. No person shall act as a proxy unless he is a member or unless he is appointed to act at the meeting as proxy for a corporation. The instrument appointing him shall be deposited at the registered office of the company not less than forty-eight hours before the time of holding the meeting at which he proposes to vote.

Deposit of proxy papers.

21. Any instrument appointing a proxy shall be in the following form :—

Form of instrument appointing proxy.

Delhi Central Electric Powers Authority, Limited.

I of being a member of the Delhi Central Electric Power Authority Ltd., hereby appoint of as my proxy, to vote for me and on my behalf at the general meeting of the Authority to be held on the day of and at any adjournment thereof.
Signed this
day of

22. The Directors shall be; a nominee of Government; a representative of each of the following bodies :—the Delhi Municipal Committee, the New Delhi Municipal Committee, the Punjab Chamber of Commerce, the Delhi Electric Supply and Traction Company, Ltd., the Delhi Cantonment Authority and one person who shall be nominated by the industrial consumers of electric energy in Delhi Province. The Chairman shall be nominated from among these representatives by the Government. In case of equality of voting the Chairman shall have a second or casting vote.

First Directors.

23. The business of the company shall be managed by the Directors, who may exercise all such powers of the company as are not by law or by these articles required to be exercised by the company in general meeting; but no regulation made by the company in general meeting shall invalidate any prior act of the Directors which would have been valid if that regulation had not been made.

Powers of Directors.

Auditors.

24. The auditors shall be elected and their remuneration fixed annually by the company in general meeting.

Election of Auditors.

Notices.

25. A notice may be given by the company to any member either personally, or by sending it by post to him to his registered address.

Service of Notices.

26. Where a notice is sent by post, service of the notice shall be deemed to be effected by properly addressing, prepaying and posting a letter containing the notice, and unless the contrary is proved, to have been effected at the time at which the letter would be delivered in the ordinary course of post.

Time of Service.

Names, addresses and descriptions of signatories to Memorandum of Association.

Dated the day of

Witness to the above signatures

of, etc.

APPENDIX VII.

Estimate of consumption of Electricity in Delhi Province.

In Units.

Class of Consumer.	1935.			1940.			1945.		
	Old Delhi.	New Delhi	Total	Old Delhi.	New Delhi.	Total.	Old Delhi.	New Delhi.	Total.
Domestic -Lights and fans .	4,089,043	1,818,694	5,907,737	6,000,000	2,200,000	8,200,000	7,500,000	2,500,000	10,000,000
Power—									
General users . . .	3,455,396	1,189,972	4,645,368	6,000,000	1,500,000	7,500,000	8,000,000	1,800,000	9,800,000
Large industrial mills . .	..	..	..	6,000,000	..	6,000,000	25,000,000	..	25,000,000
Pumping—									
Irrigation . . .	..	2,903,518	2,903,518	..	3,803,518	3,803,518	..	4,100,000	4,100,000
Filtered Water . .	..	..	..	..	3,920,000	3,920,000	..	5,400,000	5,400,000
Sewage . . .	..	893,831	1,602,006	1,000,000	1,001,000	2,100,000	1,250,000	1,300,000	2,550,000
Public Lighting . . .	708,175	..	..	..	5,343,600	5,343,600	..	6,240,000	6,240,000
Traction	811,144	..	811,144	980,000	..	980,000	1,200,000	..	1,200,000
Cantonments . . .	..	370,461	370,461	..	400,000	400,000	..	42,5000	425,000
Total Actual Consumption	9,063,758*	7,176,476	16,240,234	19,980,000	18,267,118	38,247,118	42,950,000	21,765,000	64,715,000
Add losses in conversion mains and auxiliary plant . .	1,359,563	2,380,715	3,740,278	2,997,000	2,740,068	5,737,068	6,442,500	3,264,750	9,707,250
Total Units Generated .	10,423,821	9,557,191	19,980,512	22,977,000	21,007,186	43,984,186	49,392,500	25,029,750	74,422,250

	1935.	1940.	1945.
Estimated maximum demand . .	6,000 KW	9,000 KW	12,000 KW
Estimated Load Factor . . .	38%	55·79%	70·8%

Figure for old Delhi 1,413,629 includes units purchased from New Delhi Municipal Committee.

APPENDIX VIII.

Delhi Central Electric Power Authority.

Estimate of Expenditure on Capital Account.

Heading.	Item.	Details.	Estimated Capital Expenditure.	Total.
			Rs.	Rs.
I		*Assets of the New Delhi Municipal Committee to be acquired by the Authority.*		
	1	Power House Building including quarters .	4,84,109	
	2	Power House Plant and equipment as at present existing	4,44,382	
	3	High Tension Distributing Mains . .	2,54,996	
				11,83,487
II		*Assets of the Company to be acquired by the Authority—*		
	4	12,575 yds. 1 sq. in. Extra High Tension underground cables	..	68,115
III		*Plant and equipment ordered by the New Delhi Municipal Committee and expected to be in service in* 1937—		
	5	Complete Boiler Plant and sundry equipment :	3,10,000	
	6	Turbo-alternator with auxiliary equipment and switchgear.	2,75,000	
	7	Miscellaneous Workshop Plant, testing equipment, etc.	20,000	
				6,05,000
IV		*Extensions to Extra High Tension Distribution System to be taken on hand before the end of* 1938—		
	8 (1)	E. H. T. underground distributing main from the Central power station to the Company's generating station, 6,460 yds. of 0·3 sq. in. cable	93,000	
	(2)	E. H. T. underground distributing main from Central power station to existing industrial area in Subzimandi. Two cables each 8,500 yds. long with a cross sectional area of ·3 sq. in.	2,30,000	
	(3)	Extension of existing overhead transmission line to Mahrauli (4·5 miles) . . .	25,000	
	(4)	E. H. T. overhead transmission line to new Sewage Works	60,000	
	(5)	E. H. T. overhead transmission line to waterworks site (Chandrawal)	25,000	
	6)	E. H. T. Distributing Main, partly underground and partly overhead from power station to Shahdara	55,000	
				4,88,000
				23,44,602

Heading.	Item.	Details.	Estimated Capital Expenditure.	Total.
			Rs.	Rs.
		Brought forward .	23,44,602	
V		*Second stage of development to be taken in hand in 1939—*		
	9	Additional steam raising plant consisting of water tube boiler and equipment of sufficient capacity to raise 66,000 lbs. of steam per hour	4,10,000	
	10	Additional 6,000 KW Turbo-Alternator set complete with all accessories . . .	3,00,000	
	11	Three and three-quarters miles railway siding from Nizamuddin Railway Station to power station	2,10,000	
	12	Alterations and additions to power station to accommodate additional boiler plant. .	25,000	
	13	Share of cost of river training works . .	1,50,000	
	14	Coal handling and transport plant . .	75,000	
				11,70,000
VI		*Extension to E. H. T. Distribution System to be taken in hand in 1939—*		
	15	Extension of E. H. T. distributing main from existing industrial area to subsidiary areas.	85,000	
	16	Extension of E. H. T. distributing main from existing industrial area to proposed new industrial area	1,40,000	
				2,25,000
VII		*Third stage of development to be taken in hand in 1941-42—*		
	17	Additional steam raising plant of same type and capacity as that provided in Stage II .	4,10,000	
	18	Additional Turbo-Alternator Set of same type and output as that provided in Stage II .	3,00,000	
	19	Alterations additions to power station building	50,000	
				7,60,000
VIII	20	*Working Capital*	..	1,00,000
		TOTAL CAPITAL REQUIRED	..	45,99,602
		Say Rs. 46 LAKHS.		

EXPLANATORY NOTES.

Valuation of assets of New Delhi Municipal Committee and the Company to be transferred to the Central Authority.

Item No.	Item.	Valuation based on letter No. AW-36, dated the 8th May 1935 from the Government of India, Department of Industries and Labour.	Subsequent additions made by the New Delhi Municipal Committee.	Total value on 1st April 1937.	Depreciation written off.	Net value on 1st April 1937.
		Rs.		Rs.		Rs.
1	Power Station Buildings . .	5,10,000	Rs. 11, 390 (Rs. 390 from 1932-33 to 1935-36 and Rs. 11,000 in 1936-37).	5,21,390	Rs. 37,281 (Rs. 31,545 from 1932-33 to 1935-36 and Rs. 5736, provided for 1936-37).	4,84,109
2	Power House Plant . .	7,20,000	Rs. 44,367 (additions Rs. 5,633 less Rs. 50,000 value of boiler sold and written off).	6,75,633	Rs. 2,31,251 (Rs. 1,71,320 from 1932-33 to 1935-36 and Rs. 59,931 provided for 1936-37).	4,44,382
3	High Tension Distributing Mains.	2,66,700	Rs. 19,372 (Rs. 261 in 1934-35 and Rs. 19,111 in 1935-36).	2,86,072	Rs. 31,076 (Rs. 12,004 from 1932-33 to 1934-35, Rs. 9,536 in 1935-36 and Rs. 9,536 provision for 1936-37).	2,54,996

4	Company's underground E. H. T. Mains.	The valuation of the distributing mains laid by the Company in 1926 to link its generating station with the riverside station of the New Delhi Municipal Committee has been arrived at as follows :—		
		Cost of Cables including laying, jointing and connecting, etc.	1,02,172	
		Life of cables 30 years. Period cables have been in use 10 years.		
		Depreciation to be written off.	34,057	68,115
		Value on 1st April 1937.		

NOTE.—The above valuations have been based on the assumption that assets would be taken over sometime during 1937 at their values on the 1st April 1937 If the taking over does not take place until a later period some adjustments in the valuation will be necessary.

5 & 6.—The expenditure on these items has been based on the actual cost at which orders have been placed.

7.—This provision is intended to cover the cost of miscellaneous workshop plant and testing equipment which the authority will require.

8.—The expenditure likely to be incurred on the extensions of the Extra High Tension Distributing system has been estimated on the present day prices with reasonable allowances to cover increases in the cost of materials. It is based on the assumption that large industrialists will give their support to the generating station, but if demands from large industrialists are not forthcoming, some adjustments in item 8 (2) will have to be made.

9 & 10.—The expenditure on these items of additional equipment has been based on prices at which similar equipment has been purchased.

11.—The cost of the siding has been estimated at Rs. 56,000 per mile.

12.—Some alterations and additions to the existing building will be required to accommodate the proposed boiler, and the sum provided is intended to cover the cost of these works.

13.—It is considered that river training works may be necessary to control the course of the river Jumna, and it is estimated that the capital expenditure on these works will amount to Rs. 3,00,000. It is proposed that the capital expenditure should be shared equally between the Irrigation Pumping Installation and the Central power station, the two utilities likely to benefit from the training works.

14.—The sum provided for coal handling and transport plant is intended to cover the cost of providing secondhand rolling stock or other transport appliances for the transport of the coal from the railway station at Nizamuddin to the Central power station.

15 & 16.—The expenditure for the extension of the E. H. T. distribution system proposed to be taken in hand in 1939 has been based on the assumption that during the year a decision will be reached in regard to the development of the proposed new industrial area.

17, 18 & 19.—The expenditure to be incurred during the third stage of development has been based on the cost of a 6,000 KW steam raising and generating plant, and a suitable provision to meet the cost of alterations to the power station building to accommodate the plant has been included.

20.—It is estimated that a sum of Rs. 1 lakh will be required as working capital, and provision for this amount has been made.

APPENDIX IX.

Estimate of annual expenditure and average cost in annas in which energy can be supplied in bulk.

Item.	1st Stage. 19,980,512 units egnerated. 16,240,234 units sold. Expenditure.	Cost in annas per unit generated.	2nd Stage. 43,984,000 units generated. 38,247,118 units sold. Expenditure.	Cost in annas per unit generated.	3rd Stage. 74,422,000 units generated. 64,715,000 units sold. Expenditure.	Cost in annas per unit generated.
	Rs.		Rs.		Rs.	
Direct Charges.						
1. Coal	2,63,675	·2111	5,38,260	·1959	9,11,204	·1959
2. Water	4,470	·0036	9,840	·0036	16,640	·0036
3. Oil, waste and other stores	6,485	·0052	6,754	·0025	7,200	·0015
4. Wages find salaries	36,672	·0293	36,672	·0134	41,500	·0090
5. Repairs and maintenance	6,100	·0050	10,386	·0038	12,000	·0026
6. Management	23,544	·0189	23,544	·0086	27,000	·0058
7. Rent, Rates and Taxes	3,000	·0025	3,000	·0011	5,000	·0010
8. Share of cost of maintaining river training works	..	..	15,000	·0054	5,000	·0010
TOTAL COST OF GENERATION	**3,43,946**	**·2756**	**6,43,456**	**·2343**	**10,25,544**	**·2204**
9. Distribution	6,000	·005	6,600	·0025	7,200	·0016
TOTAL COST, GENERATION AND DISTRIBUTION	**3,49,946**	..	**6,50,056**	..	**10,32,744**	..
Cost per unit generated	..	*·2806*	..	*·2368*	..	*·222*
Cost per unit sold	..	*·3452*	..	*·2723*	..	*·2553*
Indirect charges.						
1. Interest on capital	91,672	..	1,43,985	..	1,72,500	..
Less interest earned on Depreciation Fund investment	..	..	7,685	..	35,000	..
Net interest charge	91,672	·0903	1,36,300	·0570	1,37,500	·0340
2. Depreciation provision	1,02,794	·1012	1,53,394	·0641	1,89,394	·0468
3. Contribution to Renewals Reserve, Provident and Leave Funds	20,200	·0199	20,200	·0084	20,200	·0049
TOTAL ESTIMATED EXPENDITURE	**5,64,612**	..	**9,59,950**	..	**13,79,838**	..
Average cost per unit sold	..	*·5566*	..	*·4018*	..	*·3410*

NOTES TO APPENDIX IX.

1. In the above statement the annual cost of supplying energy in bulk from the central generating station has been estimated for three stages of development, and the average cost per unit sold has been given for each stage. The figures of demand given in the Estimate of Consumption exhibited in Appendix VII have been taken as the basis of each stage in these estimates. The following notes will explain how each item of cost has been calculated.

2. *Coal.*—The consumption of coal per unit generated has been estimated at 2 lbs. on the figures of consumption shown in first stage, but as the demand on the central station increases it is anticipated that the coal consumption per unit generated will be reduced, and the expenditure of coal in the second and third stages has been based on a consumption of 1·8 lbs. per unit generated. The price of coal at the central power station in 1935 was Rs. 14·78 per ton, and this rate has been taken for the purpose of the estimate relating to the first stage. It is anticipated that owing to various circumstances the price of coal will increase in the near future, and the estimates of the expenditure on coal in the later stages have been based on coal costing Rs. 15-3-8 at the central power station bunkers. This figure has been arrived at as follows :—

	Rs.	A.	P.
Cost of coal at colliery siding	3	10	0
Railway freight	10	0	0
Departmental charge	0	1	2
Cartage to site including losses	1	8	6
Total	15	3	8

It may be found that the above estimate of cost of coal is on the generous side, and some reduction may be possible, but it is considered desirable to frame the estimates on a basis which provides some margin for safety.

3. *Water.*—The make-up water for the boiler feed is obtained from the municipal filtered water supply. It has been assumed that the quantity of water required will be proportional to the load on the station. The expenditure on feed water in 1935-36 in the New Delhi Municipal Station was Rs. 2,460 for the generation of 10,970,820 units, and the expenditure at the different stages of development has been calculated on this figure. It will be noted that it is estimated that the expenditure on water in the third stage will reach the substantial sum of Rs. 16,640. It should be possible to instal a small filter plant in the central generating station from which suitable water for boiler feed can be obtained at a much lower cost, and some saving on this item of expenditure can be anticipated. This, however, is a matter that will require some detailed examination, and for the present the cost involved in obtaining water from the existing source has been included.

4. *Oil waste and running stores.*—The expenditure on oil waste and running stores incurred in the year 1935-36 in the New Delhi Municipal power station amounted to Rs. 5,404. This item of expenditure will not vary in proportion to the demand on the station, but there will be some increase when the proposed additional equipment is installed in the central generating station. It is estimated that the expenditure on this item will increase by 20, 25 and 33-1/3 per cent. in respect of the periods for which the estimate has been framed.

5. *Wages and salaries.*—It is considered that the following staff will be required in the central generating station :—

	Rs.
Engine Room—	
One Power Station Superintendent at Rs. 700 per month	8,400
Three Shift Engineers at Rs. 200 per month	7,200
Three Switchboard Attendants at Rs. 75 per month	2,700
Three Drivers at Rs. 75 per month	2,700
Three Pump Attendants at Rs. 40 per month	1,440
Six Cleaners at Rs. 17 per month	1,224
Wages and Salaries in Engine Room	23,664

Boiler Room—

	Rs.
Three Serangs at Rs. 60 per month	2,160
Twentyfour coolies at Rs. 20 per month	5,760
Fifteen coal-handling coolies at Rs. 18 per month	3,240
Total wages in Boiler Room	**11,160**

General—

	Rs.
Two Mechanic Mistries at Rs. 60 per month	1,440
Two coolies at Rs. 17 per month	408
Total	**1,848**

Total Salaries and Wages—

	Rs.
Engine Room	23,664
Boiler Room	11,160
General	1,848
Total Wages and Salaries	**36,672**

When the number of units generated reaches the figure estimated during the third stage of development, some additional coolies will be required to handle the additional coal that will be consumed. The extra cost will be Rs. 4,824, making a total expenditure on account of salaries and wages of Rs. 41,496 or rounded Rs. 41,500.

6. *Repairs and maintenance and management.*—The expenditure on repairs and maintenance and management during the stages for which the estimate has been framed is estimated as follows :—

Repairs and Maintenance.

Item.	1st Stage.	2nd Stage.	3rd Stag.
Repairs to Buildings	1,240	1,500	1,500
Repairs and maintenance of plant	4,039	7,965	9,580
Painting chimney	255	255	255
Boiler Inspection	300	400	400
Telephone and Clock	266	266	266
Total	**6,100**	**10,386**	**12,001**

Management.

Item.	1st Stage.	2nd Stage.	3rd Stage.
Engineer and General Manager at Rs. 1,500 per month	18,000	18,000	18,000
One Accountant and Head Clerk at Rs. 120 per month	1,440	1,440	1,440
One General Clerk	720	720	720
Two General Clerks	..	..	1,440
Two Peons	384	384	384
One Peon	..	..	192
Contingencies and Audit	3,000	3,000	4,824
Total	**23,544**	**23,544**	**27,000**

It will be noted that no provision has been made for Directors' remuneration. It is proposed that the Chairman of the Authority shall be a Government nominee, and that the six Directors will be representatives of the various parties interested in the distribution or use of the energy supplied from the central generating station, and it is considered reasonable to assume that all will be willing to serve on the Board of the Authority without remuneration. The duties to be undertaken by the

Directors will not be of an onerous character, and it is anticipated that the occasions on which the Board of the Authority will be required to meet will not exceed four in each year.

A large management staff will not be required for the Central Power Authority as the number of consumers will be very small, and the accounts of the undertaking will be of a very simple character and in no way voluminous.

7. *Rent, rates and taxes.*—The expenditure on rents, rates and taxes has been estimated at Rs. 3,000 per annum in the first and second stages, and at Rs. 5,000 in the third stage. It has been assumed that a lease of the land on which the power station and connected buildings stand will be obtained from the Government. The area is approximately 6·24 acres, but its value is not considered high, and it is not unreasonable to expect that a lease for a suitable period will be granted at a nominal annual rental.

8. *Share of maintenance of river training works.*—The Superintending Engineer, Central Public Works Department, estimated the capital cost of river training works on the reach of the river between the Jumna Bridge and the power station at Rs. 3,00,000. Provision has been made in the estimate of expenditure on the Capital Account to finance half the expenditure as it is considered that the total cost should be shared between the two utilities benefited by these works, namely, the central generating station and the irrigation pumping installation. The Superintending Engineer estimated that during the first year or so after construction the expenditure on maintenance of the training works might be estimated at Rs. 30,000, but thereafter Rs. 10,000 a year would suffice. It is suggested that the cost of maintenance of these works should be shared in the same way as the capital cost, and, as it is expected that the training works would be found to be necessary from 1939 onwards, sums of Rs. 15,000 and Rs. 5,000 have been included in the estimates relating to the second and third stages respectively. The Chief Engineer, Central Public Works Department, who was consulted informally in regard to the cost of the proposed training works, has expressed his general acceptance of the Superintending Engineer's estimates.

9. *Distribution.*—It is proposed that the Central Power Authority should only be responsible for the maintenance of such part of the extra high tension distributing system as is used for the supply to consumers directly connected to the central power station. The maintenance of all other sections of the distribution systems in the province will be undertaken by the respective owners of the systems.

The estimated expenditure on repairs and maintenance of the portion of the extra high tension distribution system to be taken over by the Authority is as follows :—

	1st stage.	2nd stage.	3sd stage.
	Rs.	Rs.	Rs.
One Supervisor at Rs. 150 per month	1,800	1,800	1,800
One E. H. T. Jointer at Rs. 75 per month	900	900	900
Two Linesmen at Rs. 30 per month	720	720	720
Six coolies at Rs. 17 per month	1,224	1,224	1,224
Material at Rs. 100 per month	1,200	1,200	1,200
Additional material	..	600	1,200
	5,844	6,444	7,044
Rounded to Rs.	6,000	6,600	7,200

10. *Indirect charges.*—The Central Power Authority, in addition to meeting the actual direct expenditure incurred on the generation and distribution of energy, must make provision for :—

(*a*) Payment of interest on the capital in the undertaking;

(*b*) Depreciation of its assets;

(*c*) A small Renewals Reserve;

(*d*) Provident and Leave Funds for its staff.

11. *Interest charges.*—It is proposed that the Central Power Authority should obtain the finance required for the undertaking by means of a loan from the Government of India. It is understood that such a loan will be granted, and interest will be charged at the rate of 3½ per cent. per annum.

Charges on account of interest in the periods covered by the estimate will be as follows :—

	Rs.
Capital Expenditure up to 1938—	
Assets to be taken over from New Delhi Municipal Committee	11,83,487
Assets to be taken over from the Company . . .	68,115
Additional capital expenditure in 1937	6,05,000
Capital expenditure on acount of extension of extra high tension distributing system	4,88,000
Working capital	1,00,000
Total capital expenditure during first period .	**24,44,602**
Interest charges will amount to $\frac{24,44,602 \times 3 \cdot 75}{100}$ . .	91,672
Capital expenditure up to end of 1938—	
Expenditure up to end of 1938	24,44,602
Additional capital expenditure on plant and equipment in 1939	11,70,000
Additional capital expenditure in 1939 on extra high tension distributing system	2,25,000
	38,39,602
Interest charges will amount to $\frac{38,39,602 \times 3 \cdot 75}{100}$ . .	1,43,986
Capital expenditure at end of 1941-42	**46** lakhs.
Interest charges will be $\frac{46 \text{ lakhs} \times 3 \cdot 75}{100}$	1,72,500

12. *Depreciation.*—It is proposed to adopt the straight line method for estimating the annual depreciation provision to be made for each class of asset, and the folllowing periods of life are considered reasonable :

	Years.
Buildings	100
Plant	20
Mains E. H. T. overhead and underground	30

In order to be on the safe side it will be assumed that at the end of the estimated periods of useful life the assets will have no residual value.

It is proposed to transfer to the Central Power Authority certain assets of the New Delhi Municipal Committee at the present day value of these assets. The present day value in the case of plant in the power station is considerably lower than the replacement cost of the plant and equipment, and in order that the contributions to depreciation fund may be such that the fund will be sufficient to meet the cost of replacement when this item of the assets comes to an end of its useful life, the depreciation provision on the item of assets transferred must be based on the replacement cost and not on the taking-over cost. The annual provision to cover the depreciation in the assets taken over from the New Delhi Municipal Committee may be estimated as follows :—

(*a*) *Power House Buildings.*

	Rs.
Original cost	6,14,000
Add additions since 1932	11,390
Total .	**6,25,390**

Cost of building construction in New Delhi has fallen by approximately ~~75~~ per cent. since the buildings were constructed, and the present day replacement value of the buildings can be estimated at Rs. 6,25,390—30 per cent.=Rs. 4,37,773. The building was constructed in 1925, and ten years of its useful life have already been spent. The annual depreciation provision to be set aside from the asset is therefore

Rs. $\frac{4,37,773}{90}$ = Rs. 4,864.

(b) Power Station Plant and Equipment.

Certain plant and equipment in the existing power station is obsolete and has no value. The replacement value of the plant and equipment which is useful to the Central Power Authority may be estimated as follows :—

	Rs.
Two water tube boilers with chimney feed. pumps, etc, installed in 1921 and 1924	2,60,000
One water tube boiler installed in 1929	1,00,000
Cost of erection, brickwork, flues, etc.	80,000
One 1,500 KW Turbo-Alternator Set 1924	1,25,000
Foundation cables and erection	25,000
One 3,000 KW Turbo-Alternator Set with cables and switch-gear	1,30,000
Foundations and erection	30,000
Switchgear	60,000
Cables, connection and erection	50,000
Sundries, Crane, etc.	20,000
	8,80,000

It will be observed that a large part of the lives of two of the water tube boilers and the 1500 KW Turbo Alternator set is already spent, and as the estimate of capital expenditure provides funds for replacing these items of equipment which are obsolete and will not form useful units in the central power station, no provision for depreciation need be made for these items. Omitting these items, the replacement cost on which provision for depreciation should be made is :—

		Rs.
Total replacement value		8,80,000
Deduct value of items of assets, the replacement of which is provided for in the capital account, *i.e.*,—		
	Rs.	
2 water tube boilers, chimney, feed-pumps, etc.	2,60,000	
Cost of erection and brickwork . . .	55,000	
One 1,500 KW Turbo-Alternator . . .	1,25,000	
Foundations and cables	25,000	
		4,65,000
Net replacement value . .		**4,15,000**

The period of useful life yet remaining for assets which will be absorbed permanently in the new undertaking is 13 years, and an annual depreciation provision of Rs. 31,923 or say Rs. 32,000 will be required.

13. *High Tension Mains.*—The present day replacement cost of the portion of the extra high tension distribution system which the Central Power Authority will take over is estimated at its original cost, that is, Rs. 2,86,072, and the annual depreciation provision which must be made for these items of the assets will be Rs. $\frac{2,86,072}{20}$ = 14,304.

We may explain that certain subsidiary E. H. T. mains which are used by the Committee to supply those consumers whose annual estimated consumption is less than 500,000 units, *e.g.*, the Cantonment Authority, the Agricultural Research Institute, etc , will not be taken over by the Central Authority, and the cost of such mains have not been included in our estimates.

In order to link up the generating station of the Company with the Government generating station (the New Delhi Municipal Committee's Station) at the Delhi Gate, the Company in 1926 laid two underground extra high tension cables, each of 1 sq. in. cross-sectional area. The total combined length of these cables is 12,575 yds., and the cost including laying, jointing, etc., amounted to Rs. 1,02,172. These cables have been in service since 1926, and the Company state that only on one occasion when one of them was damaged by a steam roller, has any trouble been experienced. It is proposed that these cables should be acquired from the Company by the Central Generating Authority who will deliver energy in bulk at the busbars in the Company's generating station. It is considered that the present day replacement value of these cables will closely approximate to their original cost, and the cost of acquisition is estimated at the original cost less depreciation for the period for which the cables have been in use. We have taken the period of useful life of cables at 30 years, and as these cables have been in service for at least ten years, we consider that a fair taking-over valuation will be the original cost less 33-1/3 per cent., or Rs. 68,115. The annual depreciation to be provided for on account of these cables will be Rs. $\frac{1,02,172}{20}$ = Rs. 5,109.

The total provision for depreciation for the items of assets transferred from the present licensees to the Authority will be—

	Rs.
New Delhi Municipal Committee—	
Buildings	4,864
Plant and equipment	32,000
E. H. T. Mains	14,304
Company—	
E. H. T. Mains	5,109
Total	**56,277**

Provision for depreciation on the additional plant and extra high tension mains which it is anticipated will fall due during the first stage of development will be—

	Rs.
Plant and equipment Rs. 6,05,000 at 20 years life	30,250
Extensions to the E. H. T. Distribution System Rs. 4,88,000 at 30 years life	16,267
Total	**46,517**
Add depreciation on assets transferred from existing licensees	56,277
Total	**1,02,794**

The depreciation provision during the second stage of development will be as follows :—

	Rs.
Depreciation on plant and equipment in use up to 1938	1,02,794
Depreciation on plant and equipment installed in 1939—	
Rs. 7,10,000 at 20 years life	35,500
Rs. 2,10,000 at 100 years life	2,100
Rs. 25,000 at 100 years life	250
Rs. 1,50,000 at 100 years life	1,500
Rs. 75,000 at 20 years life	3,750
Extensions to the E. H. T. distribution system Rs. 2,25,000 at 30 years life	7,500
	1,53,394

The depreciation provision during the third stage will be—

	Rs.
Depreciation provision on plant and equipment in use up to 1939	1,53,394
Provision for plant and equipment installed after 1939—	
Plant and equipment Rs. 7,10,000 at 20 years life	35,000
Buildings Rs. 50,000 at 100 years life	500
Total provision for depreciation	1,89,394

It is proposed to invest the funds which will accumulate in the Depreciation Fund Account in approved Trustee Stock.

The interest which will be earned by these investments will be treated as revenue and will be shown as such in the balance sheet of the Authority. For the purpose of the estimate of the annual expenditure and average cost per unit of bulk supply, the interest on the depreciation fund investments has been accounted for by a reduction in the interest charges payable on the total capital in the undertaking. It is anticipated that it will be possible to constitute the new Central Power Authority by the 1st April 1938, and the following table shows the position of the depreciation fund from 1938-39 to 1944-45, and the interest accruing therefrom on the assumption that 3 per cent. interest will be earned :

Depreciation Fund.

Year.	Contribution.	Amount at credit of Fund.	Interest at 3 per cent per annum.
	Rs.	Rs.	Rs.
1938-39	1,02,794	1,02,794	3,083
1939-40	1,53,394	2,56,188	7,685
1940-41	1,53,394	4,09,582	12,287
1941-42	1,89,394	5,98,976	17,969
1942-43	1,89,394	7,88,370	23,651
1943-44	1,89,394	9,77,764	29,332
1944-45	1,89,394	11,67,158	35,014

14. *Renewals reserve.*—It is considered that the Central Power Authority should establish a Renewals Reserve Fund to meet unforeseen demands for minor renewals and repair over and above the provision made under working costs. A comparatively small fund will suffice for this purpose, and it is proposed to contribute an annual sum of Rs. 12,000.

15. *Provident and Leave funds.*—In order to establish a provident or insurance fund from which payments may be made to the members of the staff of the Authority (or their dependants) on retirement, and also to finance the cost of leave granted to the staff, it is proposed to set aside small sums annually for these purposes. It is estimated that 10 per cent. of the annual cost of the staff employed namely, Rs. 6,200 will suffice for such a Provident Fund, and a lump sum of Rs. 2,000 per annum is suggested as provision to meet leave granted to the superior staff of the Authority.

APPENDIX X.

Estimate of annual expenditure and average cost in annas at which energy can be sold if purchased from the Punjab hydro-electric scheme at 3·5 pies per unit.

(Demand 43,984,000 units.)

Item.		Expenditure.	Cost per unit at Central Authority's Power Station.
	Direct Costs.	Rs.	Rs.
1	Cost of 43,984,000 units at 3·5 pies per unit	8,01,792	·2917
2	Coal	13,000	·0047
3	Water, oil waste and stores	900	·0003
4	Wages and salaries	21,132	·0077
5	Repairs and maintenance of plant	7,731	·0028
6	Management expenses	23,544	·0086
7	Rents, Rates and Taxes	3,000	·0011
8	Share of cost of maintaining river training works	15,000	·0054
	Total cost at Central Authority's generation station.	**8,86,099**	**·3223**
9	Distribution	6,600	·0025
	Total cost, generation and distribution.	**8,92,699**	..
	Cost per unit at power station	..	·3248
	Cost per unit sold	..	·3735
	Indirect Charges.		
1	Interest charges at 3¾ per cent. on Rs. 26,70,000	1,00,125	
	Less interest on depreciation investment	6,390	
	Net interest charge	93,735	
	Cost per unit sold	..	·0392
2	Depreciation provision	1,10,294	
	Cost per unit sold	..	·0461
3	Contribution to Renewals Reserve, Provident and Leave Funds	15,000	
	Cost per unit sold	..	·0063
	Total Annual Expenditure	**11,11,728**	
	Average cost per unit sold	..	**·4651**

The above estimate shows the average cost at which energy can be sold if a bulk supply is obtained from the Punjab hydro-electric scheme.

The following note explains how each of the items in the estimate has been calculated :

Direct Charges.—(1) The number of units to be purchased has been based on the estimated demand during the second stage of development.

(2) The consumption of coal for maintaining the steam station in readiness to be brought into service has been estimated on the assumption that the station will only be brought into use for a period of 5 days during the year, and that during the remaining days steam pressure will be maintained in a boiler.

(3) The cost of water, oil waste and stores has been estimated on the same basis as the coal consumption.

(4) The expenditure on wages and salaries has been estimated as follows :—

	Rs.
Wages an salaries :—	
Power Station Superintendent	8,400
One Shift Engineer	2,400
Two Switchboard Attendante	1,800
Two Drivers	1,800
Two Attendants	960
Two Cleaners	408
Two Serangs	1,440
Eight coolies	1,920
Five coal handling coolies	1,080
One Mistri	720
One cooly	204
	21,132

(5) *Repairs and maintenance.*—A reduction of Rs. 2,655 has been estimated in this head as the repairs and maintenance of the plant in the steam station will not be so heavy.

(6), (7) and (8). *Management; Rents, Rates and Taxes and Share of cost of maintaining River Training Works.*—No reductions in these items are anticipated.

(9) No saving will be secured in the expenditure on distribution.

Indirect Charges.—The capital expenditure which the Central Power Authority will have to meet if supply is taken from the Punjab hydro-electric scheme is estimated as follows :—

Capital cost if hydro-electric—link is established.

	Rs.
Assets of New Delhi Municipal Committee to be transferred	11,83,487
Assets of Company to be acquired	68,115
New Plant and Equipment on order	6,05,000
First extension to H. T. main	4,88,000
Second extension to distribution main	2,25,000
Working Capital	1,00,000
	26,69,602
Say	**26,70,000**

Annual gross interest charges at 3¾ per cent. will amount to Rs. 1,00,125.

Interest earned on the Depreciation Fund investment will amount to Rs. 6,390, and net interest charge will be Rs. 93,735.

Depreciation provision is estimated as follows :—

	Rs.
Depreciation on existing assets	56,277
New Plant and equipment	30,250
First extension to distributing system	16,267
Second extension to distributing system	7,500
	1,10,294

Contribution to Renewals Reserve, Provident and Leave Funds has been estimated at Rs. 15,000 as the plant to be installed in the steam station will be reduced if it is used only as a standby.

Estimate of annual expenditure and average cost in annas at which energy can be sold if purchased from the Punjab hydro-electric scheme at 3·5 pies per unit.

(Demand 74,422,000 units.)

Item.		Expenditure.	Cost per unit at Central Authority's Power Station.
	Direct Costs.		
		Rs.	
1	Cost of 74,422,000 units at 3·5 pies per unit	13,56,651	·2917
2	Coal	18,000	·0039
3	Water, oil waste and stores	1,430	·0003
4	Wages and salaries	21,132	·0045
5	Repairs and maintenance of plant	7,731	·0017
6	Management expenses	27,000	·0058
7	Rents, Rates and Taxes	5,000	·0010
8	Share of cost of maintaining river training Works	5,000	·0010
	Total cost at Central Authority's generating station	**14,41,944**	**·3099**
9	Distribution	7,200	·0016
	Total cost, generation and distribution	**14,49,144**	..
	Cost per unit at power station	..	·3115
	Cost per unit sold	..	·3582
	Indirect Charges.		
1	Interest charges at 3¾ per cent. on Rs. 26,70,000	1,00,125	
	Less interest on depreciation investment	22,937	
	Net interest charge	77,188	
	Cost per unit sold	..	·0190
2	Depreciation provision	1,10,294	
	Cost per unit sold	..	·0272
3	Contribution to Renewals Reserve, Provident and Leave Funds	15,000	
	Cost per unit sold	..	·0037
	Total annual expenditure	**16,51,626**	
	Average cost per unit sold	..	·4082

The following note explains how each of the items in the estimate has been calculated.

Direct Charges.—(1) The number of units to be purchased has been based on the estimated demand during the third stage of development.

(2) The consumption of coal has been calculated on the same basis as for the second stage.

(3) The cost of water, oil waste and stores has been estimated at 6 per cent. of the cost.

(4) As for second stage.

(5) As for second stage.

(6), (7) and (8). No reductions in these items are anticipated.

(9) No saving will be secured in the expenditure on distribution.

Indirect Charges.—Interest earned on the Depreciation Fund investment will amount to Rs. 22,937 as shown below, and the net interest charge will be Rs. 77,188.

Depreciation Fund.

Year.	Contribution.	Amount at credit of Fund.	Interest at 3 per cent. per annum.
	Rs.	Rs.	Rs.
1938-39	1,02,794	1,02,794	3,083
1939-40	1,10,294	2,13,088	6,390
1940-41	1,10,294	3,23,382	9,699
1941-42	1,10,294	4,33,676	13,010
1942-43	1,10,294	5,43,970	16,319
1943-44	1,10,294	6,54,264	19,628
1944-45	1,10,294	7,64,558	22,937

Interest charges on the Capital, Depreciation Provision and Contributions to Renewals Reserve and Provident and Leave Funds have been estimated as for the second stage.

APPENDIX XI.

Estimate of annual expenditure and average cost in annas at which energy can be sold if purchased from the Punjab hydro-electric scheme at 2-8 pies per unit.

(Demand 43,984,000 units).

Item.		Expenditure.	Cost per unit at Central Authority's Power Station.
	Direct Costs.	Rs.	
1	Cost of 43,984,000 units at 2·8 pies per unit	6,41,433	·2333
2	Coal	13,000	·0047
3	Water, oil waste and stores	900	·0003
4	Wages and Salaries	21,132	·0077
5	Repairs and maintenance of plant	7,731	·0028
6	Management expenses	23,544	·0086
7	Rents, Rates and Taxes	3,000	·0011
8	Share of cost of maintaining river training works	15,000	·0054
	Total cost at Central Authority's generating station	**7,25,740**	**·2639**
9	Distribution	6,600	·0025
	Total cost, generation and distribution	**7,32,340**	..
	Cost per unit at power station	..	·2664
	Cost per unit sold	..	·3064
	Indirect charges.		
1	Interest charges at $3\frac{3}{4}$ per cent. on Rs. 26,70,000	1,00,125	
	Less interest on depreciation investment	6,390	
	Net interest charge	93,735	
	Cost per unit sold	..	·0392
2	Depreciation provision	1,10,294	
	Cost per unit sold	..	·0461
	Contribution to Renewals Reserve, Provident and Leave Funds	15,000	
	Cost per unit sold	..	·0063
	Total annual expenditure	**9,51,369**	
	Average cost per unit sold	..	·3980

Estimate of annual expenditure and average cost in annas at which energy can be sold if purchased from the Punjab hydro-electric scheme at 2·5 pies per unit.

(Demand 74,422,000 units).

Item.		Expenditure.	Cost per unit at Central Authority's Power Station.
		Rs.	
	Direct Costs.		
1	Cost of 74,422,000 units at 2·8 pies per unit	10,85,321	·2333
2	Coal	18,000	·0039
3	Water, oil waste and stores	1,430	·0003
4	Wages and salaries	21,132	·0045
5	Repairs and maintenance of plant	7,731	·0017
6	Management expenses	27,000	·0058
7	Rents, rates and taxes	5,000	·0010
8	Share of cost of maintaining river training works	5,000	·0010
	Total cost at Central Authority's generating station	**11,70,614**	**·2515**
9	Distribution	7,200	·0016
	Total cost, generation and distribution	**11,77,814**	..
	Cost per unit at power station	..	·2531
	Cost per unit sold	..	·2911
	Indirect Charges.		
1	Interest charges at 3¾ per cent. on Rs. 26,70,000	1,00,125	
	Less interest on depreciation investment	22,937	
	Net interest charge	77,188	
	Cost per unit sold	..	·0190
2	Depreciation provision	1,10,294	
	Cost per unit sold	..	·0273
3	Contribution to Renewals Reserve, Provident and Leave Funds	15,000	
	Cost per unit sold	..	·0037
	Total annual expenditure	13,80,296	
	Average cost per unit sold	..	·3411

APPENDIX XII.

Estimate of annual expenditure and average cost in annas at which energy can be sold if purchased from the Punjab hydro-electric scheme at 2·5 pies per unit.

(Demand 43,984,000 units.)

Item.		Expenditure.	Cost per unit at Central Authority's Power Station.
		Rs.	
	Direct Costs.		
1	Cost of 43,984,000 units at 2·5 pies per unit . .	5,72,708	·2083
2	Coal	13,000	·0047
3	Water; oil waste and stores	900	·0003
4	Wages and salaries	21,132	·0077
5	Repairs and maintenance of plant	7,731	·0028
6	Management expenses	23,544	·0086
7	Rents, rates and taxes	3,000	·0011
8	Share of cost of maintaining River Training Works .	15,000	·0054
	Total cost at Central Authority's generation station .	**6,57,015**	**·2389**
9	Distribution	6,600	·0025
	Total cost, generation and distribution . . .	**6,63,615**	..
	Cost per unit at power station	..	·2414
	Cost per unit sold	..	·2776
	Indirect Charges.		
1	Interest charges at 3¾ per cent. on Rs. 26,70,000 .	1,00,125	
	Less interest on Depreciation investment . .	6,390	
	Net interest charge	93,735	
	Cost per unit sold	..	·0392
2	Depreciation provision	1,10,294	
	Cost per unit sold	..	·0461
3	Contribution to Renewals Reserve, Provident and Leave Funds	15,000	
	Cost per unit sold	..	·0063
	Total annual expenditure	**8,82,644**	
	Average cost per unit sold	..	**·3692**

Estimate of annual expenditure and average cost in annas at which energy can be sold if purcased from the Punjab hydro-electric scheme at 2·5 pies per unit.

(Demand 74,422,000 units.)

Item.		Expenditure.	Cost per unit at Central Authority's Power Station.
	Direct Costs.		
		Rs.	
1	Cost of 74,422,000 units at 2·5 pies per unit	9,69,037	·2083
2	Coal	18,000	·0039
3	Water, oil waste and stores	1,430	·0003
4	Wages and salaries	21,132	·0045
5	Repairs and maintenance of plant	7,731	·0017
6	Management expenses	27,000	·0058
7	Rents, Rates and Taxes	5,000	·0010
8	Share of cost of maintaining river training works	5,000	·0010
	Total cost at Central Authority's generating station	**10,54,330**	**·2265**
9	Distribution	7,200	·0016
	Total cost, generation and distribution	**10,61,530**	..
	Cost per unit at power station	..	·2281
	Cost per unit sold	..	·2623
	Indirect Charges		
1	Interest charges at 3¾ per cent. on Rs. 26,70,000	1,00,125	
	Less interest on Depreciation Investment	22,937	
	Net interest charge	77,188	
	Cost per unit sold	..	·0190
2	Depreciation provision	1,10,294	
	Cost per unit sold	..	·0273
3	Contribution to Renewals Reserve, Provident and Leave Funds	15,000	
	Cost per unit sold	..	·0037
	Total annual expenditure	**12,64,012**	
	Average cost per unit sold	..	·3123

APPENDIX XIII.

EXPLANATORY NOTES.

Estimate of working costs of Company. (See paras. 97 and 100).

Item 1.—The units to be purchased have been estimated on the assumption that the Company will distribute 13,980,000 units, and in order to cover losses, etc., 15 per cent., has been added in order to arrive at the number of units to be purchased.

Item 2.—It has been assumed that the Company's existing power station will be retained as a standby for two or three years, and the annual cost of maintaining it has been estimated as follows :—

Fuel, oil waste and engine room stores have been estimated on the assumption that the station will work for a total period of two weeks during the year.

The expenditure on the proportion of salaries of engineers, superintendents and officers has been estimated as incurred in 1935. Wages and gratuities have been estimated at 50 per cent. of the expenditure in 1935, as a much reduced staff will suffice for operating the plant for the short periods it may be required.

The expenditure on repairs to buildings has been taken at the 1935 figure, while that on repairs and maintenance of plant has been estimated at 33-1/3 per cent. of the 1935 expenditure, as, owing to the much reduced use of the generating plant, the repairs will not be heavy.

Item 3.—The expenditure incurred on distribution in 1935 is shown in the Company's accounts at £12,811 or Rs. 1,70,813. It is estimated that the additional demand will involve some increased expenditure on this head, and an extra of Rs. 15,000 has been allowed to meet this increase.

Item 4.—The expenditure on the attendance and repairs of public lamps in 1935 amounted to £2,334-10-0 or Rs. 31,127. Increased lighting will involve some additional expenditure, and the figure of expenditure in 1935 has been rounded to Rs. 35,000.

Item 5.—The expenditure on Rents, Rates and Taxes in 1935 was £275, and the same amount has been estimated for 1940.

Item 6.—The management expenses in 1935 amounted to £9,963 or Rs. 1,32,840, and Rs. 1,35,000 has been estimated for 1940.

Item 7.—Law charges have been estimated at the rupee equivalent of £140.

Item 8.—The expenditure on miscellaneous charges has been estimated at Rs. 60,000. Some savings on this head can be anticipated as provident fund provision is included and some reductions in staff will be possible when power is obtained in bulk.

The losses on the petrol or trolley buses are not included in the estimate of expenditure, nor the profit on tramway in our estimate of revenue, as these items do not properly belong to the electrical undertaking.

APPENDIX XIV.

Estimate of rate to be charged for energy under a two-part Tariff.

Standing Charges.

	1st Stage.	2nd Stage.	3rd Stage.
	Rs.	Rs.	Rs.
1. Interest	91,672	1,36,300	1,37,500
2. Depreciation	1,20,794	1,53,394	1,89,394
3. Contributions to Reserve and Provident Funds	20,200	20,200	20,200
4. 5 per cent. of expenditure on coal . .	13,184	26,913	45,560
5 per cent. of expenditure on water. .	223	492	832
5 per cent. of expenditure on oil waste and other stores	324	337	360
5. All salaries and wages	36,672	36,672	41,500
6. Repairs and maintenance	6,100	10,386	12,000
7. Management	23,544	23,544	27,000
8. Rent, Rates and Taxes	3,000	3,000	5,000
9. Share of River Training Works . .	..	15,000	5,000
10. Distribution	6,000	6,600	7,200
TOTAL STANDING CHARGES . .	**3,03,713**	**4,32,838**	**4,91,546**

Running charges.

	First Stage.		Second Stage.		Third Stage.	
	Estimated maximum demand 6,000 KW.	Annual charge per KW maximum demand Rs. 51.	Estimated maximum demand 9,000 KW.	Annual charge per KW maximum demand Rs. 48.	Estimated maximum demand 12,000 KW.	Annual charge per KW maximum demand Rs. 41.
95 per cent of expenditure on coal .		2,50,491		5,11,347		8,65,644
95 per cent of expenditure on water, oil waste and stores .		10,408		15,765		22,648
		2,60,899		**5,27,112**		**8,88,292**
Number of units sold . .		16,240,234		38,247,118		64,715,000
Running charge per unit sold		·257		·2205		·2196

APPENDIX XV.

DELHI CENTRAL ELECTRIC POWER AUTHORITY.

Licence 193 .

Licence granted by the Chief Commissioner of Delhi under the Indian Electricity Act, 1910, in respect of the Delhi Province to the Delhi Central Electric Power Authority, a corporate body established in 193 , having its registered office at the Power Station, Delhi Gate, New Delhi, for the supply of electrical energy in the Delhi Province, with the powers and upon the terms and conditions all specified below.

1. This licence may be cited as "The Delhi Central Electric Licence 193 ".

Short title.

2. The several words, terms and expressions to which by the Indian Electricity Act, 1910 or by the Rules thereunder, meanings are assigned shall have in this licence the same respective meanings provided that in this Licence :—

Interpretation.

(1) The expression "the Act" shall mean the Indian Electricity Act, 1910.

(2) The expression "the Government" shall mean the Government of the Delhi Province.

(3) The expression "the Licensees" shall mean and include the Delhi Central Electric Power Authority and its permitted assigns.

(4) The expression "First Annexure," "Second Annexure," shall mean the first and second annexures to this licence, respectively.

(5) The expression "deposited map" shall mean the plan or map which is signed for the purpose of identification by the Secretary to the Chief Commissioner in the Public Works Department, Delhi Province and by the applicants under the name and style of the Delhi Central Electric Power Authority and has been deposited with the Government in pursuance of the rules under the Act.

(6) The expression "other licensees" shall mean any person or persons (other than the licensees) who are duly authorised by a licence for the time being in force under the Act or other law for the time being in force in British India relating to the supply and use of electricity to supply energy to the public within the area of supply or some part thereof.

3. This licence shall come into force and have effect upon the day when the notification confirming this licence is published in the *Gazette of India*, which date is referred to in this licence as "the commencement of this licence."

Commencement of licence.

4. The area of supply shall be the Delhi Province, as shown in the first annexure and the deposited map.

Area of supply.

5. Unless herein otherwise expressly provided, energy shall be supplied under this licence only—

Purposes of supply.

(i) For power—

(*a*) To other licensees for their own purposes and in bulk; provided that the Licensees shall not be under obligation to supply energy in bulk to other licensees for the purpose of enabling such other licensees to supply any consumer requiring more than 500,000 units per annum calculated as in sub-paragraph (*b*).

(*b*) To factories within the meaning of the Indian Factories, Act, 1934, and to any Railway or other consumers provided that the Licensees shall not supply any such Factory, Railway or consumer as aforesaid unless such Factory, Railway or consumer as the case may be, shall require not less than 500,000 units per annum such amount being the *bona fide* average computed annual consumption of such Factory, Railway or Consumer.

(ii) For lighting and general purposes other than power, including the supply of energy in bulk to other licensees for distribution by them.

The energy supplied under this licence to any consumer for power may be used by such consumer for lighting and purposes other than power on his premises, provided that the energy used by such consumer for such lighting and other purposes shall not in any year exceed fifteen per centum of the total amount of energy supplied to such consumer.

(III) in the event of any difference or dispute arising between the Licensees and a distributing licensee by reason of any objection by the latter raised in any case of supply made by the Licensee under sub-clause (I) (*b*) or sub-clause (II) of this clause or in regard to the interpretation of the terms of any part of this clause, such dispute shall be referred to an arbitrator appointed by the Government on the application of either party and the decision of such Arbitrator shall be final.

Works and system of supply.

6. The systems which may be adopted for the supply of electrical energy under this licence are the following :—

(I) (*a*) A continuous current direct supply at a pressure not exceeding 250 volts between the adjacent conductors of three-wire system, the intermediate conductor being connected to earth at the transforming station but insulated at all other parts.

(*b*) A continuous current direct supply at a pressure not exceeding 250 volts between the conductors of a two-wire system.

(*c*) A continuous current direct supply at a pressure not exceeding 600 volts for power purposes where the approval of the Government is given.

(II) (*a*) A low pressure alternating current three-phase supply at a pressure not exceeding 250 volts between phases at a frequency of 50 complete periods per second.

(*b*) A high pressure alternating current three-phase supply at a pressure not exceeding 3,000 volts and at a frequency of 50 complete periods per second for power purposes where the approval of the Government is given.

(III) An extra high pressure alternating current three-phase supply at a pressure not exceeding 22,000 volts between phases and at a frequency of 50 complete periods per second. The neutral point of the transformers may, with the approval of the Government and the concurrence of the Telegraph Authority, be connected to earth.

Provided always that it shall be lawful for the Government from time to time to issue regulations dealing with the above systems, or, to authorise other systems to be adopted for the purpose of this licence. The mains and distributing mains and service lines within the area of supply shall either be underground or aerial lines, provided always that nothing in this licence shall be deemed to empower the Licensee to place aerial lines along or across any street unless and until the Government after consulting the local authority, has communicated to the Licensees a general approval in writing of the position and methods of construction of work lines.

The Licensees shall at their own cost erect and maintain sufficient guard wires at all places where any wires or mains of the Licensees shall be placed so as to cross above or be liable to fall upon or be blown on to the electric conductors of any Tramway, and when any such wires or mains cross above or are liable to fall upon or be blown on to any telegraph or telephone wire or wires the Licensees shall at their own cost erect and maintain sufficient guard wires or take such other precautions as the Director of Telegraph Engineering shall approve.

No works shall be erected by the Licensees on or near any fortified area of Military lands in the Delhi Province without the previous written consent of the Commanding Royal Engineer, Delhi Independent Brigade Area.

Power to break up Streets, Railways and Tramways.

7. The Licensees are hereby especially authorised within the Delhi Province to open or break up the streets wholly or partially repairable otherwise than by the Government or by a local authority and also the Railways and Tramways so far only as concerns level crossings and parts of the railways or tramways running along the highway on the level.

Protection for Existing Tramways of the Delhi Electric Supply and Traction Company Limited.

8. Where the exercise of the powers of the Licensees will involve the placing of any works alongside any rail of any then existing tramway of the Delhi Electric Supply and Traction Company Limited the provisions of Sections 14, 15 and 16 of the Act shall with any necessary modifications apply and have effect as if such works were placed over or under such tramway .

Period of Notice to Telegraph Authority.

9. The period of notice to be given in writing by the Licensees to the Telegraph Authority under Section 17 (i) of the Act before laying down or placing within ten yards of any part of any telegraph line, any electric supply-line or other works (except as in the said Section mentioned) shall be not less than fourteen days.

Transmission Line from generating station.

10. For the purpose of conveying and transmitting energy to any place in the area of supply the Licensees may after an order in writing has been made by the Government conferring upon them such (if any) of the powers referred to in Section 51 of the Act as may be necessary, and upon obtaining from the Government and general approval required by Section 18 of the Act, place aerial transmission lines within the area of supply approved by Government.

Maximum Charges.

11. The prices charged by the Licensees for energy supplied by them to any consumer shall not exceed those stated in that behalf in the Second Annexure, or in the case of a method of charge approved by the Government in accordance with Clause X of the Schedule to the Act, such maxima as the Government may fix on approving the method. Nevertheless the Licensees may (subject to the provisions of Sections 22 and 23 of the Act) enter into special contracts for the supply of energy.

Purchase of Undertaking.

12. Option of purchasing the undertaking accorded to the Government by Section 7 of the Act shall first be exercisable on the first day of

and thereafter on the expiration of every subsequent period of ten years during the subsistence of this licence. The value of all lands, buildings, works, materials and plant of the Licensees to be paid in accordance with the said Section 7 of the Act shall be their fair market value at the time of purchase which shall be determined in case of difference or dispute by arbitration due regard being had to the various matters mentioned in the first proviso set out in sub-section (1) of the said Section 7 and there shall not be added to such value any such percentage on account of compulsory purchase as is referred to in the second proviso set out in the same sub-section.

Exclusion from licence of certain clauses in Schedule to Act.

13. The provisions contained in Clauses IV, V, VI, VIII, and XII of the Schedule to the Act shall be excepted from incorporation with and forming part of this licence; and the other provisions contained in the said Schedule shall also be excepted from incorporation with and forming part of this licence in so far as they are inconsistent with its terms.

FIRST ANNEXURE.

AREA OF SUPPLY.

Delhi Province.

SECOND ANNEXURE.

In this annexure the expression unit shall mean the energy contained in a current of 1,000 Amperes flowing under an electro-motive force of one volt during one hour.

The following are the maximum prices which the Licensees are entitled to charge :—

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