Workplace – Energy consumption for being at work/school/university

1. School

- Latest data collected by Prof. Dale
- School in Luxembourg **3 kWh/d/p**

2. Research institute

- Latest data collected by Prof. Dale
- Research institute in Luxembourg **50 kWh/d/p**

3. University

Boston University

- Reference http://www.bu.edu/cpo/what-we-do/energy/energy-sources/
- 34000 students, 4000 academic staff, 10000 administrative staff, 48000 persons in total
- 200000000 kWh electricity per year and 1060000 MMBTU oil, gas and steam per year
- Million British Thermal Units: 1 MMBTU = 293 kWh
- Total energy consumption per year 511.000.000 kWh
- Divided by 365 days and 48000 persons leads to **29 kWh/d/p**

Cambridge University

- Reference https://www.environment.admin.cam.ac.uk/facts-figures
- 35000 persons in total
- 240 GWh of energy consumption per year (100 GWh gas, 140 GWh electricity)
- Divided by 365 days and 35000 persons leads to **19 kWh/d/p**

Average for universities

- It is intuitive that the university should be in between schools (3) and research institutes (50)
- The average energy consumption from Boston and Cambridge results in **24 kWh/d/p**

4. Office

- Reference „Energieinstitut der Wirtschaft GmbH“, Germany
- https://www.energieinstitut.net/de/system/files/0903_final_dienstleistungsgebaude_20120530.pdf
- The energy value from the study includes all types of energy
- Average of 71 different offices ca. 5000 kWh/year/p results in **14 kWh/d/p**

5. HORESCA (HOtel, REStaurant, CAfé)

- Reference „Energieinstitut der Wirtschaft GmbH“, Germany
- https://www.energieinstitut.net/de/system/files/0903_final_dienstleistungsgebaude_20120530.pdf
- The energy value from the study includes all types of energy
- Average of 81 food stores 17000 kWh/year/p results in **47 kWh/d/p**
- Average of 225 workplaces gastronomy 17400 kWh/year/p results in **48 kWh/d/p**
- Average of 101 hotels 26200 kWh/year/p results in **72 kWh/d/p**
- The simple average (not taking into account how many persons work in each sector) is **56 kWh/d/p**