

As will be noted, the principal public-utility steam-power stations are located in the most important cities, and Medan, Palembang, and Makassar depend solely on the steam stations of the N. I. G. M. for light and power, while the N. I. G. M. and A. N. I. E. M. supply Batavia and Surabaya partially from steam plants.

The Government stations at Taajeh, Tandjoeng, and Poeloe Laoet are used to supply the Government coal mines located at these places, and the plant at Mantoeng supplies power to the Government tin mines on the island of Banka. The Bataafsche Petroleum Maatschappij's (B. P. M.) stations at Tjepoe and Balikpapan are used to supply light and power to the company's oil fields, while the Steenkolen Mij. Parappattan also supplies power for its own coal mines at Beraoe.

USE OF DIESEL POWER

As explained in the previous section, very little use is made of Diesel power for the generation of electricity by the Government. Diesel engines are used chiefly by the public-utility companies, which supply light and power to small towns and villages, and by private companies for similar purposes on estates or in factories. The majority of Diesel installations are designed to operate plants with a capacity of 100 to 500 kilowatts. Approximately 30 of the small central stations of the public-utility companies are operated by Diesel engines, the total installed capacity of these plants amounting to over 16,000 kilowatts.

The most important private Diesel installation in the islands is at Manggar on the island of Billiton and is owned by the Billiton Tin Co. The Manggar plant, which has a total installed capacity of 8,700 kilowatts, is claimed to be one of the largest Diesel plants in the Orient.

CURRENT CHARACTERISTICS

The power generated in the power stations of the Netherland East Indies has, since 1923, been standardized at voltages which have been in effect throughout the islands, the usual system for transmission and distribution being 3-phase alternating current at 50 cycles per second. The principal voltages used for transmission are 25,000/30,000 volts and 70,000 volts. For generation and primary distribution, 6,000 volts are used while for secondary distribution (4-wire system), 127/220 and 110/190 volts are used. Direct current is used only in small private plants and by the electric traction companies.

Standardized voltages for 3-phase alternating current are 127, 220, and 380 volts for lighting and small-power installations and 3,000 and 6,000 volts for large-power installations. Secondary standards are 110, 190, 500, 3,000, 15,000, and 25,000 volts. Standard voltages for direct current are 110, 220, and 600 volts, and the secondary standard for power is 440 volts.

RATES CHARGED FOR CURRENT

Electric current costs are not uniform in the Netherland East Indies, being somewhat higher in the districts where current has just become available than in the districts where the public-utility companies have been established for some time. Electricity for lighting purposes sells for approximately \$0.20 (United States currency) per kilowatt-hour in east Java and the Outer Possessions and for \$0.16