LOCAL ELECTRIC-POWER-SUPPLY SYSTEMS.

Outside the Power Boards the existing local supply authorities are showing great activity, but owing to the war disturbances they have not yet been able to make up the arrears in the normal expansion of their installations. In the seven principal cities and boroughs proposals are under consideration involving the installation of new plant to a capacity of 33,500 kilowatts at an estimated cost of £1,582,000, as follows :—

Authority.	Power.	Present Power.	Proposed Addition.	Estimated Cost.
		Kw.	Kw.	£
Auckland City	Steam ..	13,000	13,000	500,000
Wellington City	,, ..	7,500	6,000	386,000
Dunedin City	Water ..	6,000	6,000	200,000
Wanganui Borough	Steam ..	375	1,500	84,000
Palmerston North Borough	Gas	Nil	1,000	127,000
New Plymouth Borough	Water ..	850	5,000	235,000
Invercargill Borough	Steam ..	975	1,000	50,000
Total	..	..	..	1,582,000

In each case provision is being made that the proposed plant shall work in with the main Government hydro-electric-power-supply system.

During the year one additional steam-power plant has been put into service (Waiuku Town Board), and four additional local authorities have undertaken the reticulation of energy purchased in bulk from the Government viz., Eyre County Council, Halswell County Council, Rangiora County Council, and Rangiora Borough Council. The total number of local supply authorities in the Dominion is now seventy-one, details of which are given in the tables herewith.

The demand for increased power-supply has been very insistent owing to the increasing cost of fuel and labour, but the difficulty in obtaining plant has delayed the extensions required. The only station that has succeeded in increasing its capacity substantially during the year is the Auckland City Council, for which orders were placed in 1914.

At the end of the financial year the capacities of the supply stations, analysed according to the sources of power, were as follow :—

	Number.	Capacity. Kilowatts.	Proportion per Cent.
Water-power	26	23,998	52·4
Steam	9	16,122	35·2
Gas-engines	17	3,209	7·0
Oil-engines	3	2,476	5·4
Bulk supply	16	(No generating plant.)	
Totals	71	45,805	100·0

The sum of the maxima outputs of the whole fifty-five power plants for the year was only 30,736 kw. out of the total capacity of 45,805 kw., leaving a margin of 15,069 kw., or 33 per cent., as standby plant—a margin which can be very much reduced when the whole of the stations are interconnected, so that each will serve as standby for its neighbours.

With regard to the authorities operating the various installations, they are as follows :—

	Number.	Capacity. Kilowatts.	Proportion. per Cent.
Government Departments	3	15,000	32·7
City Councils	4	18,300	40·0
Borough Councils	39	7,905	17·2
Town Boards	10	529	1·2
County Councils	5	(Bulk)	..
Electric-supply companies	9	2,071	4·5
Industrial companies	1	2,000	4·4
Totals	71	45,805	100·0

The increase during the year in the proportion operated by the Government from 19·8 to 32·7 per cent. is due to the purchase of the Horahora power plant.

The total number of consumers at the end of the year was 58,449, as compared with 54,926 last year, an increase of 3,523 consumers, or 6·4 per cent. These are distributed as follows :—

	Number of Consumers.	Proportion.
3 Government Departments	1,228	2·1
4 City Councils	30,452	52·3
39 Borough Councils	19,511	33·4
10 Town Boards	1,412	2·4
5 County Councils	1,990	3·3
10 Electric-supply companies	3,856	6·5
71 Totals	58,449	100·0