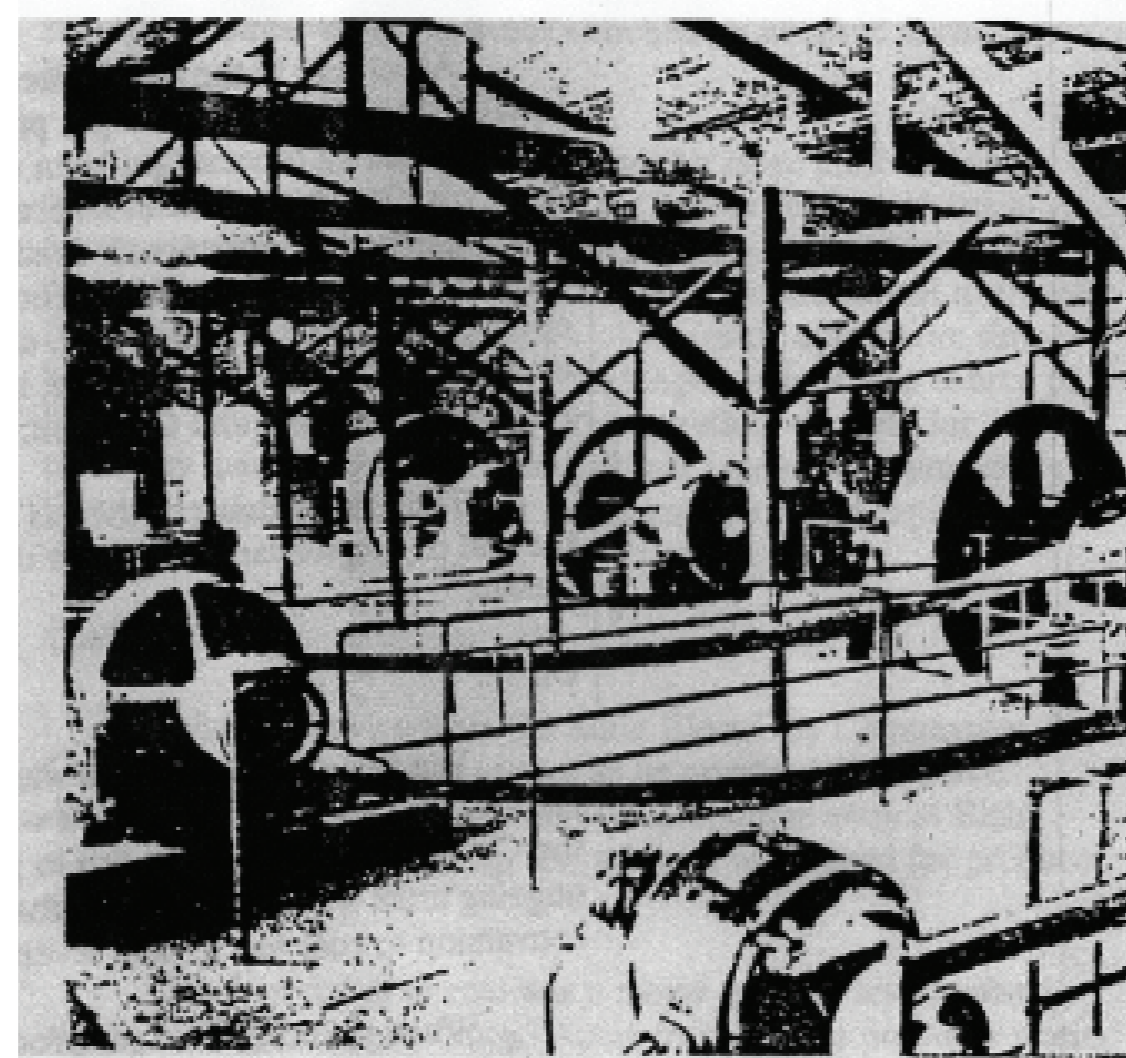


Powering the West

The Coming of Electric Light

In 1921 the Longreach Shire Council built a power house on this site to supply electricity to the residents of Longreach. The original plant consisted of two Ruston and Hornsby gas engines, fuelled by two charcoal gas producers, each driving a direct current generator by a flat belt. The generators had a combined output of 134 kW. The cost of the building, generating plant and gas producers was £21,000 (\$42,000). When electricity was switched on in December 1921 it was by far the most expensive project ever undertaken by the Council. None of the original plant has survived.



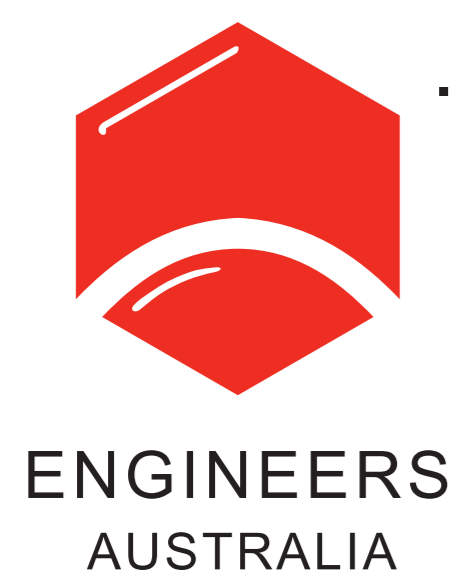
Interior of Longreach power house showing the Ruston and Hornsby engines and belt driven generators (Longreach Leader, 3 December 1932)

Larger, more efficient generators were installed progressively. Of the plant on display, the first installed in Longreach in 1948, is a 280 hp (209 kW) National diesel engine. Subsequent additions include a 500 hp (373 kW) National dual-fuel engine in 1957 and 933 hp (696 kW) Crossley-Premier gas engines in 1960, 1964 and 1966. Each Crossley-Premier weighs 100 tonnes. The 11 tonne, 3 m diameter flywheel turned at 214 rpm and each engine was capable of generating 650 kW. The last installed, in 1973 (after service in eastern centres since 1946) is a 535 hp (399 kW) English Electric diesel.

Electricity Expands in the Central West

In 1966, after 45 years of operation by the Longreach Shire Council, the power station came under the control of the Central Western Regional Electricity Board. This new Board had responsibility for the supply of electricity in the Shires of Longreach, Barcaldine, Blackall, Tambo, Jericho, Aramac, Ilfracombe and Isisford, covering an area of 120,700 sq. km. Engineer Mr R.W. (Rol) Oxenham was appointed Manager of the Board with Mr A.A. (Allen) Travers as Secretary.

Improved reliability of supply, reduced electricity tariffs and introduction of a rural electricity

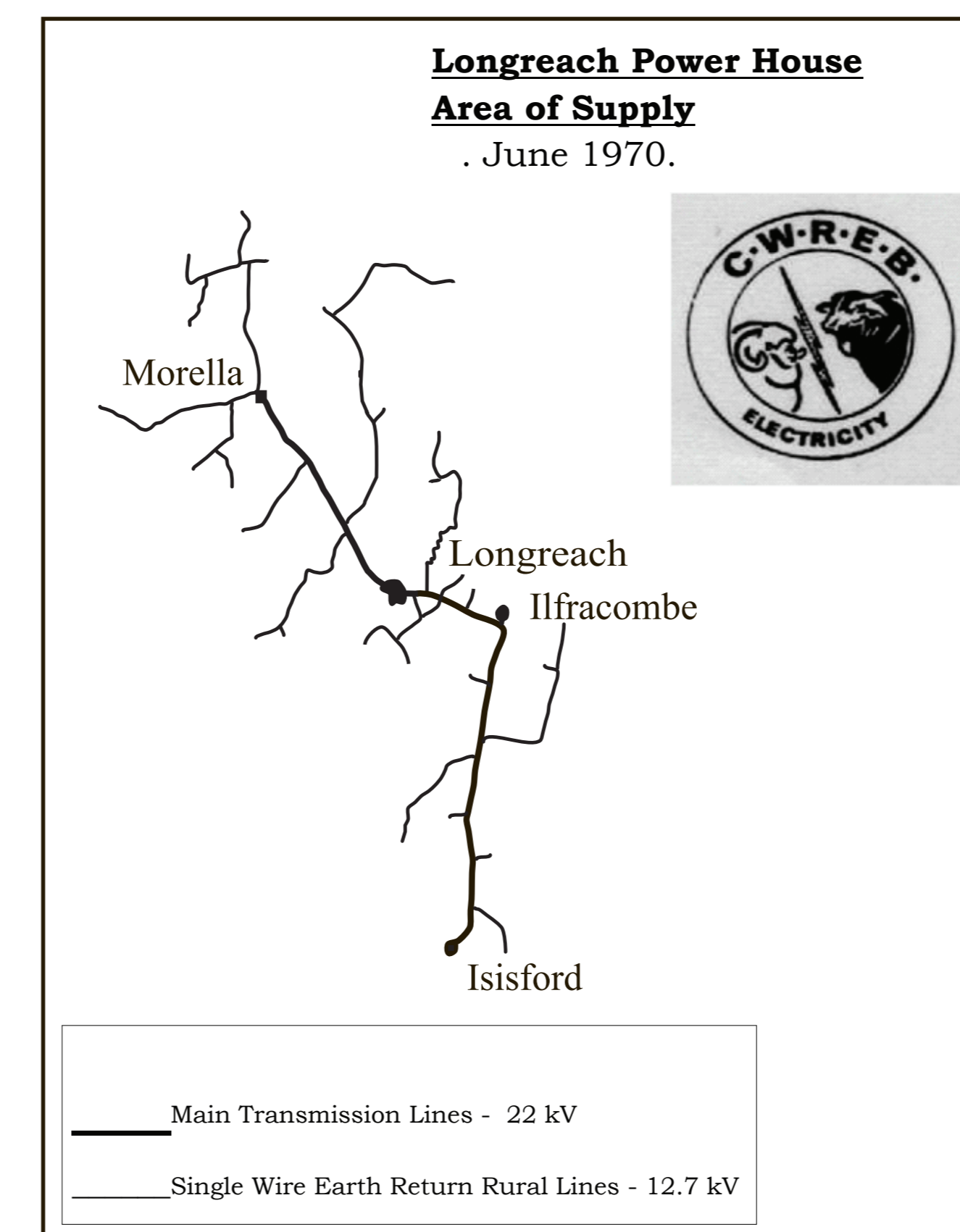


scheme were objectives of the Board. Diesel generating plant was installed in 1968, 1970 and 1971. Each of these machines had an output of 750 kW, giving Longreach an installed capacity in 1971 of 2550 kW, enabling the power house to meet its maximum demand of 1870 kW, and to retire the gas plant. The objective of the Board to reduce generating costs was achieved by the efficient operation of the plant and the introduction of scheduled maintenance. A 1970 report indicated that the cost of production was 45% lower than the costs three years previously.

The power house ownership transferred to the Capricornia Electricity Board in 1977 following a re-organisation of the electricity industry. Generation continued in Longreach supplying electric power to Longreach and three other western Queensland



Coal Fired Gas Producers Nos 1 & 2 - 1952



communities, Ilfracombe, Isisford and Morella until the connection in 1985 to the State electricity grid. The maximum available capacity at the time was 2949 kW.

The Gas Producers

When firewood to make charcoal for the original 1921 gas producers became scarce, alternative sources of fuel were investigated. In 1951, two coal-fired gas producers were installed at a cost of £10,000 (\$20,000) each, and the coal was supplied from the Blair Athol colliery, 500 km from Longreach. These gas producers were designed specifically for supplying gas to engines generating electricity. The success in Longreach of these Australian designed and built coal-fired gas producers led to their use at Barcaldine, Blackall and

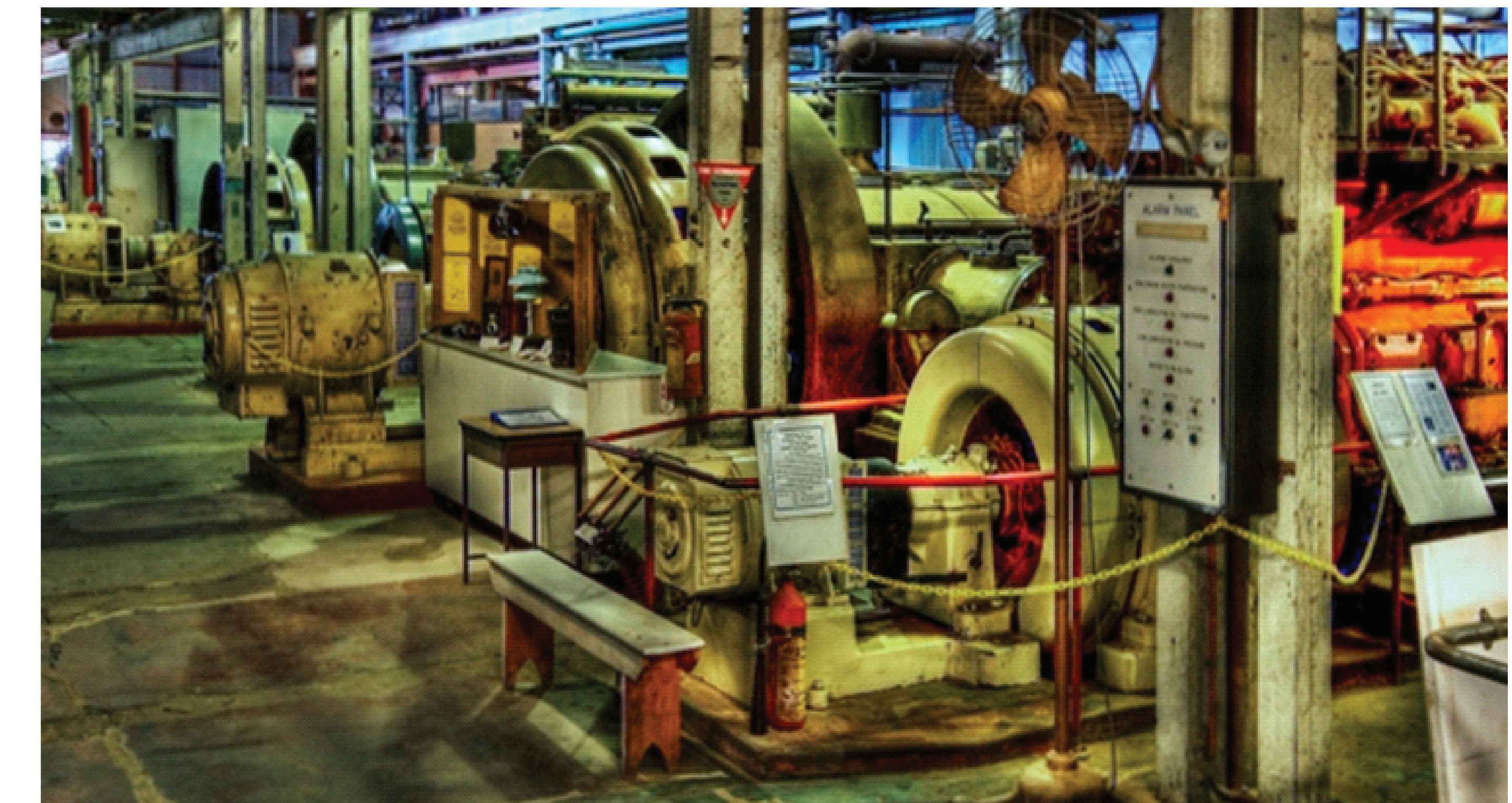
Clermont power stations.

Development and supervision of installation of the gas plant was carried out by engineers of the State Electricity Commission of Queensland, H. (Herbert) Horton (Chief Mechanical Engineer), A. (Alf) West (Senior Mechanical Engineer) and P.G.B. (George) Matthews (Power House Engineer/Manager).

The Crossley-Premier 933 hp Engine driving a 650 kW generator installed in 1960, fuelled by the coal-fired producers gas, was reported at the time to be the largest generation combination of its type in Australia.

Museum Foresight

The then Longreach Shire Council, led by Chairman Sir James Walker, purchased the power house in 1989 as the plant was about to be scrapped. The Council decided to create a local history museum, and the first stage opened in 1994. It is significant in that it is the sole remaining power house of this type in Queensland and is still largely in the condition in which it operated when decommissioned in 1985. It represents a milestone in engineering development of electric power supply to the Australian outback.



Longreach Power House Museum



www.engineersaustralia.org.au/heritageregister/search