



## 1.0 GENERAL PLANT DESCRIPTION

The quoted Cogeneration Plant is based on type GT10 Gas Turbine and a Heat Recovery Steam Generator to supply power and steam for

The Cogeneration Plant will be complete with necessary control system for the Cogeneration Plant and electricals to supply power for Cogeneration plant auxiliaries.

The plant is designed according to the latest and reliable design criteria using modern technology to achieve a high efficiency and availability of the Cogen Plant. The Plant is designed to use Naphtha as the main fuel in the Gas Turbine.

The main features of the Plant are described hereafter.

### 1.1.0 GAS TURBINE UNIT

The proposed GT10 is a heavy duty gas turbine designed and developed to incorporate size and weight advantages of the aircraft derivative gas turbine while at the same time maintaining the robustness, flexibility and long life advantages of the traditional industrial gas turbine. The unit combines series of well tried and proven materials, components and design principles to form one of the most modern and fuel efficient unit of its type.

A vertical air intake duct directs the flow of air into the compressor inlet manifold. The air is cleaned by means of a filter with automatic cleaning of the filter elements during operation. Damping of noise emission is performed by silencers which are installed on intake side between the filter and compressor inlet

The gas generator section consists of a ten stage axial compressor which is built up from a number of fully electron beam welded discs and onto which the intermediate shaft is also welded.

While compressor section is of conventional horizontally split design, the remainder of the unit makes use of vertically split, single piece, circular