Meantime, while developing our resources, producing power, at least equal in price to Niagara power, and fostering the industries which are already in the province, the development of these fields will, in each and every one of its various steps, tend towards the ultimate grand programme of the development of this province.

This development also, owing to the fact that its transmission lines will run mostly north and south, will have a tendency to settle the country along the lines which are for the ultimate good of the province, in a way that will cheapen freight rates and shorten hauls, viz., from the south, northward.

In dealing with a power development scheme, when the towns to be supplied have already their own power houses, the greatest drawback is the enormous capital charges, which, in every case, have to be met and, of course, added to the cost of power, in order to determine the cost to the consumer.

The following figures are based on 1915 reports of the various cities mentioned and, as is the case in Saskatoon, the output for 1916 will, we hope, be larger than for 1915, thereby reducing these charges. For estimating purposes, however, we can only take reports for the period immediately preceding the estimate.

The capital charges, on this basis, would be as follows:—

City	Capital charged per K.W.H.
Saskatoon	1.31c.
Regina	1.60c.
Moose Jaw	1.93c.
North Battleford	1.99c.
Yorkton	4.34c.

Assuming that we are charged on the basis of maximum demand per month, I have arrived at what I consider the average maximum demand for a year, which will give us the cost for power per annum, bought in bulk. These figures are arrived at by assuming a maximum price of $8 per horse-power per annum at the switchboard, and the total cost works out, taking the 1915 output, as follows:—

Saskatoon	$26,800	.3523c.
Regina	26,800	.3640c.
Moose Jaw	13,400	.4200c.
North Battleford	4,824	.6030c.
Yorkton	1,608	.4541c.

The total capital expenditure on the transmission line, at $10,000 per mile per annum would be, approximately, $6,300,000, and as I have allowed $8 per horse-power year, we do not require to take into consideration any capital charges on power development, as this, of course, is included in the current rate. Assuming 10 per cent. overhead charges on line, which would include capital charges and maintenance of line, this would equal 3.26c. per kw.h. on the metered output of the above-mentioned cities, and would give us total charges as follows:—

	Saskatoon c.	Regina c.	MooseJaw c.	N. Battleford c.	Yorkton c.
Capital ...	1.31	1.6	1.93	1.99	4.34
Max. demand	.3523	.364	.42	.603	.4541
Line charges	3.26	3.26	3.26	3.26	3.26
Line losses .	.0352	.0364	.042	.0603	.0454
Distribution.	.15	.15	.2	.4	.6
	5.1075	5.4004	5.852	6.3133	8.6995

Against the above, the cost, if produced by the development of the lignite fields, would be as follows:—

	Saskatoon c.	Regina c.	MooseJaw c.	N. Battleford c.	Yorkton c.
Capital ...	1.31	1.6	1.93	1.99	4.34
Max. demand	.3523	.364	.42	.603	.4541
Line charges	1.627	1.627	1.627	1.627	1.627
Line losses .	.0352	.0364	.042	.0603	.0454
Distribution.	.15	.15	.2	.4	.6
	3.4745	3.7774	4.219	4.6803	7.0065

In this case I have assumed the cost of the transmission line to be $8,000 per mile owing to the fact of the very much shorter distance, and the proximity to railway facilities, as well as the fact that a lower transmission voltage would be economically possible, thereby reducing the cost.

The total cost per kw.h. metered at these various places last year was as follows:—

Saskatoon	3.51c.
Regina	3.31c.
Moose Jaw	4.72c.
North Battleford	.....
Yorkton	9.11c.

Now, even with these results, the proposition does not, on the face of it, seem to be a very profitable one for the cities. However, the transmission line will run through settled country, and a lower voltage will be possible, thereby enabling us to supply, cheaply, every municipality along the line of transmission. The railway companies, too, glad of an opportunity to cheapen the cost, especially in handling their peak load, which is during the grain rush, by electrifying their systems, would create a demand which would still further reduce the cost per kilowatt-hour.

I would advocate that in all districts adjoining the main transmission line, every municipality be approached, and an agreement made with them, whereby they would take a certain block of power to be distributed among the farmers.

Now, the question of the farmer taking power is no small one, and while in this country we are not accustomed to associating the farmer with the consumption of electricity, yet, that this is a fact is shown wherever the transmission line runs through a farming district, as, for instance, in Ontario, Colorado, Ohio, and numerous other sections of the United States, but these few will suffice as examples.

I think that in view of the many uses and labor-saving devices to which electricity can be applied, a small estimate of the amount of power which each farmer would require would be about 10 h.p. This, coming off the line at, say, every second municipality, a distance of about 15 or 20 miles, would materially lighten the overhead cost on the transmission system, and assuming that this load even lightened the capital charges to the extent of 50 per cent., would give figures as follows:—

Saskatoon	2.6610c.
Regina	2.9639c.
Moose Jaw	3.4055c.
North Battleford	3.8668c.
Yorkton	6.253c.

Besides this reduction, and the greater assurance of continuity of service made possible by the shorter transmission line, the cities which have steam plants at present in operation would be in a position to develop a system of steam heating from the central station, which would again materially lessen the capital charges per kw. hour without affecting the stand-by value. The aforementioned possible railway traction load, also, would be quite a factor in reducing the cost per unit.