

the sooner everyone realizes that such factors do exist, the sooner we may arrive at a solution of one of the most difficult problems which presents itself in the sale of electric power in small units.

A large hydro electric power station, financed under good market conditions, and protected against the hazard of intense competition, may be constructed in these days for about \$100 per horse power, where the natural conditions are favourable. Usually such a power station is located at considerable distance from its market, and transmission lines are required. Such transmission lines vary of course very much in cost, depending on the distance, the amount of power to be transmitted, the character of the line, etc., but it would be a fair estimate to assume that such a line can be constructed for, say, \$50 per h. p. This will deliver power from the hydraulic power stations to reasonably large communities at a capital cost of \$150 h. p. in the shape of high voltage power. This power must be stepped down, must be fed into a distribution system at perhaps 12,000 volts, must be again stepped down to 2,200 volts, and fed into the usual distribution system which supplies the individual customer.

The cost of this distribution system again is difficult to estimate, except in individual cases, but it might be stated that the 12,000 volt system will cost \$50 per h. p. with its transformers, switches, etc., and the low tension or 2,200 volt system with its transformers and low voltage conductors will cost anywhere from \$75 per h. p. up to \$150 per h. p.

Thus the total cost of delivering power from the hydro-electric power station to small consumers located in towns of from 2,000 to 3,000 inhabitants amounts to \$300, and sometimes considerably in excess of this figure.

It should be borne in mind that this represents the actual investment of money, and that if the