

Electric Power Consumption by Office Tenants (December 2015)

The average of 2015 was 37.1 kWh/tsubo; the record low.

March 4, 2016

Xymax Real Estate Institute has been studying the volume of electricity consumed by office tenants in Japan on a continuous basis. The quarterly reports have been released since June 2013. The latest report, which covers the results for the period ending December 2015, is available now.

Findings from Research

The areas where electricity is supplied by Tokyo Electric Power Company (TEPCO)

- The consumption in the autumn of 2015 (average of October to December) was 33.8 kWh/tsubo; a YoY decrease of 1.2 kWh/tsubo or 3.4% from 35.0 kWh/tsubo in the autumn of 2014.
- The consumption in 2015 (annual average) was 37.1 kWh/tsubo; similar to the autumn average, a YoY decrease of 1.3 kWh/tsubo or 3.4% from 38.4 kWh/tsubo in 2014.

Research Overview

Definition	Electric power per tsubo (3.3 sqm) consumed by a tenant in office buildings in a month.
Period	January 2010 – December 2015 (data was collected every month)
Subject Data	Of office tenants of office buildings managed by Xymax Group, we obtained valid data from approx. 3,000 tenants in approx. 300 buildings.
How to Calculate	<ol style="list-style-type: none"> 1) Collect the monthly electric power consumption (kWh) of each tenant. 2) Adjust the preceding data to a five-day business week excluding Saturdays, Sundays and national holidays. 3) Calculate the electric power consumption per tsubo (kWh/tsubo) by dividing the preceding data by the rentable area (tsubo). 4) Calculate the average amount for each electric power company.
Notes	<ul style="list-style-type: none"> • Non-office tenants such as retail, warehouse and computer room tenants are excluded. • Electricity consumed for the area other than the tenant's exclusive area, such as the common area lights and elevators, are excluded. • Energy consumed for centrally-controlled air conditioners and gas heat pumps, where tenant-by-tenant calculation is impossible, is excluded. • The month of the data is the month of the meter reading, which is generally the 20th day of each month. • Extraordinary amounts (too high, too low) are identified as outlier and excluded. • The number of tenants varies month by month as tenants move in and out.

For the previous research, please refer to the report Electric Power Consumption by Office Tenants (September 2015) released on December 9, 2015.

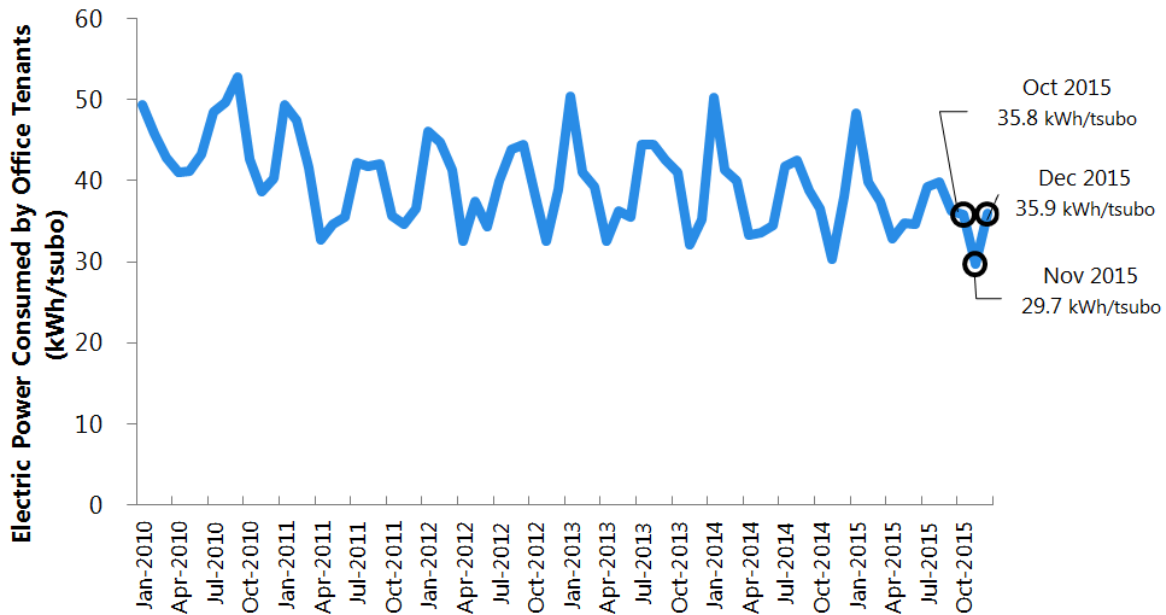
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1. Electric Power Consumption per Month

Figure 1 shows the monthly electric power consumed by office tenants in the period from January 2010 to December 2015. The consumptions in the latest three month were 35.8 kWh/tsubo in October, 29.7 kWh/tsubo in November and 35.9 kWh/tsubo in December.

Figure 1: Electric Power Consumed by Office Tenants per Month (TEPCO Areas)



2. Autumn Average Decreased Year-over-Year

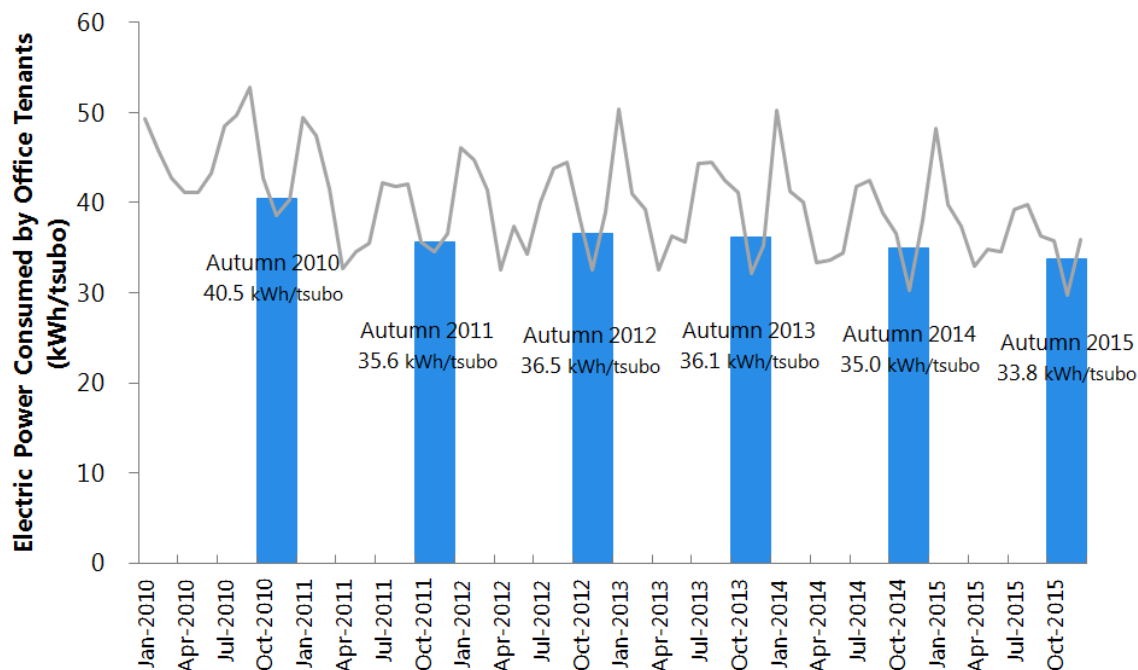
The electric power consumed by office tenants in the TEPCO areas in autumn (the average of October, November and December) in the period from 2010 to 2015 was 40.5 kWh/tsubo, 35.6 kWh/tsubo, 36.5 kWh/tsubo, 36.1 kWh/tsubo, 35.0 kWh/tsubo and 33.8 kWh/tsubo, respectively. The autumn of 2015 marked a record low figure since we started the survey with a year-over-year decrease of 1.2 kWh/tsubo or 3.4% (Figure 2).

The decrease is likely to have been influenced by the relatively warm winter in the year end of 2015 that decreased the use of heaters in offices.

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Figure 2: Autumn Average Electric Power Consumed by Office Tenants (TEPCO Area)



3. Annual Average, Also Record Low

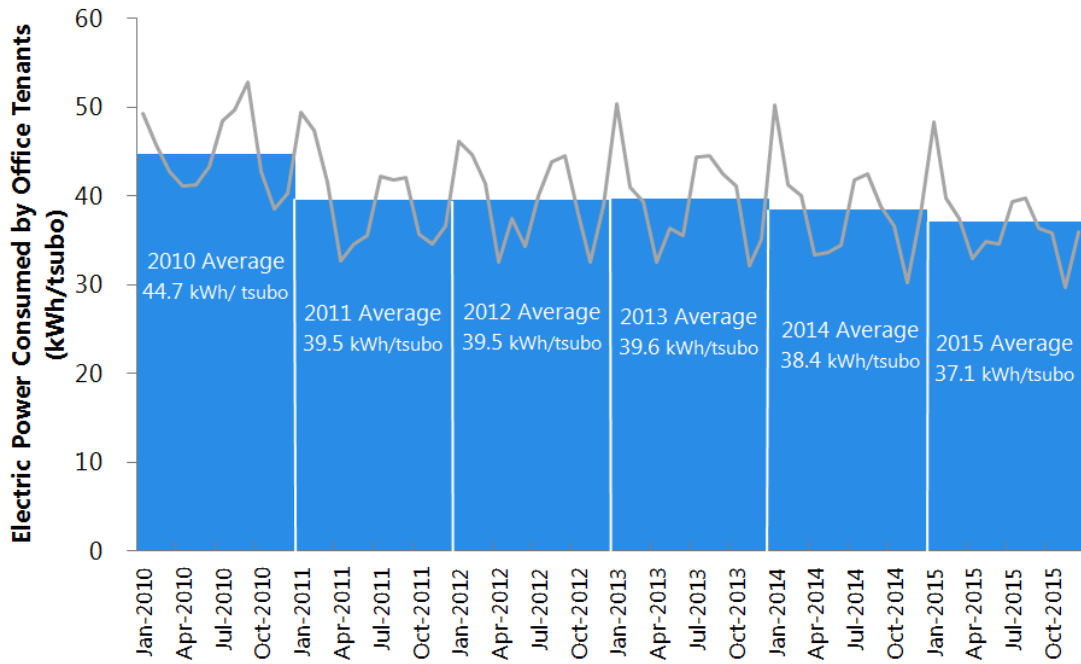
The annual average electric power consumed by office tenants in the TEPCO areas in the period from 2010 to 2015 was 44.7 kWh/tsubo, 39.5kWh/tsubo, 39.5 kWh/tsubo, 39.6 kWh/tsubo, 38.4 kWh/tsubo and 37.1 kWh/tsubo, respectively. Similar to the autumn average, the consumption in 2015 was a year-over-year decrease of 1.3 kWh/tsubo or 3.4%; the lowest in the past six years (Figure 3).

The electricity consumption in offices in regions across Japan including Tokyo, Chubu, Kansai and Kyushu is decreasing (Figures 4, 5 and 6). These decreases are thought to be the result of combined factors including not only the temperatures but also the wider use of energy-saving devices in offices after large-scale replacements took place since 2013 such as replacements of air conditioners and personal computers with newer ones or replacement of lighting fixtures with LEDs.

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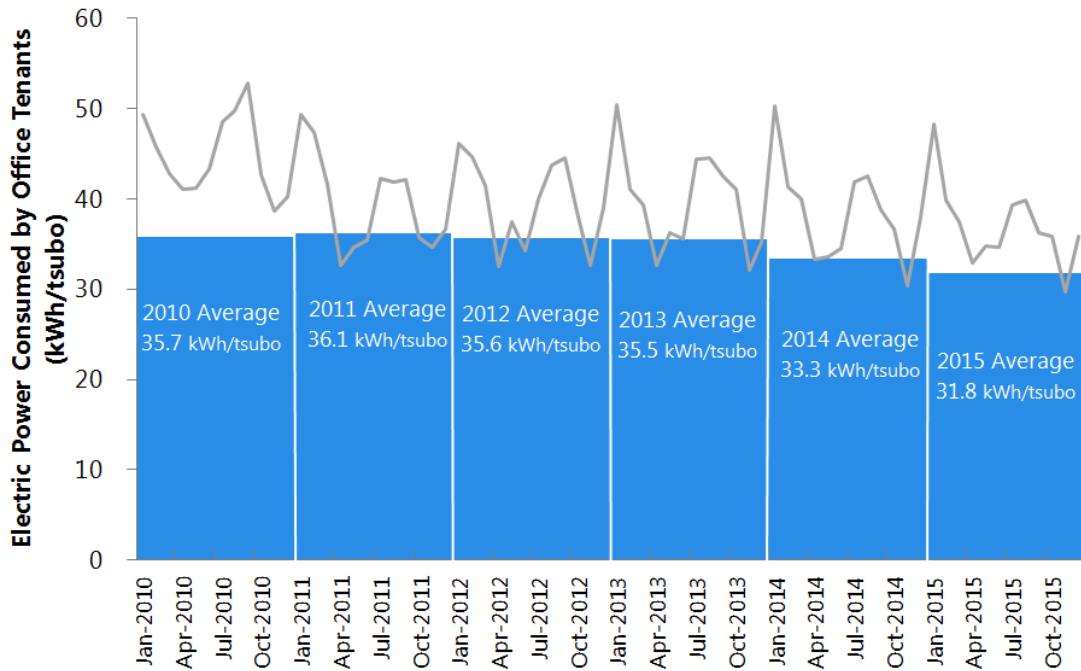
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Figure 3: Annual Average Electric Power Consumed by Office Tenants (TEPCO Area)



Reference: Annual Average Electric Power Consumed by Office Tenants in Major Areas in Japan

Figure 4: Annual Average Electric Power Consumed by Office Tenants (Chubu Electric Power Company Area)



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Figure 5: Annual Average Electric Power Consumed by Office Tenants (Kansai Electric Power Company Area)

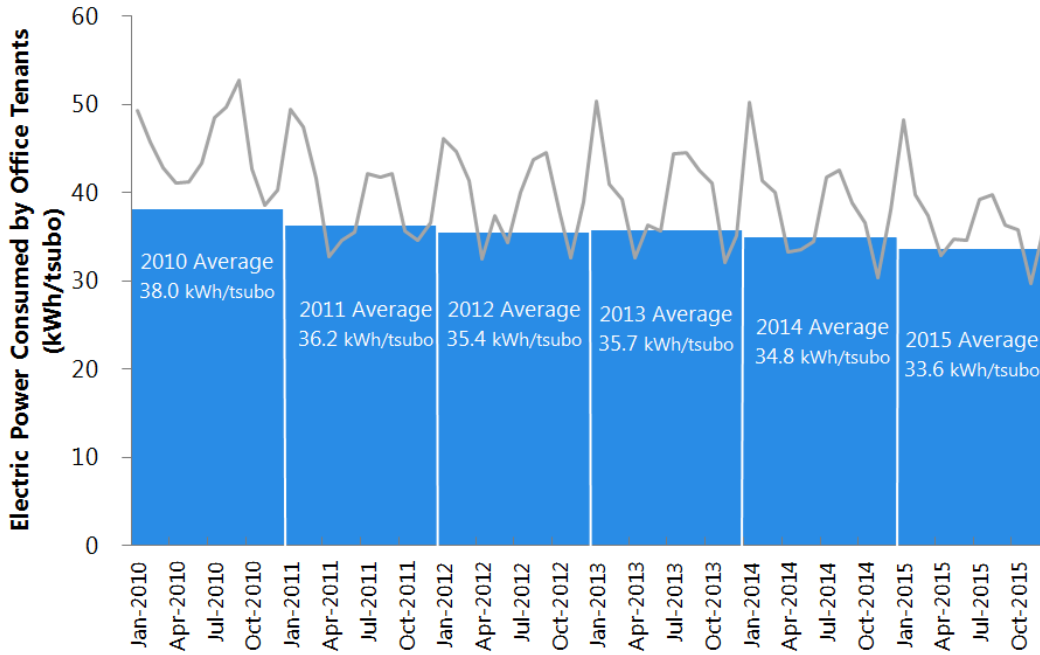
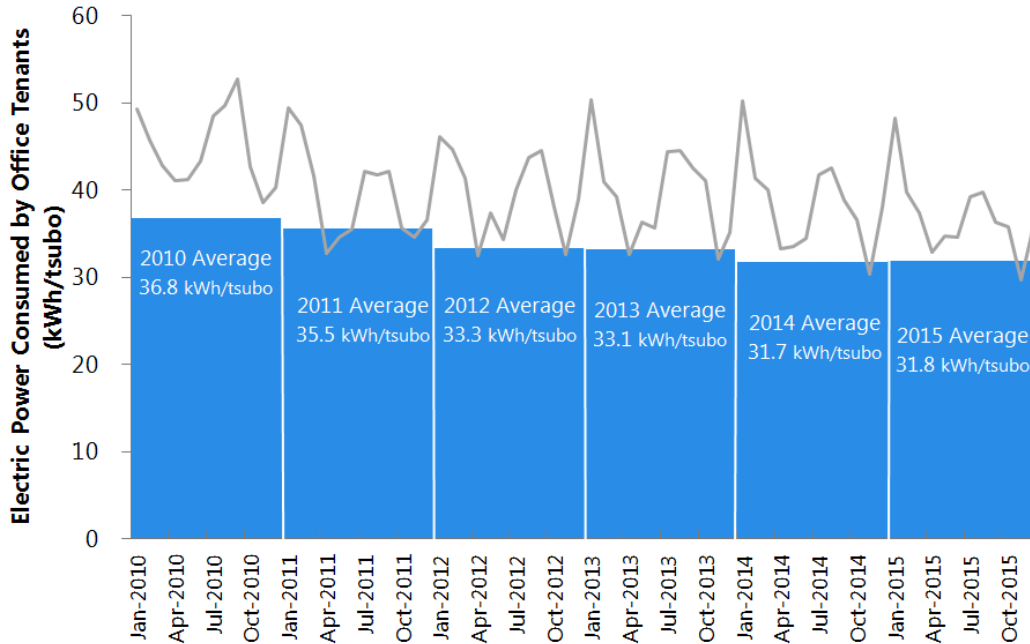


Figure 6: Annual Average Electric Power Consumed by Office Tenants (Kyushu Electric Power Company Area)



For questions on this report, please contact us.

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