

HOUSE No. 1022.

Commonwealth of Massachusetts.

IN BOARD OF GAS AND ELECTRIC LIGHT COMMISSIONERS,
BOSTON, February 20, 1901.

To the House of Representatives:

We have the honor to acknowledge the receipt of the following order and to submit our reply thereto:

“*Ordered*, That the Board of Gas and Electric Light Commissioners be requested to report to the House of Representatives as soon as possible the cost of manufacturing and distributing electric light, and what in their opinion is a fair and reasonable price for consumers to pay for the same.”

The order as passed presents peculiar difficulties in the way of a clear and specific reply. As we understand it, it is general in its character, does not apply to any particular company or locality and requests a statement of the cost per kilowatt hour, the unit in common use.

There is necessarily a considerable variation in different companies under different conditions, in the cost of both manufacture and distribution, and there is no standard of cost in either of these departments which is applicable to companies generally.

The cost of generating varies materially according to whether water power or steam power is used. If the latter, the type of steam plant in use, the cost of fuel and an ample water supply, the relation of the ordinary to the maximum demand, and the comparative steadiness of the daily station load, are important factors affecting the generating cost.

Using the term distribution in its strictest sense, the variable factor of most importance affecting the cost is probably the relation of the volume of business to the area in which the electricity is supplied. If the term distribution be used in the wider sense to include all the cost outside of the station, such as management and taxes, the value of the business and the value of the plant, and the relation of these two to each other are important in determining the cost per unit.

When the fair and reasonable price to the consumer is to be determined, not only these variables applicable to the cost of production and distribution are to be considered, but the necessary charges for such depreciation as may not be provided otherwise, together with interest or dividends upon the investment. The last named is frequently of more importance than any of the others and may vary more than the others according to the relation of the volume of business to the investment.

From data in the latest annual returns it appears that the cost at the station or cost of manufacturing varied during the year ending June 30, 1900, in different companies from less than two to more than seven cents per kilowatt hour; the cost of distribution including management from one to nearly six cents, while the dividend cost varied yet more widely.

These facts indicate the difficulty of applying to companies generally any definite statement of costs and the necessity for a careful analysis of local conditions before attempting to determine the fair and reasonable cost per unit of these items in any particular company.

These suggestions will, we trust, explain our inability to reply to the inquiry as specifically as we would wish and as may have been expected when the order was passed.

Respectfully submitted,

FORREST E. BARKER,
MORRIS SCHAFF,
CHAS. H. GIFFORD.