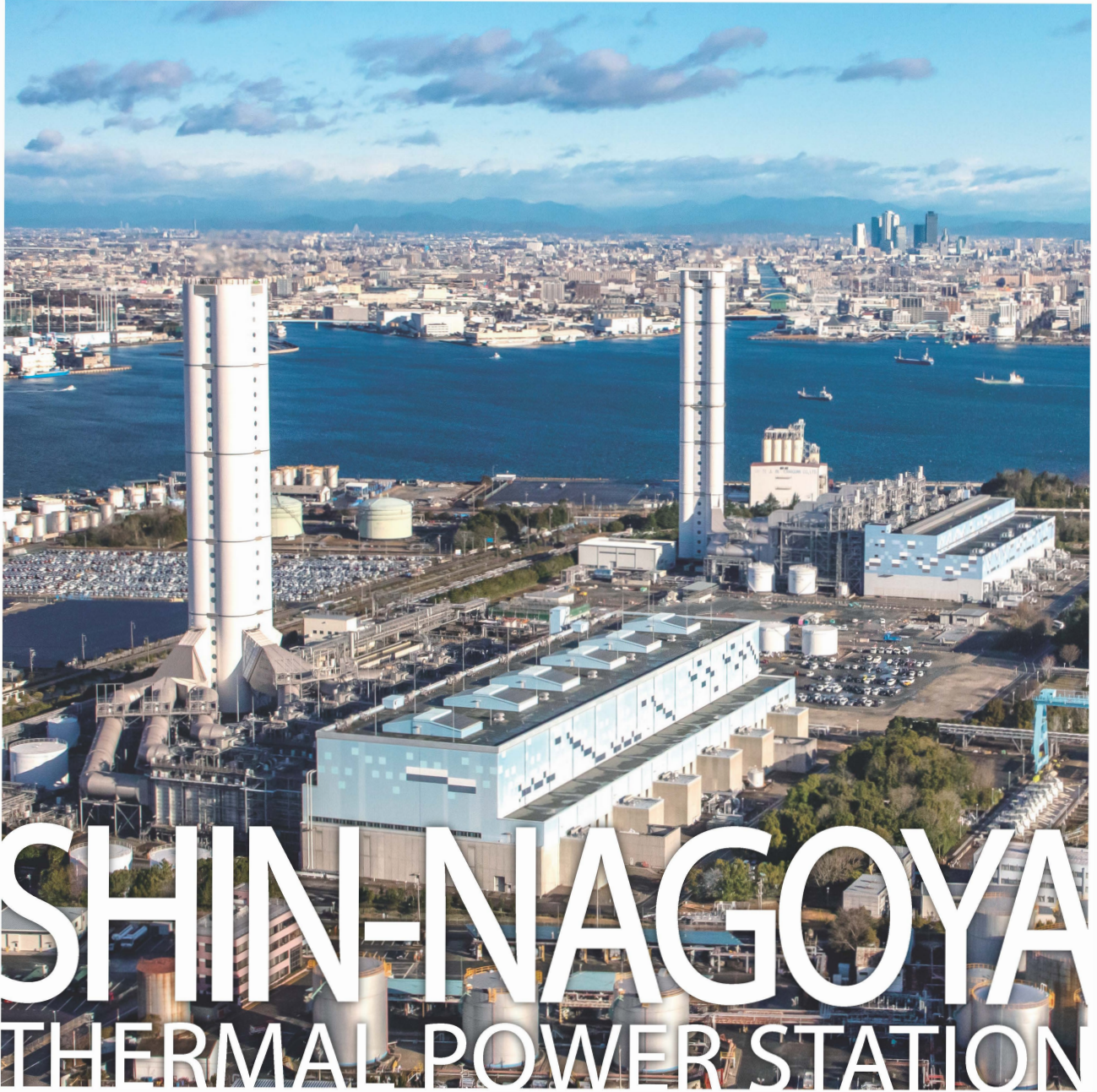


Jera

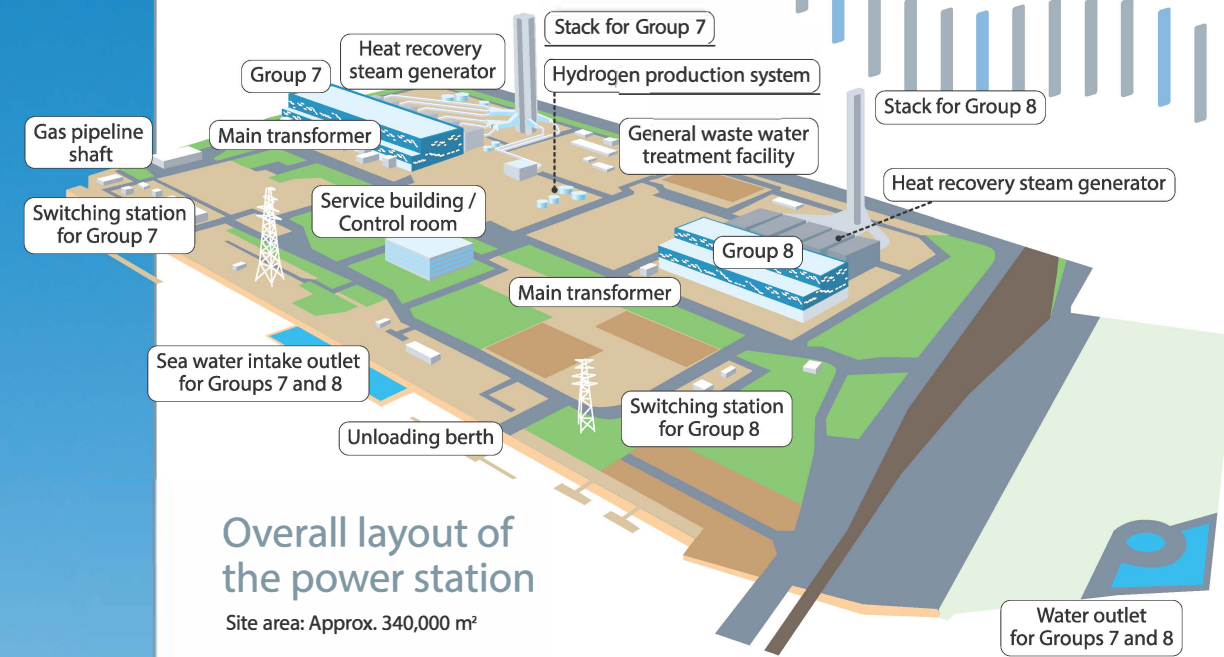


SHIN-NAGOYA THERMAL POWER STATION

The only thermal power station within the city of Nagoya, which has used coal, oil, and now LNG as fuel over its more than 60-year history

The only thermal power station in Nagoya City

Located in the Shiomi Wharf area of the Port of Nagoya, the Shin-Nagoya Thermal Power Station is the only thermal power station in Nagoya City. This urban power station was designed to blend in seamlessly with the city around it, with stacks resembling skyscrapers and buildings with a sleek, modern style. The power station began operation in 1959 as a coal-fired thermal power plant, and was later converted to burn oil. Then, in 1998, it underwent a major transformation and was relaunched as a cutting-edge thermal power station fueled by the clean energy of LNG. The current facilities use highly efficient combined-cycle systems consisting of both gas turbines and steam turbines. Shin-Nagoya Thermal Power Station plays a key role in ensuring a stable supply of energy in the Chubu region and elsewhere, while also helping to conserve energy resources and reduce environmental impact.



Overview of facilities

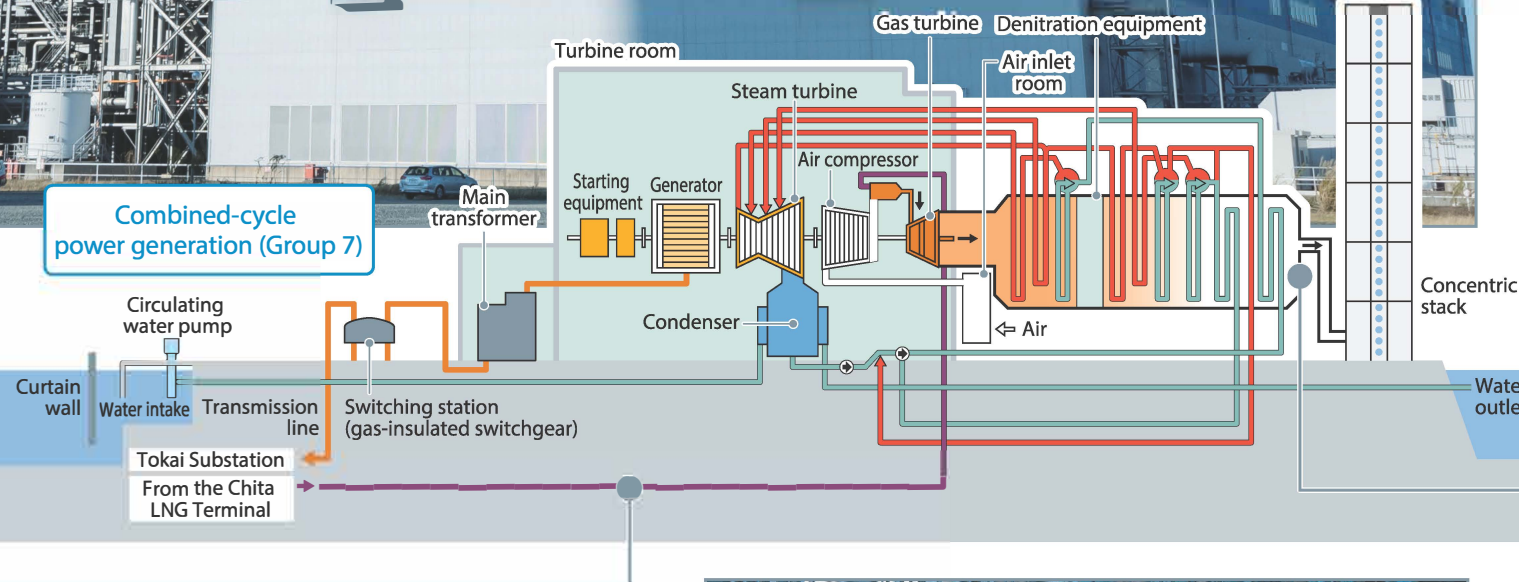
Unit	Output (MW)	Fuel	Start of operation	GT *combustion temperature (°C)	Power generation type
Group 7	7-1	LNG	August 1998	1,300	Combined cycle
	7-2		October 1998		
	7-3		November 1998		
	7-4		November 1998		
	7-5		December 1998		
	7-6		December 1998		
Group 8	8-1	LNG	October 2008	1,500	Combined cycle
	8-2		July 2008		
	8-3		June 2008		
	8-4		April 2008		

*GT: Gas turbine

Learn more!

A musically inspired design

Construction on Group 7 started in 1991, which marked 200 years since the death of Wolfgang Amadeus Mozart. To commemorate the late composer, the exterior design resembles music notes—specifically, the score for Mozart's Symphony No. 40 in G minor.



Gas pipelines

An approximately 17 km-long gas pipeline transports fuel to the power station from Chita LNG Terminal in nearby Chita City.

Turbines and generators

The driving force of gas turbines is combined with that of steam turbines to generate electricity with high thermal efficiency. The steel frames inside the turbine room are painted in six shades of blue to create a bright and refreshing work environment in line with the overall design concept for this urban power station.



Heat recovery steam generators

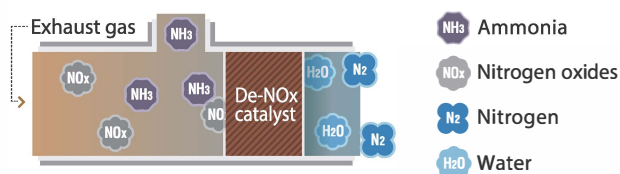
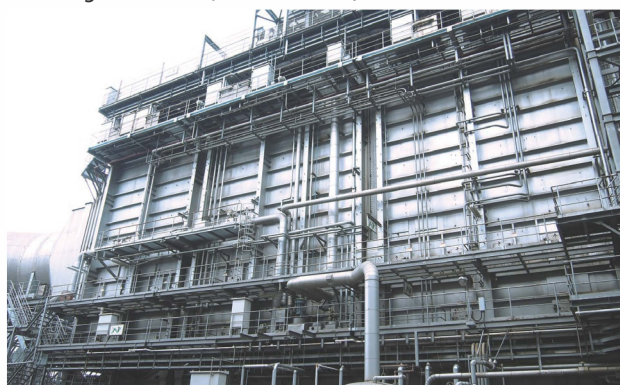
Heat recovery steam generators play a key role in a combined-cycle system, using the exhaust gas from the gas turbines to generate steam used to drive the steam turbines.

Environmental initiatives

Preventing air pollution

The power station is fueled with LNG and therefore does not discharge sulfur oxides (SOx), which are one cause of particulate matter and acid rain. To reduce nitrogen oxide (NOx) discharge, we also use low-NOx burners and exhaust gas denitrizers. The white plumes rising from the stacks on a cold day are not smoke, but steam.

Exhaust gas denitrizer (removal of NOx)



Ammonia is injected into the exhaust gas. The de-NOx catalyst stimulates a chemical reaction that turns the nitrogen oxides into harmless nitrogen and water.

Keeping the oceans clean

All water discharged from the power station undergoes pre-processing such as oil separation and neutralization. It is then treated by using condensation, sedimentation, filtration and neutralization, and the water quality is checked before it is discharged.

Protecting the global environment

LNG, like other fossil fuels, is a limited natural resource. To conserve this valuable resource and preserve the environment, we use our technical capabilities and cutting-edge equipment to ensure a high level of thermal efficiency in our power generation operations. Improving efficiency also means decreasing carbon dioxide emissions, which can help to mitigate climate change.

In-house production of hydrogen for cooling generators

The on-premise hydrogen production facility at Shin-Nagoya Thermal Power Station produces hydrogen that is used for the cooling generators at JERA's power stations. Hydrogen is expected to become an important energy source for Japan, and JERA is also working to build a "hydrogen society." The knowledge we gain by operating this facility will help us in our future hydrogen energy initiatives.



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