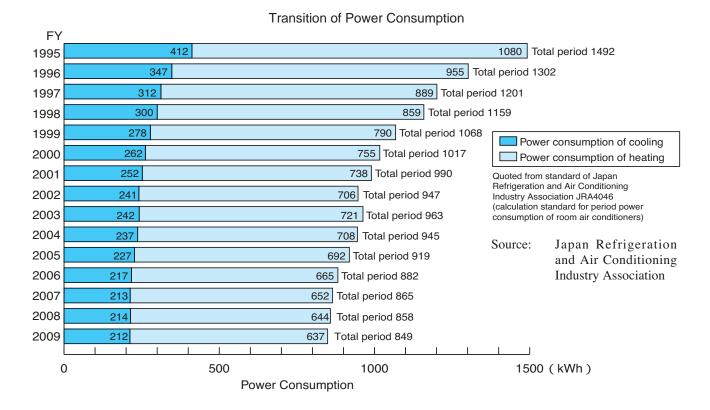
## 4. Energy Conservation for Major Household Electrical Appliance

Air conditioner (simple average value of representative models of cooling and heating, wall-hanging type, cooling ability 2.8kW class and energy-saving type)



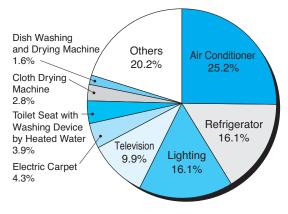
Television

(1997, 2000, 2003 model: average of CRT-based television with 32 in. wide-screen 2006, 2007, 2008, 2009 model: average of liquid crystal display with 32v in. wide-screen)

	Annual Power Consumption (kWh)	1997 = 100
1997 model	231	100.0
2000 model	220	95
2003 model	207	90
2006 model	161	70
2007 model	150	65
2008 model	137	59
2009 model	120	52

Source: The Energy Conservation Center, Japan, "Energy Efficiency Catalog 2009 summer/winter edition"

## <Reference> Power Consumption Comparison for Household Appliances

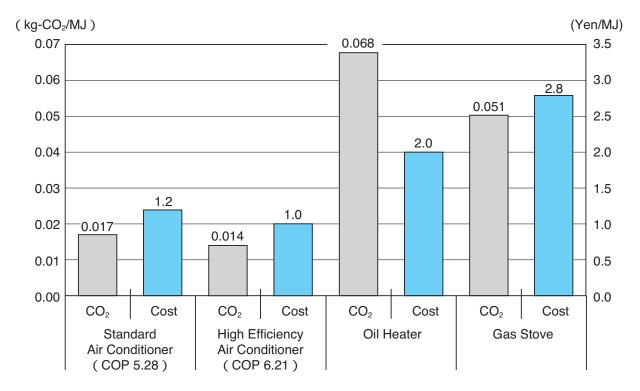


In our household, approximately 67% of electricity is used for four categories; air conditioner, refrigerator, lighting and television. Responding to equipment that consumes much electricity properly is important to improve the energy-saving effect. Selecting the equipment of which energy-consumption efficiency is good when you replace it with new one, and keeping the proper temperature, reducing the number of opening and closing door of refrigerator, and avoiding waste little by little vary the monthly electricity bill.

Note: As the percentages are rounded off, total is not 100%.

Source: Agency for Natural Resources and Energy, "Outline of power demand in FY 2004" (Estimated performance in FY 2003)

<Reference> Comparison of Environmental Performance of Heating Appliance



Comparison of CO<sub>2</sub> Emission and Running Cost per 1MJ for Heating

## [\* Condition of estimation]

- CO<sub>2</sub> emission intensity: "Act on Promotion of Global Warming Countermeasures" (Operator-specific Emission Factor)(The values for electrical heating appliances are based on actual data taken by TEPCO in FY 2009 (factor after adjustment))
- 2. Electric power rate: TEPCO "metered lighting B" second stage electric power rate unit price (as of March 2010)
- 3. Oil price: "Survey on the price (shop price including consumption tax) of kerosene for consumer use (sold at other than filling stations) (Kanto Bureau)," (March 2010) The Oil Information Center, The Institute of Energy Economics, Japan
- 4. Gas rate: gas rate table B for general contract with Tokyo Gas in Tokyo area and its vicinities (March 2010)
- 5. Equipment efficiency: heating by standard air conditioner COP5.28, heating by high efficiency air conditioner COP6.21, and efficiency of oil heater/gas stove 1.0.
- 6. For air conditioner, the value is estimated at outdoor air temperature 7°C as is the JIS standard condition. At outdoor air temperature 2°C, estimated value of CO<sub>2</sub> emission of high efficiency air conditioner is 0.028[kg-CO<sub>2</sub>/MJ], and the cost is 2.0[Yen/MJ].
- \* MJ (Mega Joule): Thermal unit. For example, required amount of heat per hour for 10 tatami mat room is 10.8[MJ], derived from heating load of living room (ground floor) (185[W/m²]) specified in Society of Heating, Air-Conditioning and Sanitary Engineers of Japan Standards (SHASE-S).