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# Briefing Note

# HOW DO ENERGY COSTS AFFECT COMPETITIVENESS OF UK STEEL?

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**SUMMARY**

The UK's steel industry is facing a number of pressures. The collapsing price of steel – which is, in part, being driven by the 'dumping' of Chinese steel in European markets – is placing huge competitiveness pressures on the UK's steel industry. However, the UK's energy and climate policies have exacerbated the problems faced by the UK's steel industry by burdening the UK with punitively high electricity prices.

## 1. THE COSTS OF ENERGY FOR STEEL PRODUCERS

Energy constitutes a significant portion of costs for energy intensive industries. Although grid electricity accounts for a smaller proportion of operating costs at blast furnaces specifically, electricity is hugely important for steel operations in general. This includes electric arc furnaces and a number of downstream processes that Tata Steel and other steelmakers operate in the UK. Energy accounts for between 20 – 40% of the cost to produce steel, according to the World Steel Association.

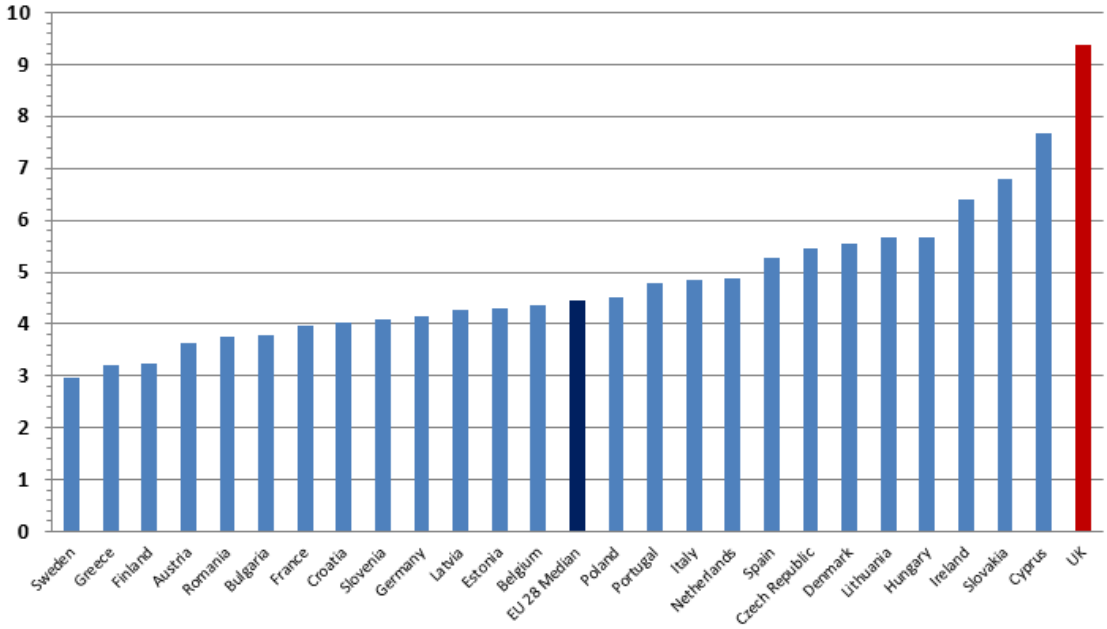
## 2. WARNING FROM THE INDUSTRY ABOUT ENERGY COSTS

This is a situation that industry has been warning the Government about for a considerable time, and electricity prices are set to increase even further over the coming decade. For example, last year the manufacturing body EEF warned that large industrial energy consumers between 2014 and 2020 face a 47% increase in electricity prices. More recently, EEF highlighted the detrimental impact of the UK's unilateral Carbon Price Floor (CPF), which is estimated to cost energy consumers £23 billion from 2013 to 2020. Furthermore, Liberty Steel has recently said that high energy costs and insecurity of energy supply in the UK could force it to move their factories abroad.

## 3. HOW DO THE UK'S ELECTRICITY COSTS COMPARE INTERNATIONALLY?

Europe as a whole is suffering from uncompetitive energy prices. International Energy Agency figures show that average European industrial consumers pay twice as much for their power as their counterparts in the United States. The situation for the UK is even more concerning. Out of all EU member states, the UK's energy intensive industries face the highest electricity prices.

**Figure 1: EU Industrial Electricity Prices (p/kWh Jan-Jun 2015)**




*Source: EIUG*

## 4. WHY ARE UK ELECTRICITY COSTS SO UNCOMPETITIVE?

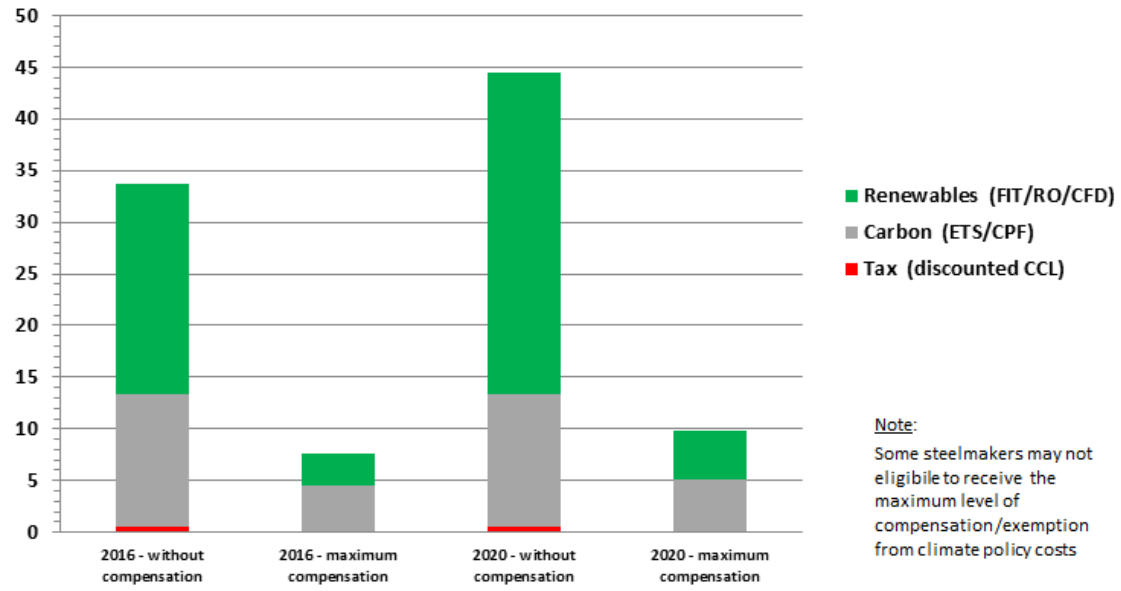
A series of energy and climate measures have added to the cost of electricity for industrial users. This includes costs of schemes such as the EU-wide ETS but also the costs of the Government's unilateral CPF, which currently sets a price of carbon that is four times the level of the EU price. The costs of climate measures are expected to grow for industry, and by 2030 the impact of these policies will collectively add 66% to the costs of electricity for industrial users, according to the Department for Energy and Climate Change.

UK steelmakers are typically paying around £80-90/MWh for their electricity – of this £14/MWh is attributable to the cost of carbon (EU ETS and the CPF) and £20/MWh to the cost of renewable subsidies (RO and FITs) (see Figure 2).

## 5. HAS THE GOVERNMENT TRIED TO MITIGATE THESE COSTS FOR STEEL MAKERS?

The Government has implemented an energy intensive compensation scheme, which is targeted at steel and other energy intensive groups. There are a number of issues with the scheme, particularly as it does not fully compensate industry for the costs of climate measures. State-aid rules mean that the full costs of climate policies cannot be mitigated and the scheme does not currently mitigate all of the costs of climate policy *(see Figure 2)*. There is also no guarantee that the compensation scheme will be extended beyond the spending review period, which offers the industry uncertainty for the future.

**Figure 2: Climate Policy Impact on Electricity Prices and effect of compensation measures (£/MWh)**




*Source: DECC/ EIUG*

## 6. CONCLUSION

The UK's steel industry is facing a number of issues, including the problems arising from the dumping of Chinese steel in European markets at below cost price. However, the very high cost of electricity is exacerbating the problems faced by UK steel industries and other energy intensive industries.

As part of the package of measures for energy intensive industries and manufacturing in the UK more broadly, the Government should seek a re-think on energy policy. This should include a review of how climate policies more broadly are impacting on British manufacturers – rather than pursuing the comparatively ineffective policy of compensating energy intensive industries for the costs.

Furthermore, substantial shale production could reduce costs for energy intensive industries. The House of Lords Economic Affairs Committee was clear about the danger of delays in shale exploration to energy-intensive industries. They said: "*if the UK does not develop its shale resources in a timely fashion, it runs a serious risk of losing the energy intensive and petrochemical industries which depend on competitively priced energy and raw materials.*" This highlights the importance of ensuring that exploratory drilling takes place to make a true assessment of the UK's shale potential.

## 7. MUST READS

- **Tony Lodge**: *Great Green Hangover*
- **Rupert Darwall**: *Central Planning with Market Features*

## 8. INTERVIEWS

- **Daniel Mahoney:** *Sky News with Adam Boulton*

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