Analysis of electricity pricing and renewables generation data for 29 European countries shows that over the past decade there has been no clear trend of countries with greater growth in renewables seeing higher bills. While most countries have seen an increase in renewables and consumer electricity prices, the rate of each relative to the other varies across the continent.

Policy decisions on how electricity bills are constructed have a much clearer impact on consumer costs than the rate at which countries are making the transition to renewables. Climate sceptics often argue the transition to green electricity will be expensive for consumers, with costs for installing new technologies being added to household electricity bills.

Between 2010 and 2019, Luxembourg saw the highest rise in the proportion of electricity generated from renewables, rising by more than 545% from 6.5% to 42.1%, while its electricity prices rose 4.2%. Latvia, in contrast, saw the largest hike in electricity prices, at 55.3%. However, the country’s share of electricity generated by renewables shrunk by 8.3%, largely as a result of unfavourable hydropower conditions. Few countries fit any kind of pattern. Turkey and Hungary saw significant falls in their electricity prices of around 35% each over the last decade, despite large increases – 65.3% and 65.5% respectively – in the proportion of electricity generated by renewables. The 29 European nations sampled – the EU 27 minus Malta, plus Norway, the UK and Turkey – on average generated 39% of their electricity in 2019 from renewables, compared with 26% in 2010. Over the same period, the average electricity price grew from €0.16 to €0.18 a kilowatt-hour (kWh).

Indexing the annual average change in the proportion of electricity generated from renewables against average electricity prices for all 29 countries reveals that renewables have generally been growing at a much faster rate than bills. Indeed, there have been years where electricity prices fell on average, yet renewables grew significantly.

Source: energymonitor.ai