

Fort George Power Station



Built 1997
for



Central Electricity Board

Mauritius
by





Fort George 2-Stroke Power Plant Central Electricity Board

The Central Electricity Board (CEB) is a parastatal organization, which was instituted by the Government in 1951. In order to establish a single control for the supply of electricity CEB purchased that assets of the General Electric Supply Co., and since 1 July, 1956, CEB has been legally responsible for the control and development of the supply of electrical power in Mauritius.



Burmeister & Wain Scandinavian Contractor A/S (BWSC) was founded in 1980 with the aim of designing and constructing reliable electricity generation at the lowest feasible cost in terms of capital investment and running expenses.

History

The cooperation between CEB and BWSC goes back to 1994 where negotiations for an extension of the Fort George Power Station commenced with a turn-

key contract for the extension being signed 1 March, 1995.

Fort George Power Station

Already in the early fifties CEB had selected a site for a thermal (diesel) power station at the Fort George Road, close to the sea to obtain efficient cooling.

Initially the idea with this site was abandoned but was taken up again. Unit 1 of phase 1 of Fort George Power Station was commissioned in December 1992 and unit 2 was commissioned in January 1993, both units with a capacity of 23.5 MW each.

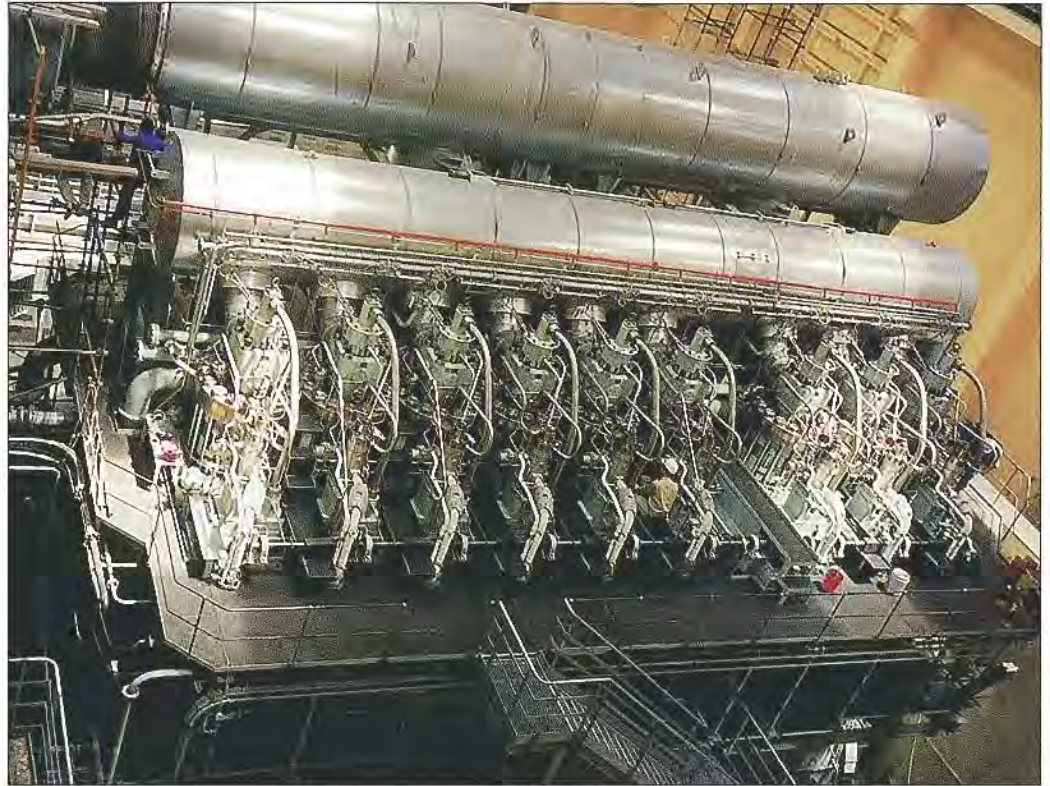
Fort George Power Station Extension

The execution of the turnkey contract was undertaken by a consortium comprising Mitsui Engineering & Shipbuilding Co., Ltd. (MES) and Burmeister & Wain Scandinavian Contractor A/S (BWSC) with BWSC as Consortium Leader.

Civil Work

The Civil work design was carried out by F.B. Engineering, Gothenburg, Sweden, and main civil work contractor was N.V.Besix S.A., Brussel, Belgium, with S.I.F. Bachy as subcontractor for micro pile work.

The scope of civil work covers a "power house" with a Generation Hall with foundations for 3 diesel engine/alternator sets, a Mechanical Annex prepared for auxiliaries for 3 units and an Electrical Annex, also prepared for 3 units, a Heavy Fuel Oil (HFO) tank farm with 3 each 6,500 cubic meters capacity and with a pump house for 2 each 100 cubic meters/hour capacity a lubricating oil tank farm with 1 tank with 100 cubic meters capacity and 2 tanks each with 40 cubic meters capacity (one for dirty oil), a "fire house" for 2 pumps each with the capacity and 250 cubic meters/hour, a water tank with the capacity of 630 cubic meters, an incinerator building, an oil storage building (drums), a 630 square meters warehouse with laboratory and personnel facilities and roads and facilities. The generation hall is



equipped with an overhead crane having a main hook capacity of 140 t and 2 auxiliary hooks each with a capacity of 10 t.

The smoke stack (chimney) is installed on the roof of the Mechanical Annex with the top of the chimney 65 m above ground level.

Mechanical and Electrical Work

The scope covered delivery and installation of Unit No. 3 with all associated auxiliary equipment, including piping for tank farm, fire fighting and incinerator.

Unit No. 3 was commissioned on 31 January, 1997.

The diesel Engine

Designed by MAN B&W Diesel A/S and manufactured by Mitsui Engineering & Shipbuilding Co., Ltd. with following main data:

| | |
|------------------|-----------------------|
| Mitsui/MAN B&W | 9K80MC-S |
| No. of cylinders | 9 |
| Bore/stroke | 800/2, 300 mm |
| MCR rating/Speed | 30,510 kw / 103,3 RPM |

The Alternator

Designed and manufactured by G.E.C. Alstom with the following main data:

| | |
|-------------------|----------------------|
| GEC Alstom | Frame size RF 950-82 |
| Rated power (IEC) | 37,286 kVA |
| Power factor | 0,8 |
| Rated voltage | 11,000 V |
| No. of poles | 58 |

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