

Electric power condition of Wako campus in 2016

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The monthly electrical power consumption data for the RIKEN Wako campus (Wako) and RIKEN Nishina Center (RNC) and the energy supply by the cogeneration systems (CGSs) are shown in Fig. 1. The hourly average electrical power consumption in a day for RNC in 2016 is shown in Fig. 2. The annual data of the electrical power consumption and energy supply in 2016 are listed in Table 1. The total electrical power consumption of Wako in 2016 was 159,384 MWh, which is approximately the same as that in 2015. However, the total electrical power consumption of RNC in 2016 was 77,877 MWh, which is 4% higher than that in 2015. When the RI Beam Factory (RIBF) experiments using an uranium (²³⁸U) beam were conducted, the maximum electrical power supply to Wako from the Tokyo electric power corporation (TEPCO) reached 21.5 MW with a CGS output of 6.5 MW on June 10, 2016, and the maximum electrical power consumption of RNC reached 17.9 MW on October 31, 2016.

A complete overhaul of the gas turbine of CGS #1 after 4,000 h of operation was performed from 31 August to 3 September 2016.

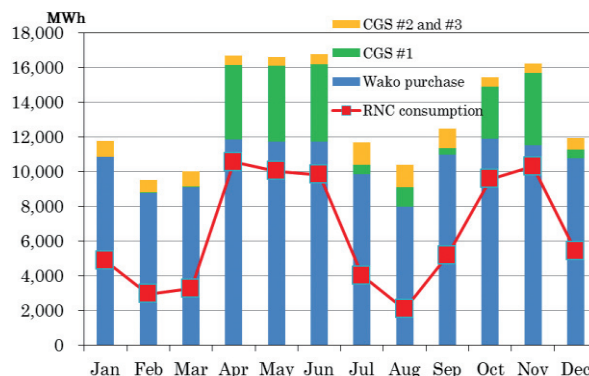


Fig. 1. Monthly electrical power consumption and energy supply by CGSs in 2016.

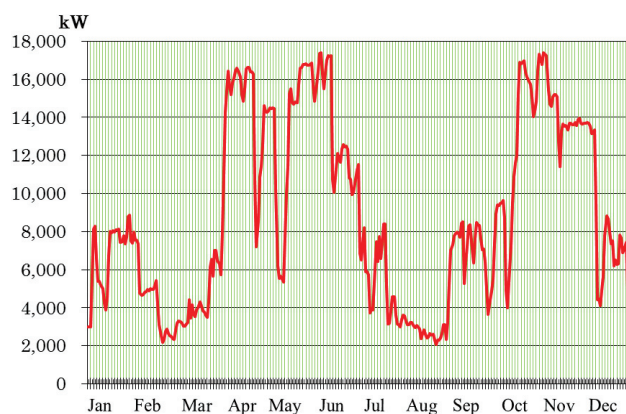


Fig. 2. Hourly average electrical power consumption of RNC in a day in 2016.

Table 1. Annual data of electrical power consumption and energy supply in 2016.

	Total (MWh)	Note	% of 2015
Wako purchase	126,878	Total electrical power supply to Wako from TEPCO	94%
Wako consumption	159,384	Wako electrical power consumption (CGSs + TEPCO)	100%
RNC purchase	54,881	Total electrical power supply to RNC from TEPCO	95%
CGS #1	22,996	CGS #1 total electrical power output	134%
CGS #2 and #3	9,510	CGS #2 and #3 total electrical power output	145%
RNC consumption	77,877	RNC total electrical power consumption	104%

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