Refining Britain's Fuels

Crisis - What crisis?

UK manufacturing employs 2.6 million people and contributes to 10% of the UK's total Gross Value Added. Energy intensive industries, which comprise a wide number of sectors, such as refining, steel, cement, ceramics, aluminium, chemicals, paper and glass, support the direct employment of over 600,000 people, accounting for ~4% of GVA. However, the competitiveness of EIIs is under threat.

Industry matters

Manufacturing plays a significant role in the UK economy.

UK manufacturing employs 2.6 million people and contributes to 10% of the UK's total Gross Value Added[1] (GVA). Energy intensive industries (EIIs), which comprise a wide number of sectors, such as refining, steel, cement, ceramics, aluminium, chemicals, paper and glass, support the direct employment of over 600,000 people, accounting for approximately 4% of GVA[2]. Beyond their direct contribution to the economy, EIIs are also deeply linked to other sectors in ways that are not immediately obvious. Products manufactured by EIIs provide significant material input for many other goods and services. These industries have strong supply chain linkages and substantial feeds into sectors such as motor vehicles manufacturers, aerospace and construction. The multiplier impact on the UK economy is, therefore, considerable. Looking ahead, the contribution to economic growth and resilience of many traditional EIIs, such as refining, will continue to be significant in maintaining a robust UK economy and as a bridge to a lower carbon future. However, the competitiveness of EIIs is under threat. Since 2009, three refineries have closed in the UK, along with the last remaining shipyard in England and the last two remaining aluminium plants. The current crisis facing UK steelmaking is symptomatic of much wider issues, mirrored across the whole industrial fabric. Government has a role to play in recognising the current and future contribution of industry and in enabling its potential and ability to operate. In particular, the issue of higher costs and the effect of the cumulative impact of environmental and other regulations must be thoroughly considered. Further, the ability of industry to compete in international markets, in light of varying and diverging efforts across countries, must be addressed. At a point when industry's competitiveness is being eroded by the unilateral cost burden of regulation, urgent action is needed to ensure a regulatory level playing field. Considerations about industry competitiveness must also take into account carbon leakage risks for energy-intensive trade-exposed sectors, such as oil refining. Industry calls for policy to account for and mitigate potential impacts on competitiveness. A balance between environmental aspirations and a growing and thriving industry can be achieved and will be critical to ensure long-term success and in preventing adverse impacts on economic growth and resilience.

> ***"The UK's manufacturing sector is now at a critical stage and faces a number of challenges, the response to which will have profound impacts on long-term economic growth and resilience.***
>
> **Chris Hunt**
> Director General, UKPIA

> ***"For more than 15 years we have been telling successive governments that a raft of ill thought policies were body blows to the UK steel sector. Added together they have significantly put us in the sorry position we find ourselves in today.***
>
> **Gareth Stace**
> Director, UK Steel

Refining matters

The oil refining sector keeps the UK growing, thriving and moving.

Our domestic oil refineries make a substantial contribution to the UK economy, supporting an estimated 88,100 jobs, many with highly specialist skills and technological expertise. The annual contribution to the economy is some £2.3 billion[3] and each large refinery is estimated to inject ~£60 million[4] locally. If the activities of the UK oil production sector are included, an additional £9 billion[5] can be added to the annual contribution to the UK economy. As refineries, somewhere, are required to process UK production, the two sectors cannot be entirely segregated. With UK refineries sourcing over 85% of national fuel demand, and supplying more than one-third of primary energy demand needs, what happens in the industry reverberates throughout the entire economy. Furthermore, this vital manufacturing sector supplies important feedstocks for other industrial sectors and processes, such as petrochemicals, road and construction, lubricants and greases, heating fuels, paints and solvents, and carbon electrodes for the aluminium sector. The multiplier impact of the sector is thus much greater. UK and EU refineries are also, on average, less emission-intensive (0.21 tCO_2 per tonne of product) than non-EU refineries (0.29 tCO_2 per tonne of product) and carbon leakage, in the event of a refinery closure in the UK, has been estimated at about 135 per cent[6]. That is, every 100 units of CO_2 emissions reduced in the EU are replaced by 135 units outside it, resulting in a net increase in global emissions.

[1] EEF

[2] https://www.gov.uk/guidance/policy-impacts-on-prices-and-bills

[3] IHS, *The role and future of the UK refining sector in the supply of petroleum products and its value to the UK economy*, 2013

[4] UKPIA

[5] IHS, 2013

[6] Vivid Economics, *Carbon leakage prospects under Phase III of the EU and beyond,* Refining Case Study, 2014

[7] IEA, *World Energy Outlook,* 2015

[8] Idem

[9] Department of Energy and Climate Change, *Updated Energy & Emissions Projections*, 2015 (including aviation)

[10] IHS, 2013

[11] EU Commission, *EU Petroleum Refining Fitness Check: Impact of Legislation on Sectoral Economic Performance*, 2015

A challenging outlook - a case study of UK oil refining

Petroleum products are an essential energy resource and they will continue to be for years to come.

Global primary energy demand is expected to increase by 45%[7] through to 2040, with oil representing an essential part of the world's energy supply mix. During the same period, transportation is expected to continue being largely fuelled by petroleum products. Estimates indicate that petroleum products will continue to provide over 85%[8] of the world's total demand for transportation fuels; 90%[9] in the UK's case. For this reason, sustaining and maximising domestic production will be crucial to ensure a reliable and secure source of energy supply. However, UK refining is not without challenges to remain competitive and three refineries have closed since 2009. UK refineries operate on a global basis and face, amongst other pressures, strong international competition from countries with markedly lower industrial energy costs and, most crucially, a legislative background that severely disadvantages them against EU and global competitors. An independent study by IHS[10] puts the cost impact of legislation on UK refineries at around £11.03bn by 2030. The study concludes that no industry would bear such a mandatory investment burden for no return and a consequence could be the closure of more UK refineries.

At EU level, a Fitness Check[11] was initiated in 2012 in order to assess the regulatory framework for the refining industry and evaluate its impact on the sector's competitiveness. **The final report, published in 2015, provides evidence of the significant impact of the cost of EU legislation on the competitiveness of the refining industry**. The study concludes that the average cumulative cost of the different pieces of legislation (2010-2012) accounts for up to 25% of the total net loss of competitiveness of the sector. The study also points out to the additional costs from legislation coming into effect post-2012 and highlights the considerable effect of increasing energy prices on industry competitiveness.

A call for action

Industry is a significant contributor to economic growth and resilience.

The critical question is whether or not the necessary steps will be taken to ensure that industry's competitiveness is maintained. Our industry competes globally and it requires a level playing field in policy terms to enable it to succeed. Policy choices that recognise the essential role of industry will be key in preserving its long-term success and the energy resilience of the UK.

"The refining sector is vital to the economy, for decent jobs and local communities. Government needs to recognise the strategic importance of having a strong manufacturing base.

Tony Burke
Assistant General Secretary, UNITE

"Simply put, we need to recognise the importance of the oil refining sector to our growth and energy security, now and in the future. Refinery closures would result in loss of jobs, loss of critical infrastructure and carbon leakage. All the while, oil products will still be needed.

Chris Hunt
Director General, UKPIA

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