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5. TEPCO Ohtsuka Branch, Tokyo (Japan)

Architect and Tokyo Electric Power Co., Engineer: Inc. and Tokyo Electric

Power Service Co.

Contractor: Takenaka Komuten Ltd. Works' duration: Sep. 1978–Nov. 1979,

15 months

Service date: November 1979

Size: Total floor area 5477 m²; B1/4F

This building was meant to be a "model energy conservation building". At the beginning of the planning, the following goals were set:

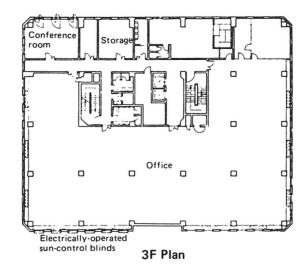
 comprehensive energy conservation measures are to be adopted

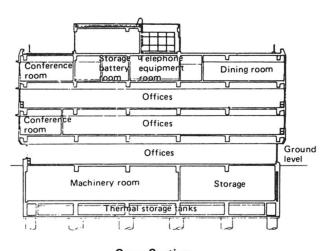
- energy conservation design procedures are to be disclosed
- detailed measurements of the energy consumption both during and after the construction are to be carried out.

Fig. 1 shows the plan and elevation of the building. Fig. 2 shows the major energy conservation methods which were introduced to this building. The main component of the heating and airconditioning system is heat pump.

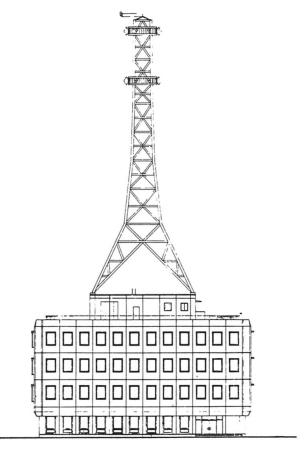
The energy conservation rate was estimated to be 47 percent, and the result shows the goal was almost achieved as shown in Fig. 3. This building has been used as an ordinary branch office of TEPCO since its completion.

(T. Maekawa)





Cross-Section
Fig. 1. Plan



Front elevation



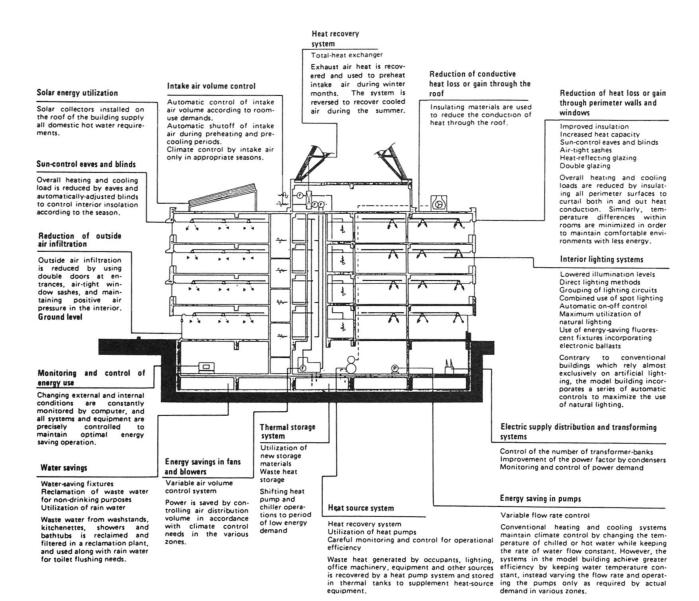


Fig. 2. Outline of energy-saving technologies

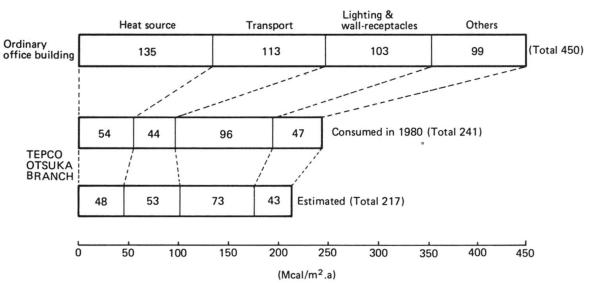


Fig. 3. Energy Consumption