

Are Eurostat Electricity Prices Data Reliable?

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Abstract

There is always a problem of data reliability in the economic analysis. In most cases, those who do research are not the same people who collected data – or at least their bigger part, especially in cases of international comparisons. And it is usually very complicated to verify the data reliability. Every economist in her or his career encountered anecdotic “evidence” of data alleged unreliability, usually in a form of gossips from within any statistical office suggesting that data produced by it might not be (or are not) reliable enough or are as a matter of fact wrong. Yet, at the same time all economists are using such data to do analysis; politicians are (selectively) using them to make their (selective) points, and consultancies and businesses are using such data to all possible purposes needed to run business.

We decided to verify statistical data provided by Eurostat regarding retail electricity prices. We looked for price lists of companies supplying electricity in respective countries (EU27) for years 2006 through 2010. According to the situation within each particular country we used price lists of three biggest suppliers (if there were three) – one for a big city, one for an industrial area and one for countryside. Such a clear distinction was not available everywhere and also not everywhere there were three suppliers. Moreover, in some countries there is still sizeable public supplier market (France, Italy, Spain) – sometimes know as a supplier of the last resort / SoLR (the name used in different countries for different things). Public supplier of SoLR also usually means that prices of such a supplier are regulated. In fact, approximately one third of the whole European electricity retail market is still regulated. Then, we found typical consumers in four basic categories of consumption – households (DOM), SMEs, big consumers from high voltage network and big consumers from very high voltage network. In many countries there was more than one typical representative for each category. Combining data from pricelists (excluding action offers) and consumption (and capacity) data for typical consumers, we could build a database of prices for typical consumers in each category for every selected supplier in each country. This database was then compared to data available from Eurostat.

Conclusions

By comparing Eurostat data with data built from the price lists the way down-up we found that at least for electricity retail market Eurostat can be relied upon as a source of mostly unbiased data. However, several qualifications must be applied to this statement. The older are data, the less reliable they are. Esp. data for years 2007 and older (before statistics rearrangement) cannot be generally re-

lied upon. (Compare as illustrative examples Fig. 1 and Fig. 2). Generally, least reliable data are those for big costumers fed from high voltage networks, but not data from the biggest customers using very high voltage network. Moreover, prices for HV customers seem to be overestimated by Eurostat (see Fig. 4 and Fig. 5).

From data we collected we can also derive several conclusions regarding electricity prices all round Europe. Among the most important ones are the following. Prices for households and SMEs vary substantially among countries (see Fig. 1 and Fig. 3). The degree of differences amounts to hundreds of percents. The most important sources of such variability are taxes of various kinds. However, prices for big consumers (mostly companies with greatest political power and also usually big exporters) do not vary as substantially. The reason for that are mainly exceptions in taxes for big consumers in virtually all countries within EU. The only exceptional country in case of VHV is Greece where competition in supply is virtually non-existent and de facto cross-subsidies still exist (see Fig. 5).

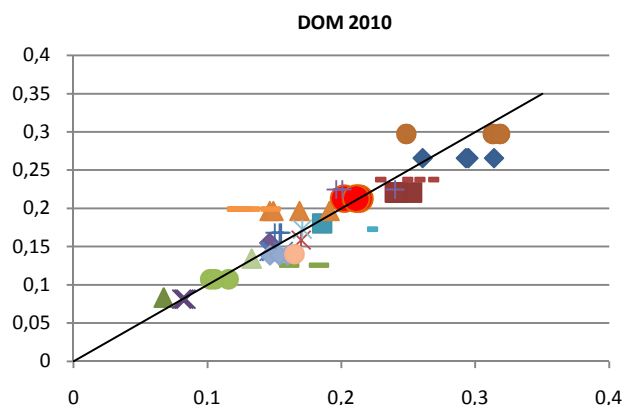


Fig. 1 Data for households in 2010 – Most countries are on 45° line which means that Eurostat data correspond to those found by analysis of price lists. There are only several notable differences (esp. Sweden where prices are lower than suggested by Eurostat)

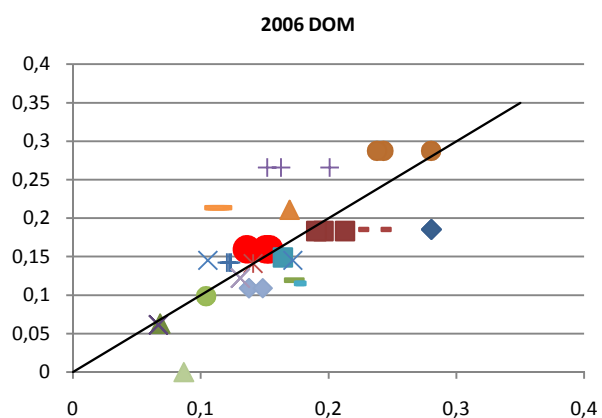


Fig. 2 Data for households in 2006 – An example of “old” Eurostat data suggests that pre-2007 numbers are too “random” in terms of reliability that no one should rely on them when doing analysis. However, it is also to say that there is no clear remedy for the problem since even price list data are not readily available.

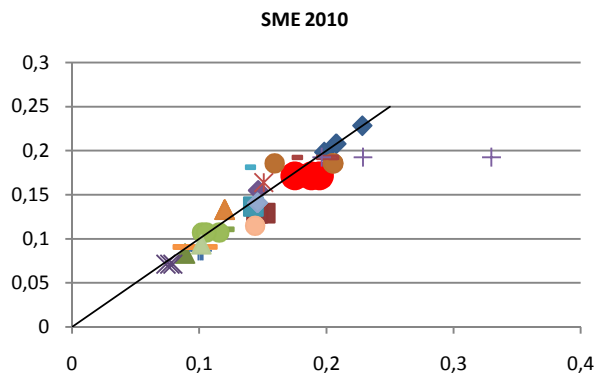


Fig. 3 Data for SMEs in 2010 – Most countries are on 45° line which means that Eurostat data correspond to those found by analysis of price lists. Notable differences are only some parts of Slovakia (with prices higher than suggested by Eurostat) and Spain (with prices lower than suggested by Eurostat)

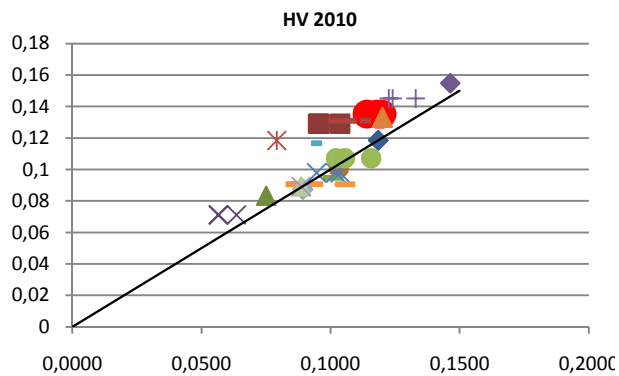


Fig. 4 Data for HV in 2010 – Most countries are on 45° line which means that Eurostat data correspond to those found by

analysis of price lists, yet the majority is not that great and overwhelming. Many countries are in general cheaper than suggested by Eurostat (incl. Czech Republic, Belgium, Slovakia, Portugal, Spain, Germany, Italy and Bulgaria). The whole cloud of data is pushed above 45° line.

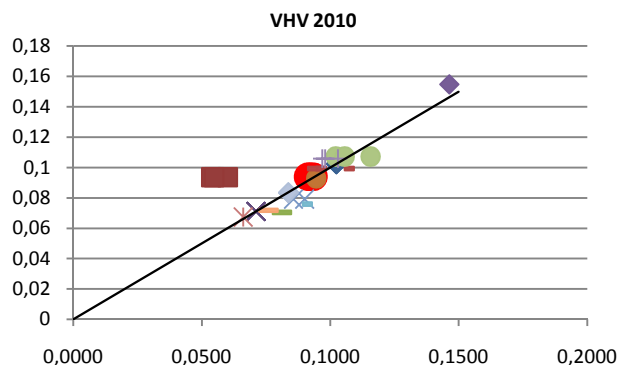


Fig. 5 Data for VHV in 2010 – Surprisingly, most countries from the group of biggest customers are on 45° line which means that Eurostat data correspond to those found by analysis of price lists. The only notable differences are data from Belgium, where electricity for this customer group is substantially lower than those suggested by Eurostat. Notice also extraordinary high prices for Greece – approx. 40% higher than anywhere else.