

The public-utility companies operating in central Java have standardized on the following voltages for transmission work:

A. N. I. E. M., for high tension: 30,000 (volts), 6,000, 3,000. For low tension: 440 (volts), 380/220, 220/127, 190/110, 220/110.

Solosche Electriciteit Mij. (S. E. M.), for high tension: 15,000 (volts), 6,000, 6,000. For low tension: 220/127 (volts), 220/127.

Electriciteit Mij. Banjoemas (E. M. B.).

East Java.—In east Java, a 70,000-volt system transmits the energy developed in the hydroelectric station at Mendalan to Surabaya through the Modjokerto substation. The Mendalan-Modjokerto-Surabaya line is a 6-cable system approximately 85 kilometers in length, the total length of aluminum cables installed being 510 kilometers.

This system is owned and operated by the N. I. W. E. M. and will eventually be developed into a complete circuit embracing the central station at Mendalan, substations at Modjokerto, Surabaya, Bangil, and Blimbing, the steam power station at Semampir, and the Diesel power stations at Pasoeroean and Malang. When completed the entire length of the 70,000-volt lines will be about 170 kilometers, and if six cables are used throughout, the total length of installed cables will be 1,020 kilometers.

Aside from the system mentioned above, there are no other transmission systems of importance in this part of Java.

The only two public-utility companies operating in east Java are the A. N. I. E. M. and the Besoekische Electriciteit Mij. (B. E. M.). The standardized voltages of the former are the same in this section as in central Java, while the standard voltages of the latter company are 3,000 volts for high-tension work and the usual 220/127 for low-tension work.

Outer Possessions.—High-tension transmission lines in the Outer Possessions are confined to Sumatra and Banka and are all Government owned. The most important distribution system outside of Java is the system around the island of Banka, which supplies the Government tin mines with power. The Banka system transmits current at 30,000 volts for a distance of about 60 kilometers. Three and six copper cables are used; the total length of the high-tension cable employed is 530 kilometers.

In Sumatra the chief transmission systems are the Teis-Moeara Aman-Tambangawah system and the Tandjoengenim-Lahat system, both in south Sumatra. The former is a 25,000-volt 3-copper-cable system with a total cable length of about 160 kilometers over two 27-kilometer lines, while the latter is a 30,000-volt 6-cable system using a total of 95 kilometers of aluminium cable over 16 kilometers of line.

Extensions to both of the systems were under way during 1929.

TRANSMISSION AND DISTRIBUTION EQUIPMENT

As most of the extension of transmission lines has been carried on by the Netherland East Indies Government during the last few years, the major portion of this business has been obtained by Dutch firms. But the Bureau of Water Power and Electricity at Bandoeng, which is in charge of this work, has adopted an open-minded policy, and experiments have been conducted with the products of leading manufacturers of this type of equipment. German manufacturers