GOVERNMENT OF INDIA DEPARTMENT OF WORKS, MINES AND POWER



REPORT

OF

The Advisory Board on the Principles for the Control of Public Utility Electricity Supply Finance

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In 1944 the Electrical Commissioner with the Government of India outlined some Principles for the control of public utility electric supply finance with a view to placing the finances of public electricity supply companies on a standard basis. This was necessary because no attempt had been made in the past to lay down a standard set of rules and regulations for the grant of licences and control of public electric supply undertakings. The principles were referred to the Provinces and the Federat on of Electricity Supply Undertakings and some individual electricity supply undertakings.

- 2. Terms of Reference.—At the meeting of Policy Committee No. 3-C on Electricity and Public Works held in Delhi in February, 1945, it was resolved that the draft code consisting of the "Principles for the control of Public Utility Electric Supply Finance" prepared by the Electrical Commissioner with the Government of India should be scrutinized by an Advisory Board. Accordingly in their Resolution No. EB 60(1), dated 15th of November, 1946, the Government of India constituted an Advisory Board under Section 35 of the Indian Electricity Act to examine these "Principles" and to recommend to the Government which of them should be adopted and to what extent, and the manner in which they should be enforced. The Advisory Board was empowered to call in assessors to assist the Board in such matters as in the view of the Board might require elucidation or clarification.
- 3. Composition of the Advisory Board.—The following persons were appointed by the Government of India to serve on the Advisory Board:

 Chairman.—Mr. II. M. Mathews, C.I.E., Electrical Commissioner with the Govt, of India.
 - Member.—Mr. D. L. Mazumdar, I.C.S., Jt. Sceretary to Govt. of India, Department of Works, Mines and Power.
 - Member.—Mr. P. B. Advani, M.Sc., Tech., M.I.E., (India), Special Officer (Electric Grid), Bombay.
 - Member.—Mr. K. V. Karantha, Chief Electrical Inspector To Government, Madras,
 - Member.—Mr. A. R. Colley, Nominated by the Federation of Electricity Undertakings of India.
 - Mr. K. Subramaniam, Technical Officer, Office of the Electrical Commissioner, was appointed by the Board as their Secretary.
- 4. After the fifth meeting of the Advisory Daard, Mr. A. R. Colley, proceeded overseas. The Federation of Electricity Undertaking; of India nominated Rao Bahadur T. M. Rangachari to succeed Mr. Colley on the Board. After the ninth meeting of the Board on Rao Bahadur Rangachari proceeding over eas they nominated Mr. I. A. Macpherson to take his place.

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Proceedings of the Advisory Board.

- 5. The Advisory Board met in Calcutta, Sim'a, Bombay, and New Delhi between 4th of April and 22nd of November, 1946, and held altegether 14 meetings. Prior to its first meeting the following action had already b en taken:—
 - (a) The draft recommended Principles had been circulated to all the Provincial Governments and certain other interested parties for criticism and suggestions.
 - (b) The draft Principles together with comments received thereon had been tabulated, printed, and copies distribut d to a Provincial Governments and also to the Federation of Electricity Undertakings of India.
 - (c) Two firms of leading Chartered Accountants had been appointed to examine the Principles from an accounting point of view and had submitted their reports and recommendations.
 - (d) Members of the Advisory Board had been provided with-
 - (i) The Principles as originally drafted by the Electrical Commissioner but incorporating certain amendments suggested by some of the parties to whom the original draft was submitted.
 - (ii) Relevant extracts of the Electricity (Supply) Bill which would authorise the application of the draft Principle.
 - (iii) The draft recommended Principles as set out in the Sixth Schedule and the Table appended to the Seventh Schedule of the Electricity (Supply) B.B.
 - (iv) Copies of the reports submitted by the two firms of Chartered Accountants appointed to examine and make recommendation.
- 6. During the period between the first and last meetings of the Advisory Board, communications were addressed to the following to secure opinions on certain matters—

The Governor of Reserve Bank of India;

The Government of Madras;

The Government of Mysore;

Messrs. Premchand, Roychand & Co., Bombay.

Messrs. Indo Commercial Bank, Ltd., Madras.

Oral evidence was also taken from the following witnesses:--

- (1) Messrs J. D. Choksi & F. J. Hecht, representing Tata Hydro Electric Agencies Ltd., Bombay.
- (2) Mr. N. C. Javeri, representing Consolidated Electric Agencies Ltd., Bombay.
- (3) Mr. F. C. Williams, representing Messrs. Octavius Steel & Co., Celcutta.

7. Appreciation.—In submitting our report to the Government of India, we wish to place on record our appreciation of the services rendered by our Secretary, Mr. K. Subramaniam, without whose untiring efforts our task would have been rendered extremely difficult. The Board decided at its first meeting to invite Mr. R. L. Evans, Special Officer for Electricity Development in the Government of Bengal to attend our meetings as an observer. Mr. Evans was formerly the Deputy Electrical Commissioner with the Government of India and was intimately concerned with the drafting of the "Principles" in their original form. The Government Bengal kindly consented to this, and Mr. Evans attended the first eight meetings, and his views and counsel proved to be of the greatest value in our deliberations.

Existing Conditions in the Electricity Supply Industry and Objects of "The Principles".

- 8. In considering the development of the Electricity Supply Industry in India, we are immediately struck by the multiplicity of small undertakings, the issued capital of which in the great majority of cases is under five lakhs of rupees. The development of many commercially owned electricity undertakings has undoubtedly been impeded by difficulties experienced in raising capital and the high rate of interest demanded for its provision. The Public Electricity Supply Industry has certain peculiar features differentiating it from most other industrial enterprises. The most important of these is its monopolistic character, which can lead to abuses in the absence of an adequate control. This fact has been given due consideration by the Board in making its recommendations.
 - 9. The Indian Electricity Act (1910) gives the Provincial Governments a certain measure of control over licensees in that licenses may be revoked in cases where it can be shown that the licensee has seriously defaulted in his obligations to the public. The amount of financial control which a Provincial Government can exercise is however inadequate and expert nec has shown it to be lacking both in precision and uniformity. It is true that in any license granted by a Provincial Government, a schedule of maximum prices is incorporated. Provided, however, that the licensee does not exceed those prices and carries out with reasonable prompt tude the other conditions of the license, his operations cannot be regulated to any appreciable extent.

Under the prevailing conditions the interests of the confumer often take second place to those of the shareholder. Several licensees pay unduly high rate of interest on their capital. So long as this continues to be the case the cost of electricity to the consumer will remain unnecessarily high and general development must inevitably be retarded.

11. The expansion of industry and the development of more efficient agriculture demand an abundant supply of electricity at reasonable rates. In the post-war era the cost of electricity will be of great significance in the establishment of efficient and competitive industry.

- 12. From the point of view of the licensee also, the prevailing conditions under which his operations are conducted are unsatisfactory. The policies of the different Provincial Governments in the normal administration of licensees vary, no clear-cut declarations of what is a far return on capital have been made and the examination of a licensee's affairs by Advisory Boards have been lacking in recognised methods of approach. These several uncertainties are not conducive to the rapid development of electricity supply.
- 13. The aim of the Principles is to remove as far as possible these uncertainties and the main objects underlying these are:
 - (a) To safeguard the interest of the Consumer by limiting interest and dividends payable to the minimum necessary to ensure an adequate flow of development capital, and so effect a reduction in the selling price of electricity.
 - (b) To safeguard the interests of investors (and, in the long run of the consumers as well) by insistence on a properly devised system of compulsory depreciation and at the same time permit the earning of a "reasonable" or "fair" return on investment.
 - (c) To regulate the commission and expenses of Managing Agents within reasonable limits, having regard to the special circumstances of the industry.

The Principles in Relation to Nationalization.

- 14. Our terms of reference do not include any direction to investigate this mat'er, but nevertheless mention of it at this stage in our report would appear to be advisable. Not only in India, but in many overseas countries there is a growing demand for the Nationalization or I ublic Gwnership of public utilities. Broad indications in the same strain have recently been the subject of pronouncements by Provincial Covernments in India. The Policy Committee No. 3-C. (Public Works and Electric Power) of Reconstruction Committee of Council, Government of India, at its second meeting held on 2nd February, 1945, resolved that—
 - (a) the development of electricity supply in areas outside existing licensed areas should be actively pursued, as far as possible, as a State or quasi-State enterprise; but if for any reason the State is not prepared to undertake such development in any area within a reasonable time, private enterprise should not be excluded;
 - (b) provided efficient and economic operation could be assured to the public, options existing under any licence to acquire an undertaking should, as a general rale, be exercised when they arise;

(c) that steps be taken to eradicate any factors that retard the healthy and economical growth of electrical development on regional lines whether in Provincial, State and Local authority-owned or in commercially-owned electrical undertakings.

There are, however, several reasons which lead us to suppose that many licences will remain in existence for some considerable time to em, and new licences will, on occasions, be granted. These reasons may be set out as follows:—

- (a) Some Provincial Governments while accepting the ultimate Nationalization of electricity supply within their territories as a goal, have at present neither the necessary organisation nor adequate financial and technical resources to take up electrification schemes on a large scale and so are obliged to consider the grant of new licences.
- (b) For similar reasons certain Provincial Governments are unlikely to exercise all options on licences as they become due, and hence there will be inevitable extensions of some existing licences.
- (c) Cortain Provincial Governments would appear to prefer to utilize their limited financial resources to the carrying out of new development projects rather than for the acquisition of existing licences.
- 15. It follows that many licences will remain in existence for some considerable time to come, and therefore an effective and uniform method of control by Provincial Governments is necessary. Under the provisions of the Electricity (Supply) Bill 1946 (expected to be placed before the Central Legislature in the January 1947 Session) most Provinces may be expected to set up public Electricity Supply Boards. As will be seen from our concluding recommendations, it is proposed that these principles should be incorporated in the Bill to govern the relationship between licensees and Electricity Supply Boards. There may be exceptions, but it seems to be most desirable that the principles should apply in all Provinces irrespective of whether they will bring into effect the provisions of the Bill in the territories under their jurisdiction. Steps should accordingly be taken to include these principles in the proposed amendment of the Indian Electricity Act (1910).
- 16. The Principles.—The Advisory Board has given exhaustive consideration to the Principles and, after much redrafting and the introduction of many amendments, we have finally approved them in the form attached hereto as Appendix A. In the paragraphs now following we discuss the salient features involved.
- 17. The Capital Base.—The "Capital Base" may be defined in general terms as—"The value of that portion of an undertaking's property used and useful in rendering service and upon which value the undertaking is entitled to a Reasonable Return".

- 18. The employment of "Capital Base" as a part of the lais for Public Utility Control does not constitute a global precedent. Under the London Electricity Act (No. 2) of 1925, an attempt was made to limit profit and rates by somewhat similar means and more recently the system has been employed by the Fideral Power Commission in the United States of America.
- 19. In the U.S.A. however, the "Capital Base" (or "Rate Base" as it is there usually termed) is in principle similar to the one which has been adopted for these Principles. Due to the system of accounting employed in the U.S.A. it has been possible to eliminate certain elements from the "Rate Base" which would be impracticable to effect in India. For instance only 'actual', 'legitimate' and 'original' assets are generally admirable in the U.S.A. which means that elements of subsequent enhancement, profit or accretion can be excluded.
- 20. It is admirtedly desirable to effect all of the above exclusions, but in practice it would mean an investigation into the accounts of every undertaking since its inception, and the Board is of the opinion that this would be impracticable as being too formidable a task.
- 21. The Capital Base now recommended will permit various undertakings, who have indulged in the past in the capitalisation of revenue partly at the confumers' expense, to retain the assets thus acquired in the Capital Base. Once the Principles are enforced, however, this practice will automatically cease and when new development capital is required, instead of employing surplus profits, etc., as has been the case in certain instances in the part, it will be necessary for such undertakings to raise fresh capital from the Public or borrow from other sources.
- 22. We have already effered a general definition of "Capital Base". For the Prin iples, however, a brief but more pertinent one would be—"The depreciated cost of fixed and intangible assets plus working capital but exclusive of geodwill and non-compulsory investments, Debenture and Preference Capital".
- 23. The relation which the "Capital Base" will bear to the paid up ordinary share capital will depend on several factors. Speaking broadly, however, the "Capital Base" may be greater than the paid up ordinary share capital in the case of Undertakings which have not been prevented from earning an unduly high profit and have been able to capitalize part of this; and conversely may be less for various reasons, e.g., the profit and development of the Undertaking may have been restricted. While it has to be admitted that such variations in relationship between "Capital Base" and paid up ordinary share capital are unsatisfactory, the impracticability of completely climinating such anomalies has already been referred to in paragraph 19.
- 24. Standard Rate.—Under these Principles the amount allowable as divisible profits will mainly depend on the size of the Undertaking's Capital Base. The "yardstick" which will be used to measure what is considered to be a "Reasonable Return" on "the Capital Base" is

called the "Standard Rate". The "Standard Rate" is a percentage determined by making certain additions to the redemption yield of the longest dated terminable Central Government loan is used immediately prior to the accounting year of the licensee.

25. We originally contemplated making the prevailing Reserve I ank Rate the basis for the Standard Rate with a view to taking some account of the variations in the cost of money. On the advice of the General of the Reserve Bank however, we have decided to base the Standard Rate on the redemption yield on the longest dated Central Government terminable loans; this being of much greater significance in considering returns on long term investment.

26. Much consideration has been given by the Board to the establishment of the Standard Rate since this is of overwhelming significance in determining what we consider to by the "Reasonable Return". We have considered it advisable to approach this problem with due regard to the return obtainable on other classes of investment. To this end we have attempted a reasonable grading between the return obtainable on Central and Provincial Government securities, Electricity Debentures and Preference Stocks, and the ordinary share capital employed in the Electricity Supply Industry. We think it reasonable to conclude that many investors would prefer the ordinary stocks of well established and soundly managed large Undertakings to the Preference Shares of small concerns with less inviting balance sheets, even if the Dividend to earned on the former were apparently less. With this factor in mind the Board are of the opinion that the lowest step in the Standard Rate (viz., for Undertakings whose Capital Bases exceed 50 lakhs) could be below the maximum Preference Share Dividend which is all wable as an expense. On the other hand it cannot be substantially below that figure since there must be some safeguard for the interests of the ordinary share holders of those Companies whose Capital Ba e is lower than the paid up ordinary have capital, due, perhaps, to the fact that the selling price of electricity has been kept to a minimum.

27. Opinion can never be unanimous on the question of what is a "Reasonable Return". Varying views have been expressed to us ringing from 4½ per cent, to 9½ per cent., less tax in both cases. In our opinion it would be quite inequitable for the basis of the Reasonable Return to be arrived at by means of a single flat rate on the Capital Base. The "Sliding-scale" advocated will overcome this difficulty and due to the fact that the Standard Rate includes an element depending on the cost of money, it should be reasonably equitable to all Undertakings, irrespective of size and fluctuations in the cost of money. Our recommendations in this matter are of course contained in the Principles but the following table is set out for convenience. The estimated rates shown are based on the redemption yield of the longest dated Central Government terminable loan at the end of 1946—e.g., about 2.8 per cent. The redemption yield on similar Provincial Government loan was about 3:0 per cent.

Nature of Investment	Rates as in Principles	Resultant Totals for 1916
Redomption yield on longost dated Central Government terminable loan	х %	2.8%
Miximum rate of interest on Debenture Capital per- mitted as an expense under the Principles	X + 1.5%	4.3%
Miximum rate of interest on Priference Capital permitted as an expense under the Principles Standard Rate on Capital Base permitted under the Principles.	X + 2.5%	5.3%
(a) On that portion of capital base which is in excess of Rs. 50 Lakhs (b) On that portion of capital base between Rs. 10	X + 2.5%	5.3%
lakh and Rs. 50 Lakhs (a) On the first Rs. 10 lakhs of capital base	X + 3.0% X + 3.5%	5·8% 6· %

Notes :-

- (1) The rates fixed represent the maxima on investment which will be permitted in any year.
- (2) The actual return on ordinary capital may be somewhat higher in cases where the licensee is able to raise Debauture and Preference capital at lower rates than those permitted as an expense under the Principles.
- (3) The actual return on ordinary capital can also be somewhat higher as a result of efficient operation.
- (4) The nature of the business does not permit of earnings at these rates being ach eved in the early years of development and hence the actual average return on the ordinary capital over the life of the undertaking will be somewhat lower than is indicated in the table.
- 28. It will be evident that an important object of the Principles is that the excess of gross income over allowed expenditure, viz., clear profits, as therein defined, shall not exceed the amount of the Reasonable Return. It will however, be appreciated that it may not always be possible for an undertaking to regulate its financial policy so that the clear profit does not, in fact, exceed the reasonable return. Where such an excess occurs, it is considered that it should to some extent be used to supplement the income of the undertaking in the years where the actual "clear profit" falls below the amount of the reasonable return. With this object in view it is proposed to create a reserve called the Tariffs & Dividends Control Reserve. In those years where undertakings' clear profit is in excess of the reasonable return, 1|3rd of such excess shall be credited to this reserve and in those years where the undertakings' clear profit is less than the reasonable return, the undertaking may draw from this reserve to make up this deficiency in whole or in part. It has also been provided that 1 3rd of the excess shall be used for a rebate to the consumers and the remaining 1 3rd be made available to the undertaking as a bonus for efficient operation.
 - 29. Provision has also been made to prevent undertakings from earning a clear profit constantly in excess of the reasonable return per-

- mitted. This it is intended to be achieved by the provision for a committee which may be appointed by the Provincial Government to examine the licensees' charges for electricity in accordance with the Principles.
- 30. Remuncration of Managing Agents.—The remuneration drawn by a managing agent covers two separate items: firstly, Commission, and secondly, an allowance on account of office expenditure.
- 31. Commission.—The maximum Managing Agents' examission is governed by Section 87C of the Indian Companies Act. The basis of their commission is always the net profit earned by the managed company. Under the Principles the amount of net profit the managed company may earn (as defined in the Indian Companies Act) will now be related indirectly to the amount of the capital base. We consider that having regard to the partially monopolistic nature of the electricity supply industry and to the desirability of reducing the cost of electricity as far as possible, Managing Agents in this country should be content with a somewhat lower rate of commission than the maximum allowed under the Indian Companies Act. It will be noticed that under the Principles the commission will be based on "Clear Profit" instead of "Net Profit"
- 32. Office Allowance.—There are no maxima laid down under the Indian Companies Act covering the amount of office allowance which may be drawn by Managing Agents. For reasons similar to those given in the preceding paragraph we recommend that the office allowance, too, should be governed in extent in the case of Managing Agents, of electricity supply undertakings. Much consideration has been given to the basis on which this office allowance should be limited and the Principles contained an office allowance composed of two elements, the first being related to a specified portion of the operating expenditure and the second to the amount of capital expended on development during the year.
- 23. Total Remuneration of Managing Agents.—The Board have not overlooked the fact that in the early years of working the clear profit of the undertaking may be small and iradequate to provide a reasonable remuneration for the Managing Agents. In order to meet this particular circumstance provision has been made for the payment of a minimum amount as Managing Agents' commission based on the total issued capital.
- 34. We feel that in the above way an attempt has been made to remunerate Managing Agents reasonably and on a rational basis, and also to provide some incentive for development.

Review of Probable Effect on Existing Undertakings of Introduction of the Principles.

35. We have made previous reference to the fat that certain undertakings will, on the introduction of "the Principles" find that due to the capitalization of revenue, the sum which will represent their L1442El. Com.

- "Capital Base" will exceed that of the "Paid-up" Ordinary Share capital. We have also pointed out that after the Principles have been introduced, an undertaking will only be able to increase its "Capital Ease" by—
 - (a) Acquiring further a sets for the undertaking.
 - (b) To a small extent as a result of increasing its operational efficiency and re-investing in the undertaking a proportion of the surplus clear profit allowed by the Principles.
- 36. As the undertaking expands therefore, the amount in the "Capital Base" represented by the "ploughing back" of undistributed profits prior to the introduction of the Principles will become of diminishing significance, and as time goes on the tendency will be for the "Capital Base" to approximate more and more to the paid up Ordinary share Capital—any excess in the long run being represented by the effects of efficient management.
 - 37. It may be suggested that the above point is relatively unimportant as a large proportion of undertakings are at present paying a vidends on their Ordinary Share Capital at a rate less than the maxima which they would be entitled to pay where the Principles enforced. It is quite correct that, in so far as their Ordinary Dividend is concerned, the great majority of licensees will not, (once their depreciation has been brought to the required level), be materially affected by the introduction of the 'Principles'. However, although this class of undertaking is large numerically, the amount of capital which it employs is a surprisingly small proportion of the total capital invested in the industry.
 - 38. In order to illustrate this fact a representative sample of the commercially owned undertakings in India was taken. The sample comprised 148 licensees accounts. Although only 21 per cent, of the total paid an Ordinary Dividend exceeding 7 per cent, (subject to tax) this small percentage was responsible for no less than 77 per cent, of the eapital employed by the licensees included in the sample. It may be noted that the term "capital employed" represents the sum of the "Capital Bases" of the undertakings in the period under review.
 - 39. Bearing in mind the fact that at present the total paid up capital of the commercially owned electricity undertakings in British India is of the order of Rs. 33 crores it will be evident from the above figures that the application of the Principles will exercise a measure of control on a substantial sum of money distributed in the form of Dividends by a relatively small number of licencees. The result of this control will inevitably be that the consumer will receive in the form of reduced charges the benefit of a proportion of the profits which hitherto were distributed to the Ordinary shareholder.
 - 40. Turning now to "income" as defined in the Principles, it will be evident that these undertakings whose "clear profit" at present considerably exceeds the amount of the "reasonable return" which the Principles allow will be required to reduce the cost of electricity to the

consumer. This may effect a temporary drop in income, but experience has proved that falls in the revenue so occasioned are, in normal times, quickly followed by an increase in demand. In fact the result of voluntary enterprise of this nature has in the past frequently confounded the most optimistic estimates of astute management. If it is argued that existing plant capacity is inadequate to meet any further increases in demand, the answer is that these Principles were formulated not to restrict the sale of electricity but the profit on its sale. We consider that the present difficulties in regard to supply and demand should be regarded as transitory and that there is no justification for stimulating any policy other than the long term one of affording the most abundant supplies at the cheapest possible price.

- 41. A further effect of the enforcement of the Principles will be to strengthen the financial standing of the electricity supply industry. From the investors' point of view, the security will be greater and, in consequence the availability of money at cheaper rates than hitherto should become noticeable after a short period of operation.
- 42. In regard to the proper application of the provisions of these Principles, it is not denied that cases will arise, where an attempt may be made to effect an artificial inflation of the Capital Base. Oth r irregularities of internal accounting might also be attempted with a view to avoiding the full effect of certain provisions. Provincial Governments will now, however, have the authority necessary to effect the required measure of general control and where Statutory Electricity Supply Boards are set up under the provisions of the proposed Electricity (Supply) Bill they will have the power to effect an adequate and detailed supervision of the accounts of all licensees under their jurisdiction.
- 43. In submitting our report it will be noted that, although there is a minute of dissent attached hereto by our colleague nominated by the Federation of Electricity Supply Undertakings, reached a very large measure of uranimity. Arising out of this matter we wish to record our regret that it was not possible for the Federation of the Electricity Supply Undertakings to nominate as a member of the Board a person who could have continued to remain colleague throughout all our deliberations. Had this occurred think it is possible that by further discussions we might have reached an even greater measure of unanimity; indeed, it is probable that a number of the minor differences of opinion might not have been maintained and might, therefore, not have been recorded. The only major difference of opinion between the Federation's nominee and the other members of the Board has proved to be the question of what should be the standard rates laid down in Clause 5 of the Principles. We have already referred in paragraph above to the wide divergencies of opinion which have been expressed to us on this matter. We have considered this matter very carefully and have examined the accounts of a large

number of undertakings. We have also had the benefit of consultation with some financial houses and the Governor of the Reserve Bank of India and our considered view is that the rates proposed in Clause 5 of the Principles are reasonable and adequate for the purpose intended. We are of the opinion that the additional 2 per cent. proposed by our colleague (Mr. Macpherson) is not essential for the welfare of the industry and would form an unnecessary burden on the consumers of electricity.

We have had regard to Mr. Macpherson's reference to the rates of seturn permitted under various instruments of legislation in the U.K.) We are of the opinion that as these conditions were laid down from ten to twenty years ago they are not representatives of the current attitude in the U.K. to this subject. Furthermore, we have reason to believe that if legislation were undertaken now in the U.K. it would undoubtedly provide for a considerably lower rate of return than the figures mentioned in Mr. Macpherson's minute. While we are less adequately informed of recent rulings at "rate hearings" in the U.S.A. we understand that the trend in that country, too, is towards permitting a lower return although this trend is less pronounced than in the United Kingdom.

44. Recommendation.—We are unanimously of the opinion that the Principles in the form attached to this report should be made applicable to all existing licences under the Indian Electricity Act as well as to those licences which may be granted in the future. To this end we recommend to the Government of India that the Principles should form the Sixth Schedule to the proposed Electricity (Supply) Bill, 1946, and that they should, in addit on, be incorporated as soon as possible as an amendment to the Indian Electricity Act, 1910.

H. M. MATHEWS, Chairman.

D. L. MAZUMDAR.

P. B. ADVANI,

K. V. KARANTHA.

I. A. MACPHERSON.

K. SUBRAMANIAM, Secretary.

New Delii ;
The 22nd November, 1946.

^{*}Signed subject to a Minute of Di sent appended,

Minute of Dissent of Mr. I. A. Macpherson, M.B.E., C.A., from the Report of the Advisory Board Constituted by the Government of India to Examine the "Principles for the Control of Public Utility Electric Supply Finance"

It is much to be regretted that the nominee of the Federation of Electricity Undertakings of India on the Advisory Board has changed no less than three times during the session of the Board. As pointed out at paragraph 4 of the Board's Report, the Federation's original nominee, Mr. A. R. Colley attended the first five meetings, thereafter Proceeding out of India on leave and being replaced by Rao Bahadur T. M. Rangachari, M.B.E., who, in turn, was compelled to resign from the Board for similar reasons after the ninth meeting. The writer of this Minute was nominated to replace Rao Bahadur T. M. Rangachari, M.B.E., at the last session of the Advisory Board held at New Delhi from the 18th to 22nd of November, 1946, and he wishes to record his indebtedness to the Chairman and other members of the Board for their pains in explaining to him what transpired at their previous meetings.

- 2. On account, therefore, of the writer's belated nomination to the Board, his signature of the Board's Report must, of necessity, and subject to the reservations set out below, be taken to imply a concurrence with the Board's findings, as contained in the revised principles and covering Report, only on such points as came up for discussion at the Board's final session. The points referred to are incorporated in clauses 3, 12, 13, 24 and 27 of the revised Principles.
- 3. Managing Agents' Remuneration.—As regards clause 24, which deals with Managing Agents' remuneration, although the rates set out in this clause were agreed finally at the meeting of the Board held on 21st of November, 1946, the writer of this Minute took no part in the deliberations of the Board on that date and his signature of the Report cannot be held to signify agreement or disagreement with either the comments of the Board in their Report on this clause or with the provisions of the clause itself. As he was not present at preceding meetings of the Board when the principles for limiting Managing Agents' remuneration were decided and evidence from Managing Agents as referred to in the Board's Report was taken, he considers himself not sufficiently informed to endorse the Board's recommendations.
- 4. Stundard Rate.—(a) In the first place, although the writer has confined his remarks below only to a criticism of the actual standard rate as agreed by other members of the Board, this cannot be taken to imply agreement with the particular method devised by those "Principles" (in which the "incentive" factor is so lacking) to control Electric Supply Finance. The apparent "incentive" factor introduced by clause 13 is almost entirely vitiated by clause 12. It will be shown below that there are other methods for securing this control, but as the method recommended was adopted at meetings held prior to the writer's nomination to the Board he refrains from commenting thereon.

He does, however, unferturately find himself in disagreement with the other members of the Board on the question of what shall be the standard rate as provided for in clause 5 of the Principles, a rate which, as referred to at paragraph 13(a) of the Board's report, must be the "minimum necessary to ensure an adequate flow of development capital" into the industry.

(b) Clause 5 of the Principles recommends that the standard rate shall mean "the redemption yield of the longest dated term nable loan of the Central Government last issued prior to the last accounting year of the licenses, adjusted to the nearest one quarter of one per cent. and declared for this purpose in the Government Financial year by the Reserve Bank of India to the Central and Provincial Governments—

plus,

- (1) 3.5 per cent, for the first Rs. 10 lakhs of Capital Base.
- (2) 3.0 per cent, for the next Rs. 40 lakhs of Capital Base.
- (3) 2.5 per cent. for the balance of the Capital Base.
- (c) The writer's discent from the above is two-fold:

In the first place, he considers that there is no justification for fixing a constant difference between the standard rate and the redemption yield of the longest dated terminable loan of the Central Government. It is considered that the variation should bear some agreed ratio to the variation of that yield above or below a fixed rate. For example, if the redemption yield is 2.5 per cent., the standard rate on the last slab of capital base will be 2.5 per cent. plus 2.5 per cent., i.e., 5 per cent. If the redemption yield were to rise to say, 5 per cent., it is thought that the standard rate should be not 5 per cent. plus 2.5 per cent. or 7.5 per cent., but should be a rate somewhat in excess of 7.5 per cent.

- (d) As regards the actual percentages laid down as the measure of the excess of the standard rate over the redemption yield of the longest dated term nable loan of the Central Government the writer is unable to agree with the recommendations of other members of the Board for the following reasons:—
 - (i) It is not considered that such rates will attract an uninterrupted flow of ordinary capital for the development of the electricity supply industry in India.
 - (ii) The writer is not persuaded by evidence which has been adduced to the Board that the standard rate on the final slab of capital base shall be no more than the maximum dividend rate on preference capital allowed by the Principles at Clause 3(c) (iv).
 - (iii) The standard rate as set out at clause 5 of the Principles cannot but be considered somewhat meagre by comparison with the equivalent rate fixed for the electricity supply industry by similar legislation in other parts of the world. The London Electricity Acts, 1925, for example, provide

for a standard dividend of 7 per cent, on the nominal amount of paid-up ordinary capital (including that created by: capitalisation of fure reserves) with a provision that such a devidend may be increased by the utilisation of 1|6th of the difference between the companies' sales of energy at their current tariffs and what such sales would have amounted to had electrical energy been sold at the "Standard Tariff". In the case of many distributing licensees outside the London Area, the Electricity Commissioners have limited the standard return to 8 per cent, of the capital employed. In the ease of Midland Electric Corporation, "Standard Profit" is fixed at 61 per cent. on so much of the Capital as has not been provided out of sinking funds or free reserves and 6 per cent, on any cap'tal which has been so provided. A sliding scale for this company provides for one quarter of one per cent. additional profit for each 21 per cent, reduction on the standard tariffs. During recent years the actual reduction has remained unchanged at 221 per cent. allowing additional profit of 21 per cent.

- In America, the Washington plan (Potomac Electric Power Co.) provides for a standard return of 7 per cent. on the amount of capital agreed as being usefully employed in the business. If such a profit exceeds 7 per cent., the excess is shared on a sliding scale between the licensee and the consumer.
- (iv) The writer can see no reason to suppose that the Indian investing public will accept a lower yield on capital than is obtainable abread. On the contrary, it must be generally admitted, that the reverse is the case.
- (v) For these and other reasons the writer considers, therefore, that clause 5 of the Principles should be redrafted to read as follows:

"Standard Rate" means-

In respect if any accounting year the redumption yield of the longest dated terminable loan of the Central Government last issued prior to the last accounting year of the licensee, adjusted to the nearest one quarter of one per cent, as declared for this purpose in the Government Financial year by the Reserve Bank of India to the Central and Provincial Governments—

plus,

- (1) 5.5 per cent, for first Rs. 10 lakhs of Capital Base.
- (2) 5 per cent. for the next Rs. 40 lakhs of Capital Base.
- (3) 4.5 per cent, for the balance of the Capital Base,

provided-

that the above percentages shall be increased or decreased by 0.5 per cent, for each year 2 per cent, by which the redemption yield of the longest dated terminable loan of the Central Government respectively exceeds or falls short of 2.5 per cent, in any accounting year.

I. A. MACPHERSON.

New Delli,
The 22nd November, 1946.

Dissen's recorded on major Items where the views of the Nominee of the Federation of Electricity Undertakings of India differed from those of the rest of the Board.

- 1. At the Second meeting of the Board (held on 5th April, 1916) Mr. A. R. Colley, suggested the adoption of the Principles proposed by Messrs. Lovelock & Lewes in their Report in substitution of the Recommended Principles as drafted by the Electrical Commissioner. The Coard decided to adopt the basis of the Principles as drafted by the Electrical Commissioner, Mr. Colley dissenting.
- 2. At the Fourth meeting of the Board (held on 10th May, 1946), it was decided that the Compound Interest Method of depreciation computation should be adopted, as this method was considered the most suitable for Electricity Supply Industry. Mr. Colley dissented and favoured, principally on the score of simplicity, the Reducing Balance Method.
- 3. At the Fifth meeting of the Board (held on 11th May, 1946), Mr. Colley suggested that the Principles should not apply to such of the undertakings as are under notice of acquisition at the time of the implementation of the Principles. A similar suggestion was made by Rao Bahadur T. M. Rangachari at the Sixth meeting of the Board (held on 18th October, 1946). The Board decided that they were unable to accept the suggestion.

K. SUBRAMANIAM,

Secretary.

APPENDIX "A ..

Principles for the Control of Public Utility Electric Supply Finance.

PART I—DEFINITIONS.

In these Principles:-

- 1. "Original Cost" means in respect of any asset the sum of—
 - (a) The cost of the asset to the licensee, including the cost of delivery and all charges properly incurred in erecting and bringing the asset into beneficial use.
 - (b) Interest charges on capital expenditure incurred from borrowed money and properly attributable to the asset up to the date of bringing it into use at a rate not exceeding average Reserve Bank rate ruling at that time plus 1 per cent.
 - (c) A proper addition on account of supervision not exceeding fifteen percentum of the cost referred to in Subclause (a)—so however that the original cost of any asset shall not in any case exceed the original cost attributed thereto in the books of the undertaking.
 - 2. "Written down cost" means:-
 - Original cost less the amount set aside or written off on account of depreciation in the books of the undertaking.
 - 3. "Clear profit" means:-
 - The difference between income and the sum of expenditure plus specific appropriations, made up in each case as follows:—
 - (a) Income derived from-
 - (i) Gross receipts from sale of energy, less discounts applicable thereto;
 - (ii) Rental of meters and other apparatus hired to consumers;
 - (iii) Net proceeds from sale and repair of lamps and apparatus;
 - (iv) Rents, less outgoings not otherwise provided for;
 - (v) Transfer fees;
 - (vi) Investments, fixed and call deposits, and bank balances;
 - (vii) Other general receipts accountable in the assessment of Indian income tax and arising from the business of electricity supply;

- (b) Expenditure incurred on-
 - (i) Generation and or purchase of energy;
 - (ii) Distribution and sale of energy;
 - (iii) Rents, rates and taxes other than taxes on income ;
 - (iv) Interest on Debenture and other secured loans not exceeding such amount as would have been payable had the money been borrowed at the rate of redemption yield on the longest dated terminable Central Government loan at the time of borrowing adjusted to the nearest one quartee of one percent plus one and a half percent;
 - (v) Interest on security deposits;
 - (vi) Legal charges;
 - (vii) Bad debts;
 - (viii) Auditors' rees :
 - (ix) Management including managing agents total remuneration as provided for in Clause 24 hereafter.
 - (x) Depreciation, computed as hereinafter set out;
 - (xi) Other expenses admissible under the law for the time being in force in the assessment of Indian income tax and arising from the business of electricity supply;
- (c) Special appropriations sufficient to cover—
 - (i) Previous losses that is to say excess of expenditure over income which has arisen from the business of electricity supply to the extent in any year actually appropriated for the purpose in the books of the undertaking;
 - (ii) Super-tax payable by the licensee as a Company;
 - (iii) Write down of intangible assets and new Capital issue expenses to the extent in any year actually appropriated for the purpose in the books of the undertaking, but not exceeding an amount found by dividing the written down costs of such assets by the number of complete years remaining before the next option of purchase under the ficence arises;
 - (iv) Dividends due on preference share capital, not exceeding such amounts as would have been payable had the dividends been due at the rate of two and one half percent plus the redemption yield on the longest dated terminable

Central Government loan at the time of issuing preference share capital adjusted to the nearest one quarter of one percent;

- (v) Contributions to the Contingency Reserve, computed as hereinafter set out;
- (vi) Contributions to Provident Fund, staff pension, gratuity scheme and apprentice and other approved training schemes.
- 4. "Capital base" means the sum of-
 - (a) the original cost of fixed assets, subject to the provision of Clause 23 in respect of service lines,
 - (b) the cost of intangible assets,
 - (c) the original cost of works in progress.
 - (d) the amount of investments compulsorily made under these Principles,
 - (e) an amount on account of working capital equal to the sum of-
 - (i) 5 percent of the original cost of fixed assets and works in progress,
 - (ii) the average value at the end of each month of the year of account of the fuel stocks held by the undertaking;
 - (iii) the average amount of cash and bank balances and call and short term deposits at the end of each month not exceeding in the aggregate an amount equal to one quarter of the expenditure under clause 3(b) excluding sub-clauses (i), (iv) and (x);

less.

- (f) sums in respect of
 - (i) the amounts written off or set aside on account of depreciation of fixed assets and write down of intangible assets in the books of the licensee;
 - (ii) the amount of debenture and other secured loans and preference capital.
- 5. "Standard Rate" means-
 - In respect of any accounting year the redemption yield or the longest dated terminable loan of the Central Government last issued prior to the last accounting year of the licensee, adjusted to the nearest onequarter of one percent, as declared for this purpose at the end of the Government Financial year by

the Reserve Bank of India to the Central and Provincial Governments—

plus,

- (1) 3.5 percent for the first Rs. 10 lakhs of the Capital Base.
- (2) 3.0 percent for the next Rs. 40 lakhs of the Capital Base.
- (3) 2.5 percent for the balance of the Capital Base.
- 6. "Reasonable Return" means-

In respect of any accounting year, the sum of-

- (a) the amount found by applying the standard rate to the capital base at the end of that year;
- (b) the income derived from investments other than those compulsorily made under Clause 15 (b) of these Principles.
- (c) half the difference between the interest payable on debenture capital and such greater amount as would have been payable had the money been-borrowed at the standard rate as computed for the undertaking in Clause 5.

7. The "Prescribed Period" means-

In respect of each of the assets specified in the table appended herewith, the number of years or period specified in relation to such asset, running in each case from the beginning of the year of account next following that in which the particular asset became available for use in the business.

8. "Ordinary Capital" means-

The nominal amount paid up, or deemed to be paid up, of ordinary capital attributable to the undertaking of the licensee, whether subscribed in cash or issued for equivalent consideration.

In the case of unincorporated companies having no share capital "Ordinary Capital" shall mean the net amount standing to the credit of the proprietor or proprietors account or accounts whether on capital account, personal account or any other account however called and properly attributable to the business of electricity supply.

9. "Preference Capital" means-

The nominal amount paid up or deemed to be paid up, of the capital attributable to the undertaking of the licensee, whether issued for cash or for equivalent consideration issued on such preferred terms as the Provincial Government may agree to be sufficient to qualify it for such description.

19. "Debenture Capital means—

Capital raised against debentures or other instruments creating a charge or lien on the assets of the undertaking.

11. "Intangible Assets" means—

Underwriter's commission and such preliminary and promotional expenditure shown as a debit in the Capital Account of an undertaking, as has fairly arisen in promoting the business of electricity supply excluding any amount paid on account of Goodwill.

FART II—THE PRINCIPLES AND THEIR APPLICATION.

- 12. The licensee shall so adjust his rates for the sale of electricity by periodical revision that his clear profit in any year shall not as far as possible exceed the amount which affords a reasonable return.
- 13. (a) If the clear profit of a licensee in any year of account is in excess of that amount which affords a reasonable return, one-third of the excess shall be appropriated to a reserve which shall be called the Tariffs and Dividends Control Reserve, one-third shall be available at the disposal of the undertaking and the remaining one-third shall either be distributed in the form of a proportional rebate on the amounts collected from the sale of electricity and meter rentals or carried forward in the accounts of the licensee for distribution to the consumers in future as the Provincial Government may direct.
 - (b) The Tariffs and Dividends Control Reserve shall be available for disposal by the licensee only to the extent in any year of account by which the clear profit is less than the reasonable return.
 - (c) On the purchase of the undertaking under the terms of its license any balance remaining in the Tariffs and Dividends Control Reserve shall, after deducting such amount as would have been due thereon on account of income-tax had the said balance formed part of the profit of the previous year of account, be handed over to the purchaser and maintained as such Tariffs and Dividends Control Reserve.
 - 14. There shall be created from existing reserves or from the revenues of the undertaking a reserve to be called the "Contingencies Reserve".
 - 15. (a) The licensee shall appropriate to the Contingencies Reserve from the revenues of each year of account a sum not less than one quarter of one percentum and not more than one

half of one percentum of the original cost of fixed assets. Provided that if the said reserve exceeds, or would by such appropriation be caused to exceed, five percentum of the original cost of fixed assets, no such appropriation shall be made.

- (b) The amount of the Contingencies Reserve or the first one lakh of rupees thereof, whichever is less, shall be invested in Trustee securities as defined in the Indian Trust Act.
- 16. The Contingencies Reserve shall not be drawn upon during the currency of the licence except to meet such charges as the provincial Government may approve as being—
 - (a) Expenses or loss of profits arising out of accidents, strikes or circumstances which the management could not have prevented.
 - (b) Expenses on replacement or removal of plant or works other than expenses requisite for normal maintenance or renewal.
 - (c) Compensation payable under any law for the time being in force and not otherwise provided for.
- 17. There shall be allowed in each year in respect of depreciation of fixed assets employed in the business of electricity supply such an amount as would if made annually throughout the prescribed period and accumulated at compound interest at 4 percent per annum produce by the end of the prescribed period an amount equal to 90 percent of the original cost of the asset after taking into account the sums already written off or set aside in the books of the undertaking. Annual interest on the accumulated balance will be allowed as an expense from revenue as well as the annual incremental deposit both being component parts of the rate of The year in which any asset or assets become depreciation. available for use in the business and/or the relative cost thereof shall, in the absence of satisfactory record be agreed between the licensee and the Provincial Government. All sums credited to depreciation account shall be invested only in the business of electricity supply of the undertaking or in Trustee securities as defined in the Indian Trust Act.
- 18. (a) Where any fixed asset ceases to be available for use through obsolescence, inadequacy, superfluity or for any other reason, it shall be described in the books of the licensee as no longer in use and no further depreciation in respect thereof shall be allowed as a charge against revenue.
- (b) The written down cost of such a fixed asset shall be carried to a special account in the books of the licensee and the amount thus shown shall be decreased by the amount for which the asset is sold or of its scrap value when actually realised.

- (c) The resultant balance attributable to such a fixed asset shall be charged against the Contingencies Reserve by equal annual instalments from the year of account in which the asset seases to be available for use as aforesaid up to the date of the next option of purchase of the undertaking under the licence or up to the expiration of the prescribed period, whichever is earlier.
- 19. When any asset has been written down in the books of the undertaking to 10 percent or less of its original cost, no further depreciation shall be allowed in respect of that asset.
 - 20. When any fixed asset is sold for an amount exceeding its written down cost the excess shall be credited to the Contingencies Reserve.
 - 21. Except with the consent of the Provincial Government, no sums shall be carried to a reserve, and no dividends in excess of 3 percent on ordinary or preference capital and no other distribution of profits shall be made while any sum allowed in respect of depreciation under these conditions remain to be written off in the books of the undertaking.
 - 22. Arrears of depreciation in terms of these conditions remaining to be written off and set aside in the books of the undertaking may be taken into account in any year as an expense for purposes of assessing the clear profit.
 - 23. Contributions made by consumers towards the cost of construction of service lines constructed after the date hereof shall not be included in the revenue account for the purpose of assessing the clear profit, and only the net cost of such service lines after deducting such constributions shall be included in the cost of fixed assets for the purposes of arriving at the capital base;

Provided that for the purposes of depreciation under Clause 17, the total original cost of construction of the service lines shall be taken into account.

24. (a) The ordinary remuneration of a managing agent including purchasing commission shall be based upon a percentage of the clear profit as defined in these principles and shall not exceed without the permission of the Provincial Government:

In respect of the first Rs. 5 lakhs of such profit—10 percent. In respect of all additional profit—7 percent.

In the absence of or inadequacy of profits the amount paid to a managing agent shall be subject to a minimum payment on account of ordinary remuneration not exceeding two rupees per annum for each complete thousand rupees of paid up share and debenture capital. Provided that for purposes of computing the minimum payment should the share and debenture capital be less than Rupees Five Lakhs it shall be taken as Rupees Five Lakhs and should the said capital be greater than Rupees One Crore it shall be taken as Rupees One Crore. In the case of unincorporated companies an amount equivalent to share capital, as defined in Clause 8 shall be considered for purposes of computing the minimum payment.

- (b) An office allowance drawn by a Managing Agent which include the salaries and wages of all personnel employed in the offices of the Managing Agents with the exception of engineering stand employed for the purposes of the undertaking shall be based upon a percentage of the operating expenditure and the expenditure during the year of account on capital works. The office allowance so drawn shall not exceed without the permission of the l'rovincial Government
 - (i) In respect of the first Rs. 1 lakh of operating expenditure—8 percent.
 - In respect of the next Rs. 2 lakhs of operating expenditure—5 percent.
 - In respect of the next Rs. 7 lakhs of operating expenditure—2½ percent.
 - In respect of all additional operating expenditure—
 12 percent.
 - (ii) In respect of the first Rs. 1 lakh of capital expenditure incurred during the year of account—4 percent.
 - In respect of the next Rs. 2 lakhs of capital expenditure incurred during the year of account—3 percent.
 - In respect of the next Rs. 7 lakhs of capital expenditure incurred during the year of account—1½ percent.
 - In respect of all additional capital expenditure incurred during the year of account—1 percent.

Operating expenditure for the purposes of sub-clause (b) (i) shove shall mean the sum of the items of expenditure as defined in Clause 3(b) less those under its sub clauses (i), (iv), (ix) and (x).

- 25. A Board of Directors shall not contain more than twelve persons.
- 26. The Provinci il Government may, where it is of the opinion that any licensee is offering rates of pay insufficient to attract staff of adequate calibre for the proper performance of his public duties, from time to time fix minimum scales of salaries payable to any class of persons employed by the licensee for purposes of his undertaking, and the licensee shall give effect thereto.

- 27. Notwithstanding anything contained in any licence (including the provisions of Clause XI of the Schedule to the Indian Electricity Act) the following conditions shall apply:—
 - (a) The Provincial Government may at any time of its own accord, and shall when requested so to do by the licensee, constitute a Committee to examine the licensee's charges for the supply of electricity and to recommend thereon to the Provincial Government;
 - Provided that no such Committee shall be constituted in respect of a licensee within three years from the date on which such a committee has reported in respect of that licensee, unless the Provincial Government declares that in its opinion circumstances have arisen rendering the orders passed on the recommendations of the previous committee unfair to the licensee or any or his consumers.
 - (b) The said Committee shall, after giving the licenses reasonable opportunity of being heard, report to the Provincial Government making recommendations (and giving reasons therefor) regarding charges of electricity which the licensee may make to any class or classes of consumers:
 - Provided that the Committee shall not, subject to the considerations of reasonable efficiency of operation and management and the potentialities of the undertaking, make any recommendation which by its effect is calculated to prevent the licensee from earning a clear profit sufficient, when taken with the sum available in the Tariffs and Dividends Control Reserve, to afford him a reasonable return.
 - (c) Within one month after the receipt of the report under Clause (b) the Provincial Government shall cause the report to be published in the Official Gazette. and may at the same time make an order in accordance therewith fixing the licensee's charges for the supply of electricity with effect from such date, not earlier than two months or later than three months after the date of publication of the report, as may be specified in the order; and the licensee shall forthwith give effect to such order:
 - Provided that nothing in this clause shall be deemed to prevent a licensee from reducing at any time any charges so fixed.

- (d) The constitution of the Committee appointed under subparagraph (a) shall be as follows:
 - A Chairman and two other members to be nominated by the Provincial Government.
 - One member to be nominated by the licensee.
 - One member to be nominated by the local electric licensecs' association, or failing by such Chamber of Commerce or similar body as the Provincial Government may direct.
 - Of the three members nominated by the Provincial Governments one shall hold, or have held for a period of not less than ten years, a judicial position not subordinate to that of a District Judge; and one shall be a registered accountant having at least 10 years experience of public utility electric supply finance and tariff making.

PART III--PROVISIONS FOR REVISION AND ABBITRA-

- 28. These conditions shall not be relaxed, revised or modified, except on the advice of a Committee to be constituted as follows:—
 - A Chairman to be nominated by the Central Government.
 - Three other members to be nominated by the Central Government in consultation with all Provincial Governments.
 - One member to be nominated by the Associated Chambers of Commerce of India or such other body as the Central Government may direct.
 - One member to be nominated by the Federation of Electricity Undertakings of India.
 - Of the four members nominated by the Central Government one shall hold, or have held, a judicial position not subordinate to that of High Court Judge, and one shall be a registered accountant having at least 10 years experience of public utility electric supply finance and tariff making.
- 29. In the event of any difference or dispute at any time arising in regard to the interpretation of these conditions or any matter arising out of or in connection with these conditions (not being a matter in regard to which a method of determination is hereinbefore prescribed) such dispute or difference shall be

referred for arbitration by two arbitrators—one to be appointed by each party to the dispute or difference which arbitrators shall appoint in writing an umpire before taking upon themselves the burden of the reference, and this reference shall be deemed to be a submission to arbitration within the meaning of the Indian Arbitration Act, 1940 (X of 1940) and all the provisions of that Act (except as hereby expressly varied) or of any Act of the Legislature passed in substitution therefor or in modification thereof and for the time being in force shall apply to any efference hereunder.

Table. (Please see Clause 7.)

Description of asset.				Number of years or period.
A. Land owned under full title		**	• ١	Infinity.
B. Land held under lease				
(a) for investment in the land	l .,	**	**	The period of the lease, or the period remaining unexpired on the assig ment of the lease.
(b) for cost of clearing site	.,	• •		The period of the lease remaining unexpired at the date of eleming the site.
C. Asset purchased new-				
(a) Plant and machinery in g cluding plant foundations—	enerati	ng stations	, in-	
(i) hydro-electric	• •			Thirty-five.
(ii) steam-electric	11	••		Twenty-five.
(iii) diesel-electric	٠.			Fifteen.
(b) Cooling towers and circula	ating w	uter syster	m	Thirty.
(r) Hydraulic works forming tric system, including	part c	of a hydro-	ele o •	
. (i) dams, spilways, weirs, o orote flumes and syphone		reinforced	con-	One hundred.
(ii) reinforced concrete pip steel pipelines, sluice ga hydraulic control valves works	tes, st	eel surge t	anke,	Forty.
(d) Buildings and civil engin manent character, not met			per-	
(i) office; and show-rooms	••		• •	Fifty.
(ii) containing thermo-elec	trio g	enerating I	lant	Thirty.
(iii) containing hydro-elec	trio ge	nerating pl	ant	Thirty-five.
(iv) temporary erections s	uch se	wooden	struo-	Five.
tures. (v) Others		• •	••	Fifty.
(e) Transformers, transforme equipment and other fixed plant foundations)—	r koisk 1 appa	n, sub-si ratus (incl		
(i) transformers having a r				Mrs. t. 4 — dima
amperes and over (inclu	ding fo	undations)	• • •	Thirty-five.

Description of Asset.

Number of years or p ried.

(/) Sw	(f) Switchgear, including cable connections					Twenty.			
(g) Ba	tteries		• •	••	••	Ton.			
(h) (i) disc	Underground onnecting boxe	oables, ine s	cluding jo	int box	65,	Forty.			
(ii)	Cable Duot Sys	etem	• •	••	• •	Sixty.			
(j) O	(j) Overhead lines, including supports—								
(i)	lines on steel or operating at r than 13.2 kild	nominal v	ts,	Thirty.					
	Other lines on upports	steel or r	inforced	concr	eto	Twenty-five.			
(iii)) lines on wood	supports	••	••	••	Twenty.			
(k) M	ters	• •	• •		••	Fifteen.			
≀;Se	lf-propolled voh	ic les	••	••	••	Seven.			
(m) S	tatio machine t	ools	••	• •	••	Twenty.			
(n) A	ir-conditioning	plant—	•						
(i)	static	••	.,	••	••	Fifteen.			
(ii)	portable .	••	• •	••	••	Seven.			
' (o) (i) office furnitur	e and fitt	ings	••	• •	Twenty.			
(ii)	office equipme	nt	••	••	••	Ten.			
(p) Apparatus let on hire—									
(i)	other than mot	OTS	• •	••	••	Seven.			
(ii)	Motors	••	••	••	••	Twenty.			
D. Asse other	ets purchased wise provided f	second h or in this	and and Table	assets	not	Such reasonable period as the Provincial Government determine in each case, having regard to the nature, age and condition of the asset at the time of its acquisition by the owner.			