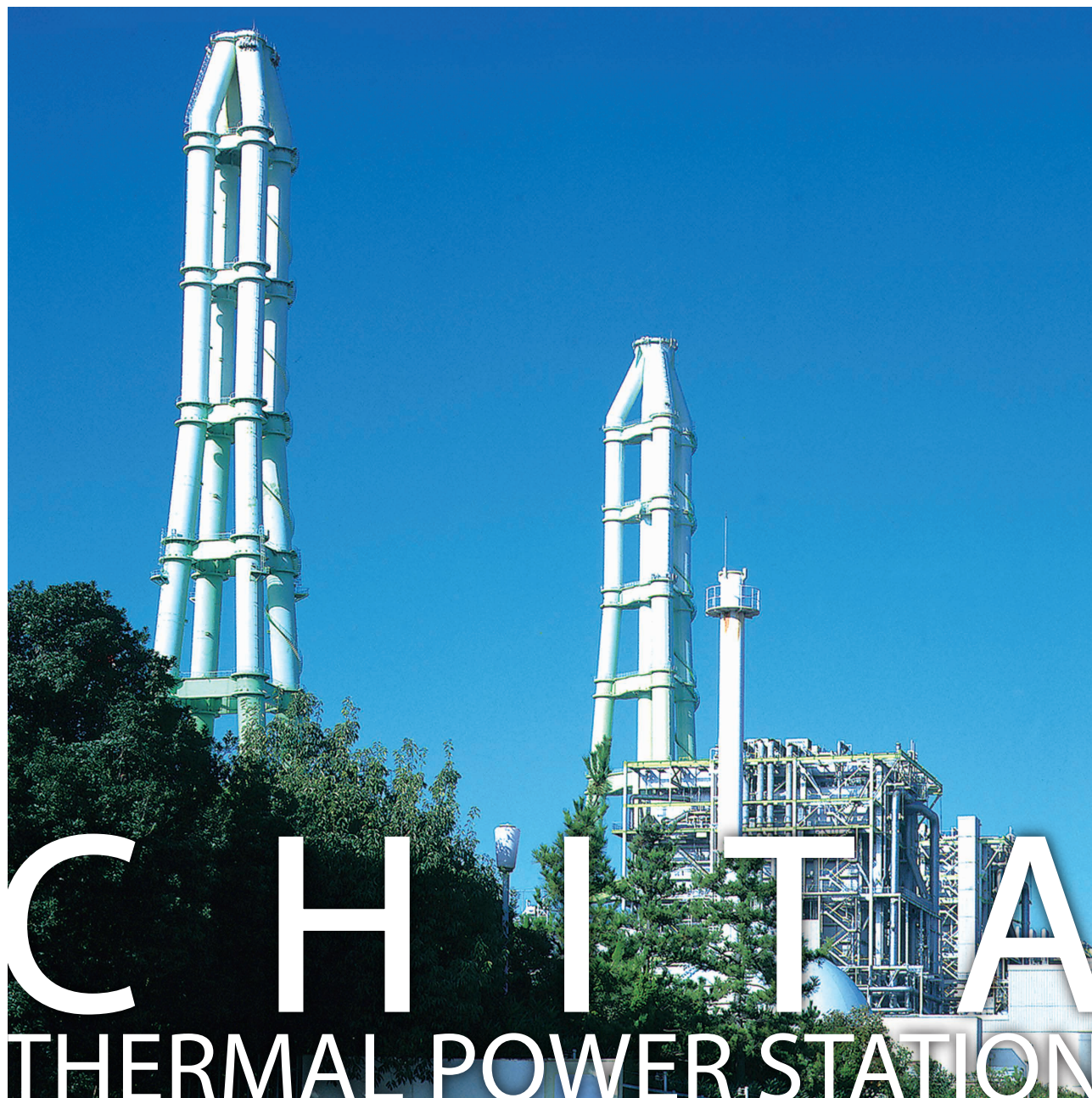


Jera



CHITA

THERMAL POWER STATION

WELCOME TO CHITA THERMAL POWER STATION!

Japan's large-capacity thermal power station

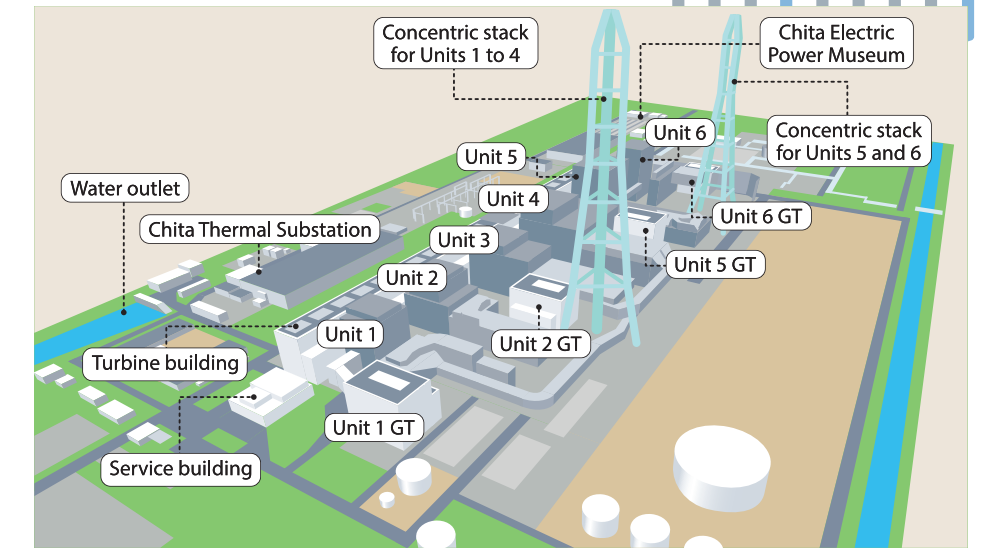
with a total output of 3,960MW

The Chita Thermal Power Station is located at a part of the industrial region on the reclaimed land in the northern part of Chita Peninsula.

Since Unit 1 went into commercial operation in 1966, the power station has provided a stable supply of electricity to the coastal industrial zone with its many companies including steelmakers, shipbuilders, mills, and oil refineries, as well as to the Chubu and other areas, for more than 50 years. Today, all the units from Unit 1 to Unit 6 are fueled by LNG which is a clean energy source. Units 1, 2, 5, and 6 also have an exhaust gas re-firing combined-cycle gas turbine generator. With the total output of 3,960 MW, this is one of the largest thermal power stations in Japan. The station also operates an LNG terminal jointly with Toho Gas Co., Ltd. to manage LNG efficiently and stably.



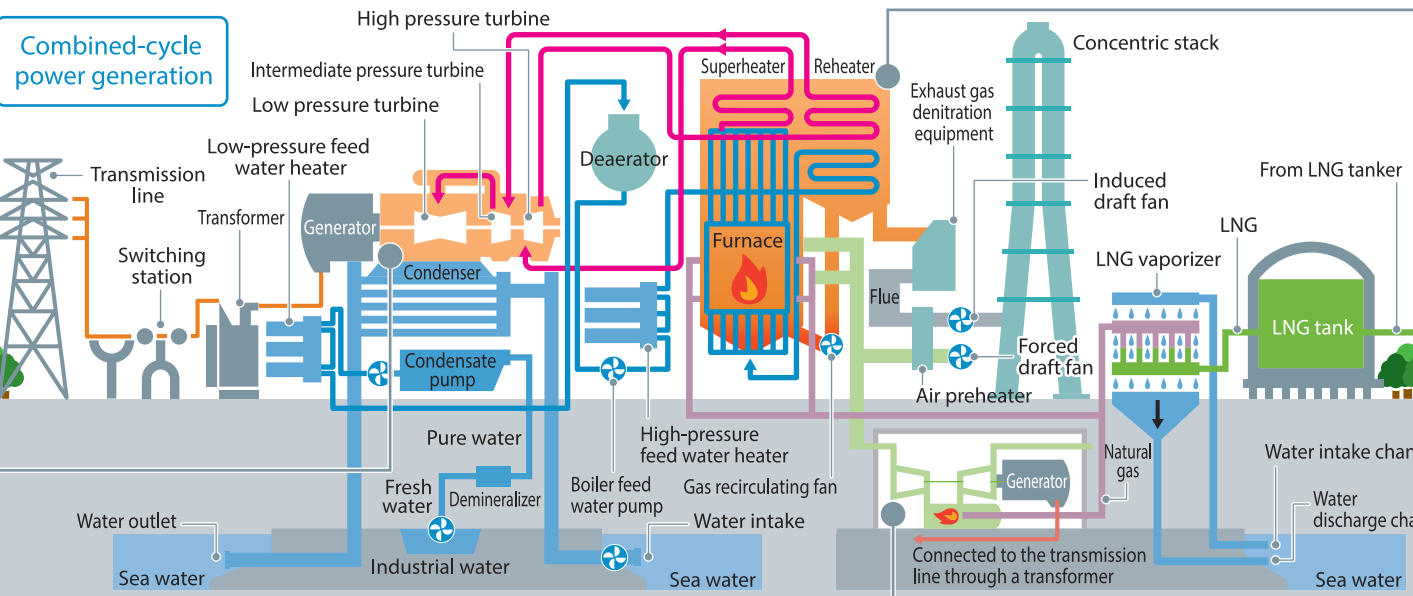
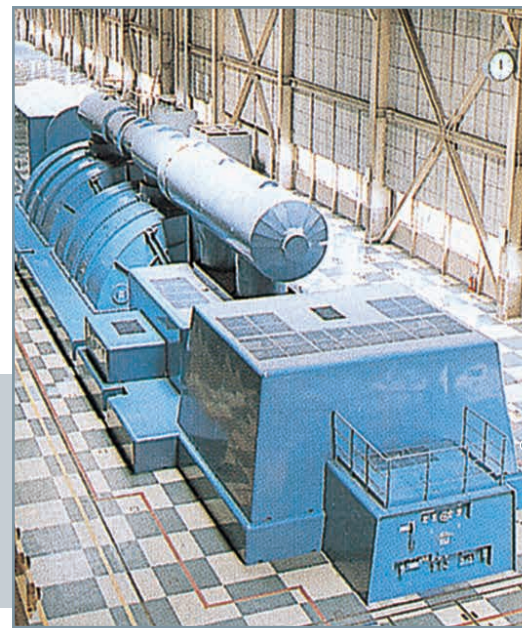
Overall layout of the power station



Outline of facilities

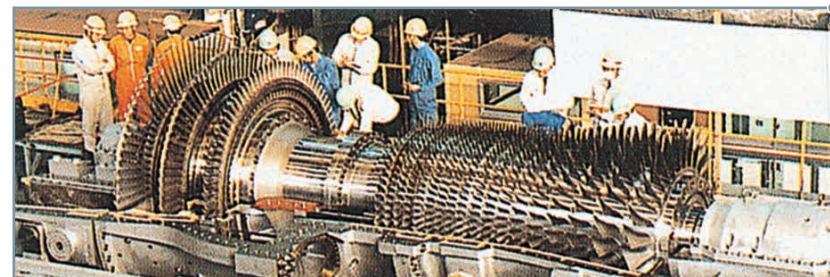
Unit No.	Output (MW)	Fuel	COD	GT combustion temperature (°C)	Power generation type
Unit 1	375	LNG	February 1966	—	Combined cycle (repowering)
1GT	154		August 1996	1,300	
Unit 2	375		January 1967	—	Steam
2GT	154		August 1995	1,300	
Unit 3	500		March 1968	—	Combined cycle (repowering)
Unit 4	700		March 1974	—	
Unit 5	700	March 1978	—	Combined cycle (repowering)	
5GT	154	June 1995	1,300		
Unit 6	700	April 1978	—	Combined cycle (repowering)	
6GT	154	September 1994	1,300		

Name: Chita Thermal Power Station Location: Chita City, Aichi Prefecture Site area: Approximately 560,000 m²



Turbine (steam) generator

The high-temperature, high-pressure steam generated by the boiler drives a turbine. A generator directly connected to this turbine operates at high speed (3,600 rpm) to generate electricity: 375 MW for Units 1 and 2, 500 MW for Unit 3, and 700 MW for Units 4 to 6.



Gas turbine

The gas produced by the combustion of LNG (1,300°C, 1.47 MPa) drives a turbine. A generator directly connected to this turbine operates at 3,600 rpm to generate electricity of 154 MW.



Boiler (LNG-fueled)

LNG sent from the storage facility is burned in a boiler. The temperature in the boiler reaches approximately 1,300°C, and this heat is used to turn the boiler water into high-temperature, high-pressure steam, which is then sent to a turbine.

Environmental Initiatives

Preventing air pollution

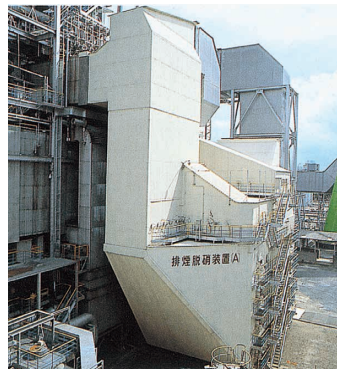
The power station is fueled with LNG and therefore does not discharge the sulfur oxides which are the cause of particulate matter and acid rain. The use of low-NOx burners and exhaust gas denitration equipment has also reduced the discharge of nitrogen oxides. The white smoke rising from the plant stacks on cool days is steam.

Keeping the oceans clean

The equipment cleaning water and general waste water generated at the power station undergoes pre-processing such as oil separation and neutralization. It is then purified by means of condensation, sedimentation, filtration and neutralization, and the water quality is checked before it is discharged.

Protecting the global environment

Since power stations make use of the earth's enriched resources, it is important to achieve high level of thermal efficiency when generating electricity due to preservation of the global environment. In addition, greater generating efficiency means that less carbon dioxide, which causes global warming, is produced. We are committed to conserve the earth's finite resources and curb global warming by leveraging the technical capabilities we have accumulated over the years and by introducing highly efficient power generating equipment.



Installation of NOx reduction systems

To reduce nitrogen oxides in the exhaust gas we have implemented a various of NOx reduction systems such as exhaust gas denitration equipment.



Greening

Trees are planted on approximately a quarter of the site area, and a green belt on the side facing the residential area harmonizes with nature and helps conserve the environment. There is a pond inhabited by ricefish (medaka) next to the Electric Power Museum. A nature observation zone on the site area was designed to be like the walkway in Oze National Park.



LNG storage tanks

LNG is transported from Indonesia, Australia, and other countries, and is stored at the receiving terminal constructed jointly with Toho Gas Co., Ltd. and at the Chita terminal of Chita LNG Co., Ltd. LNG is gasified at these terminals, which are located 3 km south of the station, and then sent to the station through a gas pipeline.



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