

## Reviewing PC Standby Power to Save Energy

PCs are left on even when employees leave their desks for lunch and meetings. The HIOKI Clamp-On Power HiTester 3169-20/21 captures real-time conditions to enable review of power-saving settings in order to modify PC configurations to save energy.

### ■ Highlights

Measuring power consumption trends lets you measure consumed power of PCs. Energy-saving effectiveness can then be verified from power trend data collected after taking energy-saving measures.

#### Energy-Saving Measurement Flow

##### Investigate the Present State

Measure the power consumption of present PC as it relates to the work schedule at daily, weekly and monthly intervals. Monitor actions of PC users to determine the relationship between PC usage and operating status.

##### Ascertain PC operating characteristics

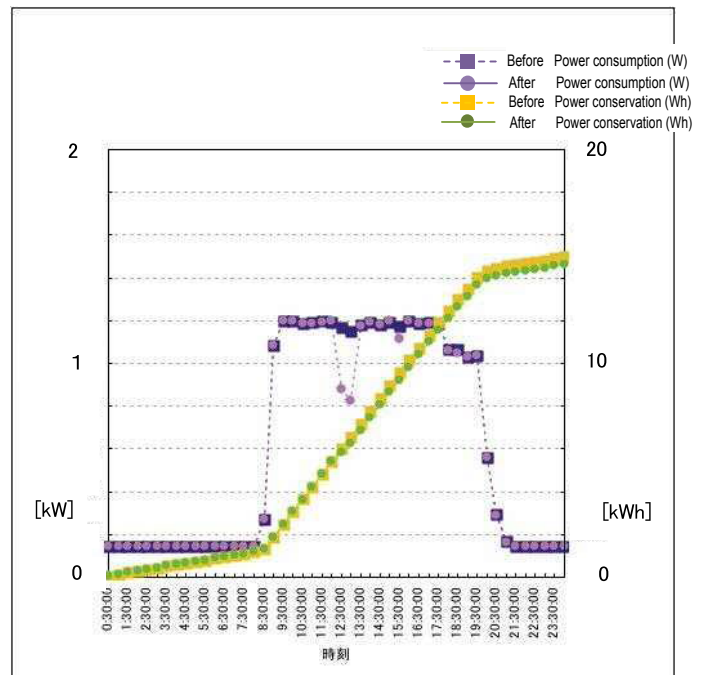
Almost all PCs in the office are desktops. For design work, two monitors are attached to each PC. The PCs are equipped with power-saving functions.

##### Ascertain Problems

PC operating times are user-controlled. The power-saving functions of each PC are user-controlled. Almost everyone turns on their PC when arriving at the office. They do not turn their PCs off during work hours. After work hours, departments working overtime keep their PCs on.

##### Measure and Ascertain Effectiveness

Monitor brightness was reduced as much as possible without causing eye strain or impeding work. To minimize power consumption, power-saving functions are configured manually. PCs used infrequently, such as shared PCs, are turned off when not in use. For PCs that are not used for a while, such as during lunch or meetings, standby mode is enabled and the monitors are turned off.



This shows PC power consumption before and after countermeasures. Countermeasures include enabling PC standby settings to reduce power consumption during lunch time. This graph shows power measurements at the UPS with nine PCs connected.



CLAMP-ON POWER HiTESTER 3169-20/21  
CLAMP-ON SENSOR 9661

#### Products used

CLAMP-ON POWER HiTESTER 3169-20 or 3169-21  
CLAMP-ON SENSOR (500A) 9661  
PC CARD (512MB) 9728

- \* The photo shows four 9661 clamp current sensors, which enables up to four systems to be measured at once.
- \* The graph shows the acquired data displayed in a PC spreadsheet program.