

REPORT OF THE POWER TARIFF POLICY

CHAPTER I.

INTRODUCTORY.

In pursuance of the provisions of the Electricity (Supply) Act of 1948, the State Governments in India constituted the State Electricity Boards in their respective States as envisaged under that Act in the course of the period from 1950 to 1961. These State Electricity Boards are charged with the general duty of promoting the co-ordinated development of the generation, supply and distribution of electricity within their respective States in the most efficient and economical manner with particular reference to such development in areas not for the time being served or adequately served by any licensee. While most of the State Governments have entrusted their respective State Electricity Boards with the entire responsibility for generation, transmission and distribution of electricity including the construction of new power generation projects, some State Governments like Mysore, Andhra Pradesh, Orissa, etc., have retained the construction of power generation schemes in their hands. Under the Electricity (Supply) Act, 1948, the State Electricity Boards are enjoined not to work at a loss as far as practicable, after taking credit for any subventions from their respective State Governments and to adjust their tariffs accordingly from time to time. In the case of private company electrical undertaking the Electricity (Supply) Act, 1948, has set out in detail the framework of their financial operations and the ceiling of profit which they could aim at. Similar indication regarding the profit margin to be aimed at by the State Electricity Boards has not been specified in the Act.

2. Adequate availability of electricity is the primary requisite for large-scale industrial and agricultural development in the country. Hence, planned development of electricity generation, transmission and distribution on an ever-increasing scale has become an essential part of the Five-Year Plans undertaken in the country. The First and Second Five-Year Plans more or less synchronized with the period when the State Electricity Boards were being set up by the various State Governments. At the commencement of the Third Plan, State Electricity Boards were functioning in all the States. As power development is capital intensive and the investments therefor would be on an ever-increasing scale, it has been emphasised in the Third Plan that electricity undertakings in the public sector should earn reasonable surpluses and provide resources for future development and to this end, they should readjust their tariffs and electricity duties. In this context, a review of the working of the State Electricity Boards in relation to their financial returns has been engaging the attention of the Government of India for some time past. The subject was also discussed at the Conference of Irrigation and Power Ministers held at New Delhi in January 1964. The conference noted that the financial position of most of the Boards in the country was unsatisfactory and that in the interest of promoting healthy power-development, immediate steps were necessary to put the State Electricity Boards on a sound financial footing. In pursuance of the decision taken at the conference, the Government of India in the Ministry of Irrigation and Power in their Resolution No. EL. II. 3(1)/64, dated the 24th April 1964, as subsequently amended by their Resolution No. EL. II. 3(1)/64, dated the 29th June 1964, have constituted a Committee consisting of the following to examine the whole question :—

Convenor.

1 Shri R. Venkataraman, Minister for Industries, Madras.

Members.

2 Shri M. P. Sinha, Minister for Power, Bihar.

3 Shri Balwant Rai Mehta, Chief Minister, Gujarat.

4 Shri S. G. Barve, Minister for Industries and Electricity, Maharashtra.

5 Shri Rizak Ram, Minister for Irrigation and Power, Punjab.

6 Raja Harish Chandra, Minister for Power, Rajasthan.

Members.

- 7-Shri Girdhari Lal, Minister for Power, Uttar Pradesh.
 8 Shri T. K. Ghosh, Minister-in-charge of Commerce and Industries, Cottage and Small-scale Industries and Co-operation Departments, West Bengal.
 9 Shri V. V. Chari, Additional Secretary, Ministry of Finance, Government of India, New Delhi.
 10 Shri K. P. S. Nair, Vice-Chairman, Central Water and Power Commission, New Delhi.
 11 Shri M. K. Gopaliengar, Chief (Power), Planning Commission, New Delhi.

Member-Secretary.

- 12 Shri N. S. Vasant, Secretary, Delhi Thermal Project Control Board.

A copy of the resolution of the Government of India is in Appendix I. The Committee also invited representations of such of the State Governments and Electricity Boards as were not members of the Committee to present their views on the terms of reference.

3. The terms of reference of the Committee are as follows :—

(i) To suggest ways and means of improving the revenues of the various State Electricity Boards and also the income from electricity duty; and

(ii) to suggest the pattern of relationship between the tariff and electricity duty. The Committee has been asked to submit its report to the Government of India in the Ministry of Irrigation and Power not later than the 30th September 1964.

4. The Committee held four meetings to examine the financial working of the State Electricity Boards and to finalise its report to the Government of India. The first meeting of the Committee was held at Ootacamund on the 22nd February 1964 when the broad principles to govern the working of the State Electricity Boards were discussed. At its second meeting held on the 28th and 29th May 1964 at New Delhi, the Committee formulated the issues to be considered by it. These are set out in Appendix II. Based on the decisions of the Committee at the first and second meetings, relevant data from the various States were collected and a note was prepared and circulated on the various issues for consideration at the third meeting of the Committee held at Madras on the 7th and 8th August 1964. These are presented in Appendix III (Statement Nos. I to V). The third meeting held at Madras was attended by the representatives of all the States and all the points were considered in detail and the consensus of opinion on the various issues was ascertained. A draft report was prepared based on these views and adopted at the fourth meeting of the Committee held at New Delhi on the 6th and 7th October 1964.

5. It may be mentioned that some of the issues covered by the terms of reference of this Committee have already been the subject-matter of the Report of the Working Group on Price Policy for Electricity set up by the Planning Commission. The Working Group consisted of officials of the Ministry of Irrigation and Power, Government of India and Planning Commission and three Chairmen of State Electricity Boards. The recommendations of the Working Group have been fully taken into account by this Committee. Under the Electricity (Supply) Act, 1948, the State Electricity Boards are constituted by the State Governments and the Boards operate under the overall policy control of the State Governments. Moreover, the capital investments of the State Electricity Boards are mostly from the loans advanced by the State Governments. The State Governments have, therefore, vital interest, financial or otherwise in the sound working of these Boards. The Committee naturally, has taken full note of the views of all the State Governments on all the issues covered in this report.

6. *Approach to the problem of improvement of financial working of the State Electricity Boards.*—India is a vast country and the development of electricity and the conditions obtaining at present in regard to the generation, transmission and distribution of electricity vary from State to State and affect the functioning of the State Electricity Boards. For

instance, in Assam, Bihar and certain other States, development of power generation under the auspices of the Electricity Boards is just underway while in States like Madras, Madhya Pradesh, Punjab and certain other States, the State Electricity Boards already manage a large complex of generating stations, and transmission and distribution systems. Although Maharashtra and West Bengal are well advanced industrially and the growth of power development has generally kept pace with the needs of industrial expansion in those States, the licensees are in command of most of the developed and paying areas. While Gujarat, to a large extent depends on thermal power-supply resulting in fairly stiff tariff rates Punjab, Kerala and Mysore are in a more favourable position as cheap hydro-supply is available in those States. Madras, Punjab and Andhra Pradesh are well ahead in their rural electrification programme. As already mentioned, while some State Governments have retained the construction of power projects in their hands, others have entrusted this responsibility to the State Electricity Boards. It would, therefore, be appreciated that this Committee could not exhaustively look into all the aspects which stand in the way of better performance financially of each State Electricity Board individually. The Committee could only look at the problem from an All-India angle and to consider and recommend only on those general issues which are covered by the terms of reference. The specific issues pertaining to individual State Electricity Boards will have to be looked into and settled by the State Government and the State Electricity Board concerned.

7. A view has been expressed that the State Electricity Boards share the general characteristics of manufacturing industries and that as State enterprises they must earn a return comparable to that obtainable in the organized industrial sector. This view should not, however, be taken to imply that the State Electricity Boards are purely commercial and industrial concerns, functioning on a profit motive. Under the Act, the State Electricity Boards are statutory bodies intended to play a promotional role in the matter of power development in their respective States and are to be guided by the State Governments in matters of policies. They cannot, therefore, view each and every one of development activities exclusively from the point of view of profits or return. The Boards have necessarily to subserve the socio-economic policies of the State. For instance, rural electrification programme may not be paying judged from commercial standards and the State Electricity Boards, unlike private company electrical undertakings have to implement this programme in the national interests and having regard to the indirect benefits accruing therefrom to the community at large. Thus the State Electricity Boards, apart from being national and public utilities stand on a footing with obligations and responsibilities different from other commercial and industrial enterprises including the Company Electricity Supply Undertakings. They are in effect commercial-cum-service organizations. In the present state of our national economy and the development ahead, it may not be appropriate to expect the State Electricity Boards to immediately function on a financial level comparable to the similar undertakings in advanced countries. The financial position of the State Electricity Boards is also bound to improve *pari passu* with the development of the country's economy. The Committee, however, does not imply that there is no need for any standard to gauge the financial efficiency of State Electricity Boards. Admittedly, financial return is one of the accepted standards to judge the efficiency of any undertaking. On the other hand, the Committee would only like to caution that it will be inappropriate to apply without any qualifications the standards adopted elsewhere or to industries and commercial undertakings to the State Electricity Boards in this country. But efforts will have to be made stage by stage over a period of years to progressively improve the financial position.

8. It is observed from the data received from the various State Electricity Boards in respect of the year of account 1962-63, that except Madras, Mysore and Madhya Pradesh and Uttar Pradesh the other State Electricity Boards were not in a position to pay even interest charges on the loans advanced by the State Governments. During 1961-62 the return on capital had varied from a deficit in the case of Assam to 10 to 15 per cent. in the case of Mysore without payment of interest on capital investment. If the duty collected by the State Governments on the consumption and sale of electricity was included in the revenues of the Boards the return improved from 0 to 18 per cent for Assam to 13 per cent for Mysore. The return in the case of all the Boards except that of Mysore was much

below the return of 12 per cent suggested by the Working Group appointed by the Planning Commission, on Price Policy for Electricity in 1964. In some of the States, considerable improvement in revenues has therefore to be made before the Boards could be in a position, to pay the interest charges on loans advanced by the State Government in full. It would hence be unrealistic to expect these Boards to earn immediately adequate return to plough back a portion of it on their expansion programme after meeting the operation and maintenance charges, contributions to depreciation and general reserves and payment of interest charges in full and tax liabilities. (In the circumstances, the Committee considers that the immediate objective should be that all State Electricity Boards should be brought to a position of self-sufficiency within a specified period when they could meet from their revenues the operation and maintenance charges, contribution to depreciation and general reserves, payment of interest charges in respect of open market and Government loans. After reaching this first stage, the State Electricity Boards should set on their next objective to achieve a balance revenue after meeting the expenditure and charges mentioned above which would leave them with some resources to finance their expansion activities.

9. The following further points have been suggested as having a bearing on the principles of fixing tariffs :—

(i) Increase in the cost of fuel or other factors for generation should be offset by economy in cost of operation under other items so that the tariff rate need not be increased with every increase in cost.

(ii) The scope for omitting some of the transmission voltages and reduce the diversification and multiplicity now in vogue.

(iii) The scope for Central generation of power to reduce cost.

(iv) The scope for uniformity of grid rates in the several Regional Grids now organized.

(v) The scope for reducing cost by investigating the operational efficiency of the power stations, particularly the older stations, and improving their efficiency. The technical assistance of the Central Water and Power Commission may be availed of in this regard.

While appreciating the relevancy and significance of these points, the Committee feels that each one of them has to be gone into greater detail, and data gathered before considering the guidelines and principles to be evolved on each.

10. With this background and approach, the Committee has proceeded to analyse the various difficulties pointed out and the issues raised by the State Electricity Boards which stand in the way of achieving better financial results by them.

CHAPTER II.

11. *Capital structure.*—At present, capital of the State Electricity Board is made up from three sources, viz., loans received from the State Governments, the open market borrowings of the Board and the internal resources of the Board (i.e., accumulations in the Reserve and Depreciation Funds). The loans from the State Government, however, predominate in the capital structure. While advancing the loans under section 64 of the Electricity (Supply) Act, 1948, the State Government prescribes the terms and conditions on which the loans are sanctioned by them from time to time. Some of the State Governments have prescribed the terms of repayment of the loans in addition to the rate of interest, etc., while others have not made any stipulations regarding the repayment of the loans. It is, however, observed that section 67 of the Electricity (Supply) Act, 1948, which deals with the allocation of the revenues of the Board does not provide for repayment of the loans received from the State Government from the revenue of the Board. It is also observed that while section 68 of the Electricity (Supply) Act, 1948, permits to a certain extent the repayment of the open market loan floated by the Boards from out of the accumulations in the Depreciation Reserve Fund, the said fund cannot be drawn upon to repay the loans from the State Government. Thus under the Electricity (Supply) Act, 1948, as it stands at present, the State Electricity Boards could repay the loans to the State Governments either by floating open market loans or by getting fresh loans from the State

Government themselves. Otherwise these loans will have to be treated as perpetual loans by the State Governments without anticipating any repayment from the Boards. The State Governments, however, will have the obligation to repay the loans received from the Central Government as also their open market borrowings.

12. The Electricity (Supply) Act, 1948, does not provide for repayment of loans from revenues presumably because the depreciation reserve created could be deemed to serve the purpose of replacing the assets when they are worn out. In a public utility concern, too great a burden should not be placed on the consumers by fixing the tariff so high as to provide for the replacement of assets as well as for loan redemption. This view assumes that the Depreciation Fund itself is adequate to replace the assets. The cost of assets has, however, progressively been on the increase and the Depreciation Fund provided as per the existing provisions of the Electricity (Supply) Act, 1948, has proved to be inadequate to meet the replacement costs. This suggests the need for suitably enhancing the rate of yearly contributions to the Depreciation Fund by amending the Act. The Committee suggests that this might be done with the assistance of the experts of the Central Water and Power Commission.

13. Loans constitute almost the entire capital structure of the State Electricity Boards, payment of interest in respect of this loan capital is found to be a heavy burden on the Boards. With the present rate of power development and that anticipated, the capital outlays by the Boards will be on this increase year after year and the interest burden on the Boards will also correspondingly increase.

14. In any examination of the financial position of the Board, it is necessary to rationalise the capital structure of the State Electricity Board. The Committee has considered the following three alternatives in this respect :—

(a) Allowing the existing position to continue as provided in the Electricity (Supply) Act, 1948, without any specific provision for amortisation of debt.

(b) A portion of the capital might be converted as share capital to be taken up by the Government and the rest as repayable loan capital.

(c) While retaining the capital structure purely as loan capital, a nominal provision may be made for repayment in the course of, say, 100 years.

In this connection, a pattern of financing the Electricity Boards' programmes suggested by an Advisory Committee appointed by the Government of Maharashtra was also brought to the notice of the Committee. The broad features of this scheme are set out in the Appendix IV, for information.

15. The course suggested in (b) above has already been recommended by the Working Group on Price Policy for Electricity set up by the Planning Commission. The Working Group has suggested that the Electricity (Supply) Act, 1948, should be amended to enable the Electricity Boards to rationalise the present financial structure of these undertakings in such a way that a part of the total capital is treated as equity capital and the rest as returnable loan capital. The Working Group has also recommended that the Electricity (Supply) Act, 1948, should specifically provide for repayment of a part of the debt and that the provision in section 67 (x) of the Electricity (Supply) Act, 1948, which lays down that a portion of the surplus revenue should be utilised for reduction of tariff and the balance should be credited to the State Revenue, should also be deleted. The merit of the suggestion to convert a part of the loan capital of the Boards into equity capital is that it will reduce the interest burden on the Electricity Boards. But it will affect the interest of the State Governments adversely. The portion of the capital if retained as loan and not converted into equities will yield a steady return in the shape of interest to the State Governments. If a portion of the loan capital is converted into equity capital, no interest charges thereon will be payable by the Board. The profits of the Board in such a position will attract income-tax correspondingly reducing the net amount distributable to the State

Governments. Further, to yield the quantum of dividend equivalent to the interest charges foregone by the State Government by the conversion of a portion of the loan into equity capital, the Board would have to earn almost twice the quantum of interest charges in view of its liability to pay income-tax before declaration of dividends. When the present position is that most of the State Electricity Boards are finding it hard even to earn sufficient revenues to meet the interest charges to the State Governments in full, it will not be realistic to expect them to earn additional revenues to pay dividends to the State Governments on equity capital equivalent to the interest foregone by the State Government, and that too after paying the income-tax. Again, under such an arrangement the Board is under obligation to repay the loan capital. This will meet with the same difficulties as have been prescribed in paragraph 11 though the capital to be repaid would be lower. Hence the consensus of opinion among the State Governments have not been in favour of the proposal to convert a part of the loans advanced by the State Governments into share capital.

16. The course suggested in item (c) in paragraph 14 above regarding repayment of loans advanced by the State Governments over a long period of, say, 100 years might mitigate the hardships to certain Electricity Boards in complying with the terms of the State Governments to repay the loans in shorter periods. On the other hand, such provision would involve repayment of loans advanced by the State Governments by the other Boards also in respect of whom no such repayment has so far been stipulated. As most of the Boards are still striving to meet the interest charges to the State Governments in full, it will be a handicap to them to repay the loans also immediately however small the quantum of such repayment might be. Some of the State Governments would like to have steady interest payments from the State Electricity Boards as a source of perpetual revenue rather than permitting the Boards to wipe off gradually their debt to the State Governments as and when the Boards enter an era of prosperity in their financial working which is bound to occur sometimes in the future. Their view is also that as the loans capital increases the revenues of the Boards would also correspondingly increase enabling them to pay the entire interest charges to the State Governments and that there need not be any apprehension that interest charges would be too much of a burden on them.

17. Some of the power projects in the country are receiving aid from Foreign Agencies like the World Bank, who, however, insist on provision for repayment of loans advanced to these projects. The proposal at (a) of paragraph 14 above will not, in itself, answer in full the needs of the Electricity Boards. It would be desirable to make an enabling provision for repayment of loans advanced by State Governments to the State Electricity Boards.

18. The consensus of views is that there is no need for a major change in the present capital structure of the Board and any part of the capital need not be converted into equity capital. With a view, however, to enable such of the Boards as are in a position to do so, to repay a portion of the loan capital, the Committee recommends that the provisions of section 67 of the Electricity (Supply) Act, 1948, be amended to provide for appropriation of the revenue remaining in balance after meeting the liabilities under items (i) to (ix) to a Development Fund and item (x) of the section 67 may be deleted. A further provision may be incorporated to enable the State Electricity Boards to utilise the accumulations in this fund for repayment of loans.

19. As regards the disposal of the surplus of the Electricity Board under the existing section 67 (x) of the Electricity (Supply) Act, 1948, two broad views were expressed by the States. One view was that such surplus should be left with the Electricity Board itself for development purposes particularly so when the Electricity Board opts for repaying the State Government loan. Another view expressed was that half of the surplus should be merged with the consolidated fund of the State as at present provided in the Act, especially when the Board does not opt for repaying the State Government loan. The Committee would recommend both the alternative views set out above and the existing section 67 (x) may be amended accordingly making it permissible to adopt either of the courses.

CHAPTER III.

20. *Objective in two phases—First phase.*—From a study of the data furnished by the various State Electricity Boards regarding the capital assets, revenues and the percentages of net return on the capital, it is seen that during the year 1962-63, only Madras, Madhya Pradesh, Uttar Pradesh and Mysore State Electricity Boards were able to pay the interest charges in full to the respective State Governments. The net return of the Punjab State Electricity Board falls short of the interest charges payable to the State Government by a small margin. As a majority of the State Electricity Boards have not been able to earn sufficient revenues to pay even the interest charges to State Governments, the immediate aim should be to suggest a suitable upward adjustment of tariffs by these Electricity Boards so as to enable them to pay atleast the interest charges to the State Governments without default after meeting the operation and maintenance charges, depreciation and the general reserve and this may be achieved in three years. The period required for achieving this objective was discussed in detail. Certain States like Assam, Bihar and Rajasthan felt that they would require a longer period to attain the first phase of the objective than the three-year period suggested. It was also pointed out that within the period stipulated for attaining the first phase of the objective it would not be possible for them to clear the accumulated arrears of interest payable to the State Governments. Based on the consensus of views of the States the Committee recommends that the first phase of the objective should be to aim at higher revenues by the Electricity Boards sufficient to cover the following four items :—

- (i) Operation and maintenance charges,
- (ii) Depreciation,
- (iii) General reserve, and
- (iv) Interest charges on loan capital provided that accumulated arrears of interest, if any, need not be provided for.

It should be the endeavour of each Electricity Board to realise this within a period of three to five years from now. The Electricity Boards which have already achieved the first phase should aim at the second phase of the objective dealt with below.

21. Another point considered by the Committee in regard to payment of interest by the State Electricity Board on the loans advanced by the State Governments was whether full interest charges need be paid by the Boards in respect of construction capital also as during the gestation period, the capital invested will not be productive. It is observed that while some State Electricity Boards are paying interest charges on construction capital also, in respect of certain other Boards, the interest charges on the construction capital is being capitalised. As in a number of State Electricity Boards, the proportion of construction capital out of the total capital outlay is very high it is felt that it may not be equitable to expect these Boards to pay interest charges on the construction capital during the gestation period. The practice of capitalising the interest charges on construction capital is in accordance with well-known Commercial Principles. The Committee would suggest that this should, wherever possible, be followed.

22. The Committee has observed that the rates of interest on loans advanced by the State Governments to the State Electricity Boards are not uniform throughout the country. The State Governments generally charge an extra percentage as service charges over and above the rates of their borrowing either from the Central Government or from the open market. The Committee would suggest that uniform principle in the matter of fixation of such interest rates should be evolved and followed by all State Governments. The service charges should be kept down to the minimum possible.

23. *Second phase of the objective.*—When once the State Electricity Boards have reached the stage of self-sufficiency in which they are able to meet from their revenues the operation and maintenance charges, contributions to depreciation and general reserves and interest charges on loan capital, they should strive to earn a certain amount of surplus for financing further power development programme. In the view of the Committee, the net

return to be earned by the State Electricity Boards after meeting the operation and maintenance charges, contributions to depreciation and general reserves and interest on loan capital, might be fixed at 3 per cent on capital base. This would amount to a return of 11 per cent taking also into account the electricity tax/duty levied by the State Government, after meeting operation and maintenance charges and depreciation, i.e., interest charges 6 per cent, net profit 3 per cent, general reserve $\frac{1}{2}$ per cent, electricity duty $1\frac{1}{2}$ per cent. The above return of 11 per cent compares well with the return of 12 per cent suggested by the Working Group on Price Policy for Electricity appointed by the Planning Commission and could therefore be considered as realistic and reasonable. Mysore, Madras, Madhya Pradesh, Punjab and Uttar Pradesh State Electricity Boards which have already attained or almost attained the first phase of objective might immediately proceed to realise the second phase of the objective of earning at 3 per cent net return while the other State Electricity Boards can embark on this second phase only after realising the first phase of the objective and they might require another 3 to 5 years thereafter.

24. *Reduction of costs wherever possible.*—In aiming at a good financial return, it would no doubt be necessary for the State Electricity Boards to have recourse to suitable enhancement of tariffs besides taking all possible economy measures in working expenses. At the same time as electricity supply is a monopoly business, care has to be taken to safeguard against the tendency to push up rates of tariff as also of the electricity tax or duty beyond certain levels as it may handicap the overall socio-economic development. It is imperative that every Electricity Board should strive to operate at the maximum efficiency and economy. The State Governments have adequate powers under the Electricity (Supply) Act, 1948, to watch the efficiency and performance of State Electricity Board and take necessary corrective action. The Committee would like to emphasise that without recourse to such action by the State Governments, the Boards themselves would be well advised to always keep the costs of generating, transmitting and distributing electrical energy including overheads as low as possible and to take necessary and suitable steps to this end by periodical reviews. Specific factors contributing to high costs were brought to the notice of the Committee and they are examined below.

25. *Fuel cost.*—In thermal power generation, the cost of fuel, viz., coal and furnace oil forms a major element and the cost of thermal power generation also depends on the quantity and price of the fuel element. The Committee notes that the coal prices are fixed mainly with reference to the moisture and the ash content of the coal and not on the basis of the calorific value of the coal. In view of the limited availability of high grade coal which is required for metallurgical purposes, only low grade coal with low calorific value and middlings from washeries are at present mostly made available for thermal power stations. As the cost of transportation is the same for high grade as well as low grade coal, the supply of low grade coal to thermal stations in regions far away from collieries boost up the cost of power generation to uneconomic levels. There is force in these arguments and the situation has to be remedied. The Committee, therefore, recommends that the Government of India should consider (a) the possibility of linking the price of coal supplied from the collieries to the thermal stations to the calorific value of the coal supplied also and (b) the thermal stations located far away from the coal fields should as far as possible, be supplied with better quality coal so that there might be savings on transport charges. Incidentally, the Committee also considers that there should be proper co-ordination between the Electricity Boards and the National Coal Development Corporation in the matter of exploitation of coal.

26. *Cost of power purchased from corporate bodies.*—One of the difficulties pointed out by certain State Electricity Boards is that the corporate bodies which own and operate power houses sell their power to the State Electricity Boards at a high price based on a wide profit margin and there is little margin of returns left to the Electricity Boards and if they were to provide even a small margin their tariff rates to their consumers has to be kept high. In the view of the Committee, the Corporations should fix a reasonable price for supply of power in consultation with the State Electricity Boards concerned.

27. *Cost of power sold by State Government to Electricity Boards.*—Certain State Governments like Andhra Pradesh still construct and operate generating stations. They sell the power to the State Electricity Boards for distribution. It has been stated that the sale price of power by these State Governments is fixed on a no-profit-no-loss basis. The Committee recommends that the fixation of actual price in each such case should be left to be negotiated and settled between the State Governments and the State Electricity Boards concerned.

28. *Stepping up of revenues.*—If the objectives defined in the two phases have to be achieved, the State Electricity Boards will have necessarily to aim at increased revenues by suitably revising their power tariff rates upwards. As conditions regarding power development as also cost of generation vary from State to State, the Committee does not consider it practicable to formulate any uniform pattern of tariff for various classes of consumers to be adopted throughout the country. It is a well-tryed principle and in formulating the tariff structure of any electricity supply undertaking, the end cost both at High Tension and Low Tension ends should be arrived at by taking into account all items of operation and maintenance expenditure including contributions to Depreciation and General Reserves, and interest charges payable on the capital invested as also the transmission and distribution losses. The end cost so arrived at should normally be kept in view when framing the tariff rates as a whole so that the realisation does not fall short of the costs. Some adjustments in tariff rates between different classes of consumers are also made taking into account the load factor, diversity factor, the time of supply and maximum demand of the consumer concerned and all other relevant factors. Fixation of tariff is not mere arithmetic. An important principle to be kept in view is the capacity of the consumer to pay and the purpose for which power is to be utilised including the special needs of the consumer. For instance, the rate for supply to textile industry can be at a higher level as compared to an electro-chemical or metallurgical industry inasmuch as the cost of power element in the total cost production of the end-product in the textile industry is negligible while it is very high in the case of an electro-chemical or metallurgical industry. Similarly, the tariff for agricultural consumers has to be kept low as compared to the other classes of Low Tension consumers with reference to the consumers' capacity to pay. In other words, in the view of the Committee, the tariff rates should generally be fixed on the principle of "what the traffic can bear."

29. Under sections 46 and 49 of the Electricity (Supply) Act, 1948, the State Electricity Boards have wide powers to adjust their tariff rates in respect of supply to various categories of consumers from time to time. As such, normally they should be able to so adjust their rates for power supply that they could earn the financial returns aimed at under the two phases of objectives referred to above. It is, however, observed that in pursuance of their role to subserve the economic policies of the State Governments, the State Electricity Boards have to offer low rates far below the normal Grid rates in respect of power-intensive industries for supply of High Tension Power. As the electro-chemical and other power-intensive industries are bulk consumers of power, the loss sustained by the State Electricity Boards on account of offering low rates to these industries is heavy and the Boards find it difficult, if not impossible, to make up the loss from the profits earned from other classes of consumers. It has been pointed out that offering of low rates with a view to attract industries to a particular location leads to unhealthy competition. The Working Group on Price Policy on Electricity has, therefore, recommended that the Central Government should establish certain conventions to be followed in the matter. The Committee would observe so long as the cost of generation varies from State to State and with reference to the nature of generation any principle of having a floor rate linking the sale price of power supply to electricity-intensive industries to the cost of generation will place at a disadvantage States like Gujarat where predominantly, thermal power is generated at high costs. If the rates offered are competitive with those obtaining elsewhere, the Boards concerned are bound to sustain losses. The Committee considers that as a general rule, the Electricity Boards should supply power only on rates which provide at least for operation and maintenance costs (including depreciation) and interest.

The case of supply of power to the electricity-intensive industries is, however, discussed further below.

30. The Committee considered at length the question as to how the loss to the Electricity Boards should be recouped if in some special cases they are called upon to supply power at low rates which do not meet in full operation and maintenance costs (including depreciation) and interest. The Working Group on Price Policy on Electricity, appointed by the Planning Commission has suggested in this connection that if in any case, the rate for particular classes of consumers is required to be subsidised, it should be done as a deliberate act of policy to be financed as far as possible directly and that the subsidisation of one class of consumers by other may be restricted to a limited extent only. Opinion has been varied as to the procedure to be followed to recoup the losses to the State Electricity Boards as a result of offering low rates at the instance of the State Government to power intensive-industries. One view is that the shortfall should be made good as follows :—

(a) If the rate charged is in excess of the operation and maintenance costs but does not fully cover the interest element, the unrecouped interest element be given by the State Government to the Board as a subsidy.

(b) If the rate falls short even of operation and maintenance costs, the subsidy to be given by the State Government will be equal to the shortfall on such costs as well as the interest element. The above view is more or less in line with the recommendation of the Working Group on Price Policy of Electricity appointed by the Planning Commission.

Another view held is that the shortfall in the full costs and interest charges on account of concessional supply should be made good as follows :—

(a) The Electricity Boards shall endeavour to so fix the rates on the various categories of High Tension consumers that the net realisation from them will more than offset the element of concession given to the special class of consumers, that is, the full operation and maintenance costs including depreciation and interest will be recovered from the High Tension consumers taken as a whole.

NOTE.—The above view is based on the consideration that there is very little scope to pass on the shortfall caused in High Tension supply to Low Tension consumers, bulk of whom who are agricultural consumers are themselves being heavily subsidised, and that it will be inequitable to make the domestic consumers to bear an additional burden on account of loss in High Tension supply.

(b) If the Electricity Boards are not able to fully recoup the shortfall by the process of adjustment of the tariffs applicable to High Tension consumers, the remaining shortfall shall be made good by the State Government who will subsidise the Board to the extent necessary.

When considering the above proposition, some Boards have expressed the view that the shortfall on account of concessional High Tension supply might be made good by adjustment in the tariff rates as a whole including those of Low Tension supply instead of only High Tension supply. While holding this view, the representative of Maharashtra State strongly pressed the point that in no case should any consumer get electricity at a rate which does not fully compensate the operation and maintenance costs (without including interest). Opinion among the States in this regard has been divided. The representatives of the Central Government on the Committee strongly pleaded that the rate for supply of electricity should under no circumstances be lower than what is justified by the cost of operation and maintenance, depreciation and interest. They also suggested that in case a State Electricity Board was required to offer a lower rate for any particular industry, the differential should be subsidised by the State Government concerned. No single proposition can be recommended for adoption and the Committee would place on record all the above views for consideration by the Government of India.

31. It has been suggested that the expert advice of the bodies like the Central Water and Power Commission regarding the principles to be adopted in fixing concessional rates for electricity-intensive industries might be of avail on this point. In particular, independent expert advice would be valuable regarding the extent of concession that may be shown

to a power intensive industry having regard to the maximum rate the industry could pay with reference to the cost structure of the end products. The Committee takes note of the above suggestions and would recommend that the Government of India might make such expert advice available whenever requested.

CHAPTER IV.

32. *Cases where generation is not with the Boards and also cases where distribution to some extent is with the licensees.*—In States like Andhra Pradesh, Mysore, etc., the generation of power is still retained by the State Governments themselves and the State Governments sell the power generated by them to the State Electricity Boards for distribution. Under the Electricity (Supply) Act, 1948, the State Electricity Boards are charged with the general duty of co-ordinated development of the generation, supply and distribution of electricity within the State in the most efficient and economical manner. Interests of co-ordinated electrical development might perhaps be furthered by the entire generation of power also being left to the charge of the State Electricity Boards. But in certain cases where power generation forms part of multi-purpose projects or where special agreements exist with foreign aid agencies, the State Governments would find it difficult to transfer the power generation units to the State Electricity Boards. In such cases, the Committee feels that it would be best to have the arrangements settled between the State Governments and their Boards. Mysore and Orissa Governments felt that the handing over of power generation to the Electricity Boards may be left to be settled between the State Governments and the Boards in all cases.

33. *Licensees' undertakings.*—According to the statistics available for the year 1962-63, there are 238 electrical licensees operating in the country with a total investment of about Rs. 173 crores. A majority of these licensees are operating in the States of Maharashtra, Gujarat, Uttar Pradesh and West Bengal. Most of these licensees cater to concentrated urban loads and are able to earn a good return on their capital base even without inflating their tariff rates. In extending power supply, they generally go by the strict principle of remunerative return and are reluctant to embark on intensive rural electrification schemes in the interest of national development, as rural electrification is not paying, judged by commercial standards. The Committee noted that a proposal for enacting a suitable legislation in respect of facilitating acquisition of inefficient unremunerative or unprogressive private electricity supply undertakings was under consideration of the Government of India. It was also noted that the question of reviewing the basis of compensation payable to acquire licences was also under their consideration. The Committee hopes that while fixing the revised basis of compensation, the Government of India will ensure that the cases where undertakings are acquired on account of inefficiency are not treated on the same footing as other acquisitions.

34. *Concessional finance for rural electrification.*—Except for Madras, Andhra Pradesh and to some extent, Punjab, all other State Electricity Boards have yet to make considerable leeway in the matter of rural electrification. These Boards have begun to evince keen interest in the matter of rural electrification and are embarking on intensive rural electrification programme. In view of the long distribution lines involved with sparse loads and the low tariff rates to be offered to agricultural consumers as an incentive, rural electrification programme cannot yield adequate return as yet. Even then as a matter of socio-economic policy designed to uplift the rural areas economically particularly in the field of increased food production which is a national objective, concerted efforts are necessary to intensify rural electrification. The rural extension schemes normally take five years to yield even the low return anticipated of them. The State Electricity Boards would, therefore, welcome funds to finance these schemes on easy terms of payment of interest over a long period. At present, the Government of India advance loans to the State Governments to finance rural electrification schemes included in the Third Five-Year Plan and only interest charges (payable in all in 25 instalments) are being collected in the first five years. The balance of 20 instalments of interest charges and the principal repayable in 20 instalments are together collected from the sixth year onwards. The Government of India may

explore the possibility of granting loans for rural electrification schemes which will be interest-free during the first five years. The Life Insurance Corporation may also require to be persuaded to grant loans for rural electrification purposes at a reasonable rate of interest. The Committee recommends—

(i) Rural Electrification schemes designed to improve agricultural production should be taken up on a more extensive scale than is being done at present ;

(ii) the possibility of financing Rural Electrification Programme by loans interest free for an initial period of five years may be explored;

(iii) advantage may be taken of assistance if offered by the Life Insurance Corporation of loans for rural electrification;

(iv) the rate of agricultural tariff should be consistent with the capacity of the agriculturist to pay.

In view of the urgent need to step up agricultural production, the State Electricity Boards are invited to consider whether the minimum guarantee payable by the agricultural consumer now levied by each Board can be either reduced or abolished.

35. *Principles that should govern the fixation of rates relating to electricity tax or duty.*—Tariffs for supply of power are generally guided by the principle of “ what the traffic can bear ”, keeping in view the cost of power at the point of supply and also having promotional rates for encouraging consumption. The levy of electricity tax or duty should not take away the promotional features of the tariffs and distort the tariff structure evolved by the Board. State Governments should not also think in terms of earning unduly large return from electricity duty or tax merely with a view to improve their revenue position. For these reasons, the Working Group on Price Policy for Electricity appointed by the Planning Commission has recommended that—

(i) the duty on the various classes of consumers should be on an *ad valorem* basis so that the structure of tariff rates is not disturbed by the levy; and

(ii) the total revenue from electricity duties should be on a more or less uniform relationship to total capital employed say, $1\frac{1}{2}$ to 2 per cent of capital employed. The electricity duty or tax now levied by the State Governments ranges from 0.1 per cent to 3.6 per cent on the capital invested—*vide* Statement No. III. The State Electricity Boards have urged that the rate of electricity tax or duty should be limited to a particular percentage of the tariff rates although according to the principle of “ what the traffic can bear ”, there is hardly any scope for such tax or duty if and when the electricity tariff rates are already at the optimum level. The consensus of views of the State Governments, however, is that the fixation of the rates of tax or duty should be within the discretion of the State Governments. The Committee, therefore, recommends that the actual quantum and the pattern of tax which is levied may be left to the good sense of the State Governments, keeping in view all the relevant considerations set out in this paragraph.

36. *Amendments to Electricity (Supply) Act and also to Indian Electricity Act consequential to the foregoing recommendations of the Committee.*—Suitable amendments to section 67 of the Electricity (Supply) Act, 1948, as suggested in paragraphs 18 and 19 above would be necessary to provide for the creation of the Development Fund and also revising the provisions of section 68 regarding depreciation if found necessary (*vide* paragraph 12).

37. *Conclusion.*—A summary of the recommendations made in this report is given as annexure. The Committee would like to place on record their appreciation for the co-operation extended by the officers of the Government of India and the Planning Commission, the various State Governments and State Electricity Boards for furnishing all the required data and for also offering their considered views on the various points.

R. VENKATARAMAN,
Chairman, Minister for Industries, Government of Madras.

SUMMARY OF THE RECOMMENDATIONS.

1. Immediate objective of the State Electricity Board should be to achieve self-sufficiency, i.e., revenues should be earned to cover operation and maintenance charges, contributions to Depreciation and General Reserves and interest charges on loans. (Paragraph 8.)

2. As the Depreciation Reserve provided under the Electricity Supply Act is not adequate to meet the cost of replacements, the quantum of contribution to the Reserve may require enhancement and the Committee recommends that the assistance of the Central Water and Power Commission may be taken to suggest a suitable revision of section 68 of the Act. (Paragraph 12.)

3. In accordance with the consensus of opinion expressed by the State Governments, the Committee recommends that no change in the existing capital structure of the State Electricity Boards by way of conversion of the loan capital into shares (either in part or in full) need be considered. (Paragraphs 15 and 18 above.)

4. An enabling provision may be made in section 67 of the Act to provide for repayment of loans. After meeting all liabilities listed under items (i) to (ix) of the section, the balance of revenue may either be appropriated in full towards a Development Fund and utilised for repayment of loans or half the balance of revenue may be appropriated to the Consolidated Fund of the State as is the position at present. The existing provisions of 67 (x) of the Act may be suitably amended to permit adoption of either of the above courses. (Paragraphs 18 and 19.)

5. Interest charges on capital invested in works in progress may be capitalised and added to the cost of the works to be completed, if the Boards are not in a position to pay these charges during the construction stage. (Paragraph 21.)

6. Rate of interest charged by the State Governments on loans advanced to the State Electricity Boards should be fixed following a uniform principle and the State Governments' coverage for service charges over the rate of interest charged by the Central Government should be kept down to the minimum possible. (Paragraph 22.)

7. The first phase of the objective for all the State Electricity Boards should be to aim at higher revenues sufficient to cover operation and maintenance charges, contributions to the General and Depreciation Reserves and interest charges on loan capital. Boards which have not already achieved this should aim realising the objective within a period of three to five years. (Paragraph 20.)

8. As a second phase objective, the Board should aim at achieving a balance of revenue after meeting all the charges indicated in the first phase, working out a net return of 3 per cent on the capital base. Boards which have already achieved the first phase should immediately proceed to realise the second phase and the other Boards should aim at achieving the second phase within three to five years of their achieving the first phase. (Paragraph 23.)

9. Boards should keep the cost of generation, transmission and distribution including overheads as low as possible taking necessary corrective steps by periodical reviews. (Paragraph 24.)

10. The Government of India should explore the possibility of linking the coal price, among other things, with the calorific value of coal and thermal stations located far away from the coal fields should be supplied with better quality coal. (Paragraph 25.)

11. There should be proper co-ordination between the State Electricity Boards and the National Coal Development Corporation in the matter of exploitation of coal. (Paragraph 25.)

12. Corporate bodies generating and selling power to the Boards should fix reasonable price for power supplied in consultation with the consuming Board(s). (Paragraph 26.)

13. When generation is owned by the State Government, the fixation of rate of supply of power to the Board should be a matter for negotiation between the State Government and the Board concerned. (Paragraph 27.)

14. As a general rule, the Board should supply power only at rates which provide for operation and maintenance costs, depreciation and interest charges. However, in regard to rate of supply of power to energy intensive-industries, the Committee recommends that the different views expressed in regard to the principles to be followed may be placed before the Government of India for their consideration. Expert advice regarding the principles to be adopted in fixing the concessional rates of supply might be made available by the Government of India when requested. (Paragraphs 30 and 31.)

15. While observing that a proposal for enacting a suitable legislation for facilitating acquisition of licensees undertakings was under the consideration of the Government of India, the Committee recommends that in the matter of fixing compensation, a distinction may be made when undertakings are acquired on account of inefficiency. (Paragraph 33.)

16. To facilitate intensive rural electrification, the Committee recommends (a) that the possibility of getting loans interest-free for the first five years may be explored, (b) advantage may be taken of the loan assistance, if any, offered by the Life Insurance Corporation, and (c) Boards should consider whether the minimum guarantee levied by them on agricultural consumption can be reduced or abolished. (Paragraph 34.)

17. While stating the considerations relevant in the fixation of Electricity Tax/Duty, the Committee recommends that the actual quantum and the pattern of the Tax/Duty levied may be left to the good sense of the State Governments. (Paragraph 34.)

APPENDIX I.

GOVERNMENT OF INDIA, MINISTRY OF IRRIGATION AND POWER.

New Delhi, the 24th April 1964.

RESOLUTION.

No EL-II-3(1)/64.—The working of the State Electricity Boards in relation to their financial returns has received considerable attention during recent years. The subject was also discussed at the Conference of Irrigation and Power Ministers held at New Delhi on the 3rd and 4th January 1964. The Conference noted that the financial position of most of the Boards in the country was unsatisfactory and that in the interest of promoting healthy power development, immediate steps were necessary to put the Boards on a sound financial footing.

2. As decided by the Conference a Committee has been set up to examine the whole question, consisting of—

Convenor.

- (1) Shri R. Venkataraman, Minister for Industries, Madras.

Members.

- (2) Shri M. P. Sinha, Minister for Commerce and Industry, Bihar.
 (3) Shri Balwant Rai Mehta, Chief Minister, Gujarat.
 * (4) Shri S. G. Barve, Minister for Industries and Electricity, Maharashtra.
 * (5) Shri Rizak Ram, Minister for Irrigation and Power, Punjab, Chandigarh.
 (6) Raja Harish Chandra, Minister for Power, Rajasthan.
 (7) Shri Girdhari Lal, Minister for Power, Uttar Pradesh.
 * (8) Shri T. K. Ghosh, Minister in-charge of Commerce and Industries, Cottage and Small Scale Industries and Co-operation Department, West Bengal.
 (9) Shri V. V. Chari, Additional Secretary, Ministry of Finance, Government of India.
 (10) Shri K. P. S. Nair, Vice-Chairman, Central Water and Power Commission.
 (11) Shri M. K. Gopaliengar, Chief (Power), Planning Commission.

Member-Secretary.

- (12) Shri N. S. Vasant, Secretary, Delhi Thermal Project Control Board.

* Items (4) and (8) as amended by the Government of India Resolution, dated 29th June 1964.

* Item (5) as amended by the Government of India Resolution, dated 22nd August 1964.

3. The terms of reference of the Committee will be as follows:—

- (i) To suggest ways and means of improving the revenues of the various State Electricity Boards and also the income from electricity duty; and
- (ii) to suggest the pattern of relationship between the tariff and electricity duty.

4. The report of the Committee will be submitted to the Government of India in the Ministry of Irrigation and Power not later than the 30th September 1964.

M. K. KIDWAI,
Joint Secretary to the Government of India.

ORDER.

Ordered that the above resolution be communicated to the Members concerned, the State Governments, the State Electricity Boards, the Ministries of Government of India, Prime Minister's Secretariat, Secretary to the President, the Planning Commission and the Comptroller and Auditor-General of India.

Ordered also that the Resolution be published in the *Gazette of India*.

M. K. KIDWAI,
Joint Secretary to the Government of India.

APPENDIX II.

POINTS FOR CONSIDERATION BY THE COMMITTEE.

1. *Capital structure of the Board.*—Whether provision should be made for repayment of loan capital and if so what should be the percentage on the whole or part of the loan capital to be treated as repayable; whether the balance can be treated as analogous to equity capital.

2. *Objectives in two phases*—(i) *First phase.*—Revenues to cover—

- (a) (i) Operation and Maintenance charges;
- (ii) Depreciation;
- (iii) General Reserve; and
- (iv) Interest charges on loan capital.

(b) Whether interest should be charged on loan taken from Government from the beginning, if so, at what rate and for what period.

(ii) *Second phase.*—In addition a net revenue of 3 per cent on loan capital to be of use to repay open market loans; and bear in part development charges, and to cover income-tax. First phase to be achieved in three years and the second phase before the end of the Fourth Plan.

Boards already meeting objective in first phase should aim at second phase objective.

3. *Scope for improvement in revenues.*—(a) By reduction of costs, wherever possible to be investigated by individual Boards.

(b) By stepping up revenues—

- (i) Tariff to be guided by the principle of what the "Traffic can bear";
- (ii) Where rates quoted are concessional and due to Government policy, whether subsidy from State Government and subvention may be granted and whether internal adjustment in tariff structure cannot be made.
- (iii) Whether cost per unit at the distribution and should not be the influencing factor in determining rates of tariff.

4. (a) Whether in respect of Boards which are now distributing power, and generation is partly or wholly with State Government, the Board cannot take over the entire generation also.

(b) Where Government still retain generation, whether they should charge only the cost of power without adding any margin of profit.

NOTE.—In respect of Boards purchasing power from any Corporation at the rates quoted by the latter (which includes their margin of profit) whether the objectives outlined will be feasible.

5. Whether concessional finance and reduction in interest rates, especially in respect of rural electrification is necessary.

6. Take stock of the position regarding electricity duty, its incidence whether on consumer or on the Board.

NOTE.—The term "Electricity Duty" includes "Taxes".

7. (a) Whether the principles applied to tariff could also apply to duty or whether they should be distinguished?

(b) What is and will be the impact of the duty and/or taxes levied by the State Government on the tariff charged by the Electricity Board?

8. In the light of the decisions taken, what amendments are considered necessary to the Electricity (Supply) Act, 1948?

R. VENKATARAMAN.
Convenor.

APPENDIX III. STATEMENT I.

Particulars of capital and revenue of Electricity Boards, 1962-63.

Serial number	Name of the Electricity Board.	Capital assets at the end of 1962-63.			Total [column (3) + (4) + (5)]	Details of Capital.		
		Cost of completed works	Cost of works in progress.	Cost of stores.		Loan from Government.	Loan from public.	Internal resources.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		(RUPEES IN LAKHS.)						
1	Madras	13,202	2,745	1,028	16,975	12,850	1,089	3,036
2	Madhya Pradesh	4,703	785	23	5,511	5,306	..	..
3	Mysore	5,020	97	928	6,045	3,483	614	1,948
4	Assam	694	904	131	1,729	1,567	162	..
5	Bihar		4,425	787	5,212	4,585	..	627
6	Gujarat	3,135	2,025	642	5,802	4,707	775	320
7	Kerala	3,828	1,729	246				
			(A) Plus	62	5,865	4,436	359	1,070
8	Maharashtra	3,664	876	826	5,366	3,914	559	892
9	Orissa		1,913	58	1,971	1,767	204	..
10	Punjab	10,204	537	878	11,619	10,509	..	1,106
11	Rajasthan	2,253	898	46	3,197	3,197	..	..
12	West Bengal	1,071	884	350	2,305	2,118	361	96
13	Andhra	7,066	590	606	8,262	6,777	810	210
14	Uttar Pradesh .. ..	..	..	..	(K) 9,550	9,550	..	..

(A) Suspense under capital.

(K) Capital base.

APPENDIX III—cont.

STATEMENT I—cont.

Particulars of Capital and Revenue of Electricity Boards, 1962-63—cont.

Serial number.	Name of the Electricity Board.	Subvention.	Capital.		Operation and maintenance expenses including depreciation.	Net revenue [Columns (12)—(13)].	Percentage of return on capital assets in use.	Percentage of return on loan capital [Columns (7) + (8).]
			Total [Columns (7) + (8) + (9) + (10)].	Total revenue.				
(IN LAKHS OF RUPEES)								
1	Madras .. .. .	..	16,975	2,024	1,234	790	6.0	5.67
2	Madhya Pradesh .. .. .	..	5,306	782	523	259	5.5	4.90
3	Mysore .. .. .	..	6,045	668	422	240	4.9	6.00
4	Assam .. .. .	..	1,729	73	90	(—) 17	2.8 (—)	0.98
5	Bihar .. .. .	..	5,212	800	731	69	1.50	1.50
6	Gujarat .. .. .	..	5,802	867	780	87	2.8	1.69
7	Kerala .. .. .	..	5,865	400	264	136	3.6	2.84
8	Maharashtra .. .. .	..	5,366	550	503	47	1.3	1.05
9	Orissa .. .. .	..	1,971	458	449	9	0.46	0.46
10	Punjab	4	11,619	1,221	722	499	4.9	4.70
11	Rajasthan .. .. .	..	3,197	308	289	19	0.64	0.60
12	West Bengal .. .. .	..	2,569	364	382	(—) 18	(—) 0.17	(—) 0.73
13	Andhra .. .. .	..	7,797	852	771	81	1.1	1.10
14	Uttar Pradesh .. .. .	..	9,550	1,158	760	308	4.2	4.20

(C) Does not agree with assets total.

(P) Assets figure include interest on construction for which no loan is sanctioned.

(R) Difference due to closing cash balance in hand and interest capitalised.

Serial number.	Name of the Electricity Board.	Loss of revenue by the direction of Government.	Increased revenue if subsidy is taken into account. [Columns (14) + (17).]	Return of increased revenue to loan capital [Columns (18) × (100) (7) + (8)].	Interest payable on		Total [Columns (20) + (21)].	Net revenue after interest on Public loan [Columns (14) — (21)].	Percentage of column (23) on Government loan. [Columns (23) × (100) (7)].
					Government loan.	Public loan.			
(IN LAKHS OF RUPEES)									
1	Madras	366	1,156	8.30	632	42	674	748	5.82
2	Madhya Pradesh .. .. .	..	259	4.90	210	..	210	259	4.90
3	Mysore	4.0	250	6.10	167	20	187	226	6.49
4	Assam .. .. .	..	(—) 17	(—) 0.98	83	3	86	(—) 20	(—) 1.28
5	Bihar .. .. .	..	69	1.50	135	..	135	69	1.50
6	Gujarat	25	112	2.04	194	27	221	60	1.27
7	Kerala .. .. .	..	136	2.84	100	16	206	120	2.71
8	Maharashtra .. .. .	..	47	1.05	191	18	209	29	0.74
9	Orissa	40	49	2.49	37	4	41	5	0.23
10	Punjab	186	685	6.52	519	..	519	499	4.70
11	Rajasthan .. .. .	..	19	0.60	148	..	148	19	0.00
12	West Bengal .. .. .	..	(—) 18	(—) 0.73	71	9	80	(—) 27	(—) 1.27
13	Andhra	63	144	2.00	312	48	360	33	0.49
14	Uttar Pradesh .. .. .	..	398	4.20	344	14	358	384	4.02

STATEMENT II.

Details of construction, capital and interest charges of State Electricity Boards, 1962-63.

Serial number and details.	Details of capital.				Total interest charges on loan.	Whether interest on construction capital is capitalised or charged to revenue.
	Works completed and earning revenue.	Works in progress.	Stores.	Total.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(RUPEES IN LAKHS.)						
1 Madras	13,202	2,745	1,028	16,975	674	Charged to revenue.
2 Madhya Pradesh	4,703	785	23	5,511	210	Capitalised.
3 Mysore	5,020	97	928	6,045	187	Construction of stations undertaken by Government.
4 Assam	694	904	131	1,729	36	Not decided.
5 Bihar	4,425		787	5,212	135	Capitalised.
6 Gujarat	3,135	2,025	642	5,802	221	Do.
7 Kerala	3,828	1,729	246	5,865	208	Do.
8 Maharashtra	3,664	876	826	5,366	209	Do.
9 Orissa	1,913		58	1,971	41	Interest so far not paid.
10 Punjab	10,204	537	878	11,619	519	Charged to revenue.
11 Rajasthan	2,253	898	46	3,197	148	Capitalised.
12 West Bengal	1,071	884	350	2,305	80	Do.
13 Andhra	7,066	590	606	8,262	360	Charged to revenue.
14 Uttar Pradesh .. .. .	..	..	..	(K) 9,550	358	Not furnished.

(A) Suspense under Capital.

(K) Capital base.

STATEMENT III.

Details of tax/duty collected by the Electricity Boards in 1962-63 and percentage they bear to loan capital.

Serial number and details.	Loan amount.			Details of collection.			Percentage of tax/duty on	
	Government.	Public.	Total.	Tax.	Duty.	Total.	Government loan.	Total loan.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(RUPEES IN LAKHS.)								
1 Madras	12,850	1,089	13,939	175	..	175	1.4	1.3
2 Madhya Pradesh	5,306	..	5,306	..	53	53	1.0	1.0
3 Mysore	3,483	614	4,097	127	..	127	3.1	3.1
4 Assam	1,587	162	1,729	..	..	..	..	..
5 Bihar	4,585	..	4,585	..	24	24	0.5	0.5
6 Gujarat	4,707	775	5,482	..	Not available.	..	..	..
7 Kerala	4,436	359	4,795	6	..	6	0.1	0.1
8 Maharashtra	3,914	559	4,473	..	39	39	1.0	0.9
9 Orissa	1,767	204	1,971	..	44	44	2.5	2.2
10 Punjab	10,509	..	10,509	..	121	121	1.2	1.2
11 Rajasthan	3,197	..	3,197	..	..	..	..	..
12 West Bengal	2,118	361	2,479	..	38	38	1.5	1.5
13 Andhra	6,777	810	7,587	..	..	..	..	..
14 Uttar Pradesh .. .. .	..	..	9,550	..	..	..	..	..

Not furnished.

STATEMENT IV.

Details of generation, sales and sales to agriculture by Electricity Boards, 1962-68.

Serial number and details.	Generation.				Power purchase.	Total generation and purchase.	Sale of units.			Sale for Agricultural.		Cost per unit at Realisation per unit.				
	Hydro.	Thermal.	Diesel or gas.	Total.			H.T.	L.T.	Total.	Units.	Percentage on total sales.	H.T. end.	L.T. end.	H.T. end.	L.T. end.	
																(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	IN MILLION.						(IN PAISE.)									
1 Madras	2,162	455	..	2,617	224	2,841	1,411	862	2,273	501	22	5.52	14.47	5.7	12.4	
2 Madhya Pradesh	263	454	22	739	53	792	537	136	673	5	0.7	..	8.81	8.3	23.0	
3 Mysore	1,180	..	14	1,194	..	1,194	693	321	1,019	35	3.4	2.57	12.35	3.6	12.2	
4 Assam	23	..	12	35	..	35	..	29	29	..	..	..	59	..	25.4
5 Bihar .. ..	..	..	33	33	688	721	462	162	624	19	3.0	..	..	..	..
6 Gujarat .. ..	..	472	51	523	188	711	258	318	576	45	7.8	7.9	12.0	11.8	14.7
7 Kerala	716	..	..	716	60	776	483	136	619	18	2.9	1.82	7.28	2.8	18.0
8 Maharashtra ..	23	449	25	497	73	570 551 789	901	113	1,014	18	1.8 Hy Th.	6.58 9.45	20.38 22.59	5.1	20.7	
9 Orissa .. ..	..	..	..	..	789	..	..	..	..	..	..	..	..	..	..
10 Punjab	2,359	7	1	2,367	1	2,368	1,641	419	2,060	84	4.0	..	..	5.6	11.6
11 Rajasthan .. ..	..	..	..	..	..	..	30	106	136	9	6.6	..	..	..	..
12 West Bengal ..	4	164	75	243	260	503	272	48	320	2	0.6	..	..	..	..
13 Andhra	47	212	8	267	710	977	429	298	727	88	12.1	11.6	..	5.6	17.4	

STATEMENT V.

Details of power purchase by Electricity Boards, 1962-63.

Serial number and name of Boards.	Percentage of power purchase to total.	From whom purchased.	Rate per unit in Paise.	Remarks.
(1)	(2)	(3)	(4)	(5)
1 Andhra	73	Andhra Government ..	2.3	
		Tungabhadra Board ..	Not furnished.	
2 Bihar	95	D.V.C.	5.52	
		Hirakud	8.74	
		Massanjore	6.43	
3 Gujarat	26	A.E./Coy.	6.00	
		Bhavanagar Electricity Coy.	10.69	
		Tata Chemical, Mithapur.	12.5	
4 Kerala	8	Madras Board	4.54	
5 Madras	8	Neyveli Corporation ..	5.2	
6 Madhya Pradesh ..	7	Maharashtra Board ..	4.375	Provisional.
7 Maharashtra	7	Koyna	2.5	
		Tata	5.2	
8 Orissa	100	Orissa Government ..	3.4	
			1.75	
			(for supply to aluminium).	
9 Punjab	4	Punjab (Irrigation Branch).	Not furnished.	
10 West Bengal	52	Not furnished	4.5	
11 Mysore .. .. .	..	Tungabhadra Board ..	Not furnished.	

APPENDIX IV.

(PARAGRAPH 14 OF THE REPORT.)

The broad features of the arrangement suggested by the Advisory Committee set up by the Government of Maharashtra are as follows:—

(i) All the State Government loans outstanding as on 31st March 1961 have been consolidated into a single non-repayable loan having interest at 4.9 per cent which is the average rate of the total interest charges payable as on 31st March 1961. The consolidated loan should take into account the amount of interest outstanding as on 1st March 1961 after deducting from it the subsidy claimed by the Board on rural electrification during the Third Plan.

(ii) Rural electrification loans would be in perpetuity and the rate of interest for loans to be given in the Third Plan period should be 6 per cent subject to subsidisation.

(iii) The subsidy for rural electrification will be based on the amount of the loan deemed to have been used for rural electrification on a particular year and will be as under:—

For the first year 5 per cent of the loan.

For the second year 4 per cent of the loan.

For the third year 3 per cent of the loan.

For the fourth year 2 per cent of the loan.

For the fifth year 1 per cent of the loan.

(iv) All other loans sanctioned and disbursed by the State Government in each year of the Third Plan should be deemed for financing works of major generation and distribution. These loans will be repayable over 30 years and will be interest-free for the first six years. From the seventh year onwards, the Board should pay to the State Government at the rate of 10.5 per cent of the loan towards interest and repayment of the loan.

(v) The Board's requirements of capital for expansion of its distribution activities would be kept out of the Plan and should be met by open market borrowing for which the Board should make full amortization arrangements.