



Department
of Energy &
Climate Change

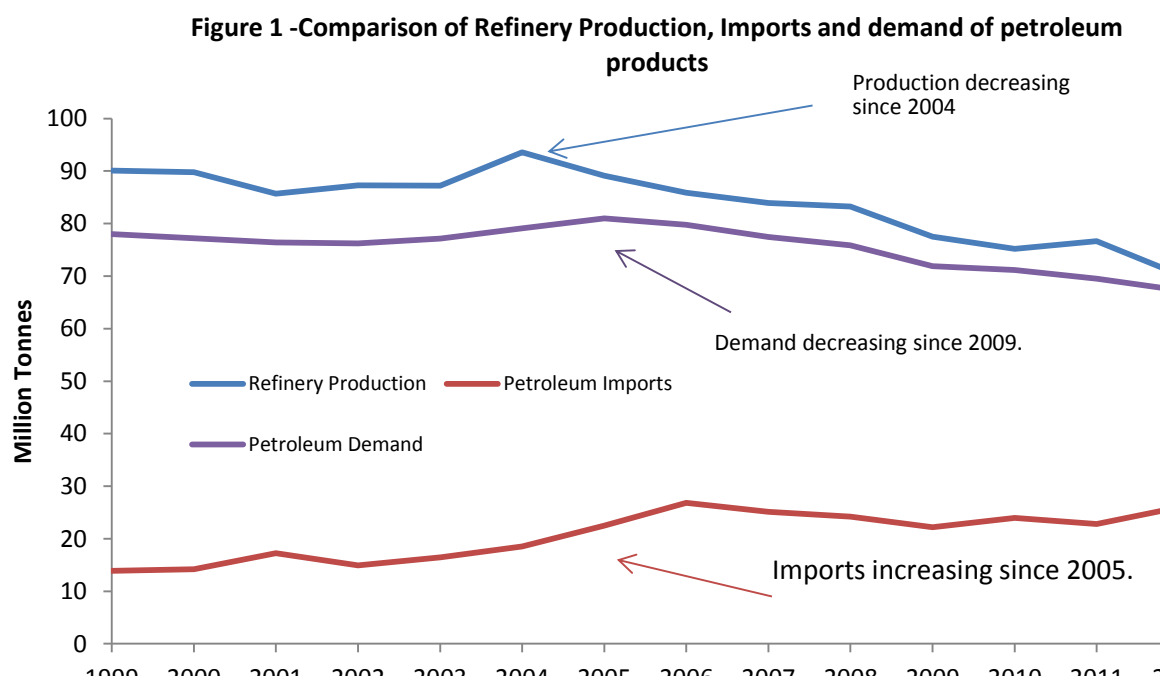
Call for Evidence on the role of UK refining and fuel import sectors in the supply of refined oil products into the UK market

20th May 2013

Review of the role of UK refining and fuel import sectors

Introduction

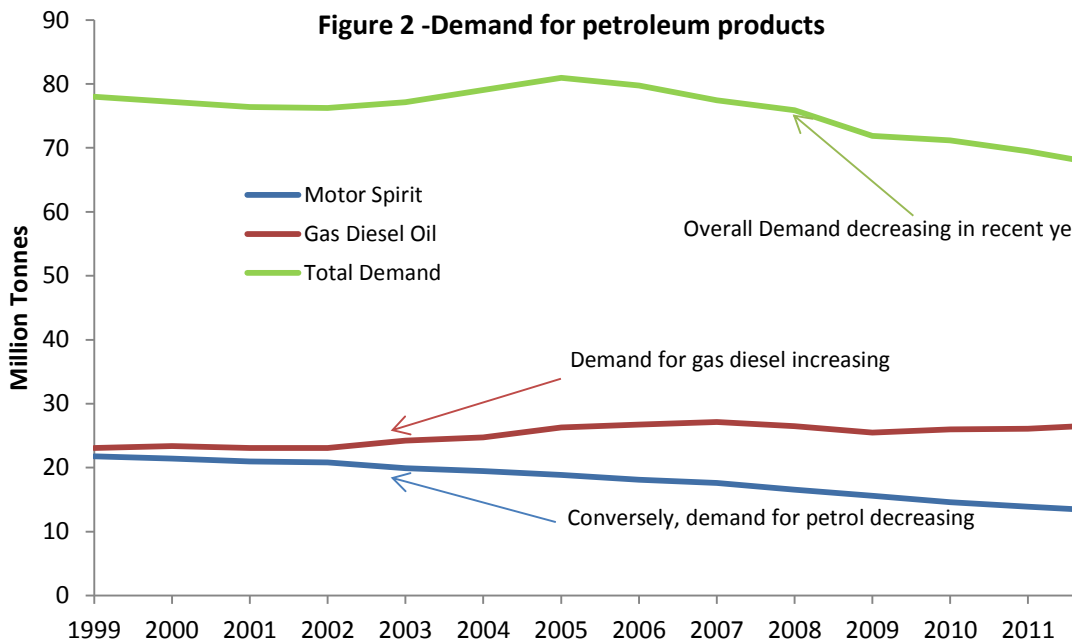
1. Refined oil products support our society and economy in functioning effectively by enabling the transport of goods, services and movement of people, and the supply of feedstocks for other processes such as chemicals. We therefore need to ensure that the UK has a downstream oil supply chain that meets UK demand, is resilient, and also supports jobs and economic development.
2. Refined products will likely continue to play an important role, in particular in meeting our transport needs well into the 2030s. Overall demand for petroleum products is expected to remain relatively constant in the short term, but low carbon futures (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65643/7101-energy-security-strategy.pdf) estimate at least 65 per cent of our transport fleet will need to be electrified by 2050 to meet carbon targets. Our exact levels of oil use in the future will be dependent on innovations in the transport sector.
3. In 2012, refined oil products provided around a third of the primary energy used in the UK, with total demand at 67 million tonnes. The UK currently relies on refined oil products for almost all of its motorised transport needs, with transport accounting for over 75 per cent of final consumption of refined oil product (almost 46 million tonnes).
4. Currently approximately 61% of UK demand for refined oil products is met from domestic refineries producing refined product from crude oil, and 39% through imports from other countries. Production from UK refineries has been declining whilst imports have been increasing. Figure 1 below sets out changes in domestic production and imports into the UK relative to demand over the period of 1999 – 2012.



5. The UK refining sector has shrunk significantly since the 1970's, largely due to global market pressures and challenges. These are expected to continue going forward.
6. The challenges faced by the UK sector are in common with other European refineries. The crude oil and refined product market is international and competitive and refinery margins are thin. There is increased international competition from the Middle East and Asia (and increasingly the United States as a result of the structural advantages presented by the boom in unconventional oil) and global refining capacity is projected to increase by 7% from 2011 to 2017, with the majority of this coming from China and the Middle East. The complexity and scale of this new refinery capacity is significant, and despite extra freight costs, middle-distillate products (diesel and kerosene) are able to be competitively priced in the UK and EU market. There is also overcapacity in the EU refining sector and projected overcapacity globally placing further pressure on the UK industry.
7. In addition, most of the UK's refineries were built in the 1960's and 70's and so were configured to meet a high market demand for gasoline. Over time, demand has shifted significantly towards middle distillates, and whilst overall demand for refined oil products in the OECD is declining this trend is continuing. As a consequence UK refinery output is out of balance with market demand. In 2012 the UK exported around 27 million tonnes of petroleum products, a third of which was petrol (although the key export market to the US is contracting due to the successful exploitation of US shale reserves and introduction of ethanol blends). However, it is increasingly reliant on importing refined oil products to meet

demand, with significant volumes of diesel road fuel (almost 10 million tonnes) and jet fuel (around 7 million tonnes) imported in 2012. As a consequence the UK was a net exporter of only 1 million tonnes in 2012.

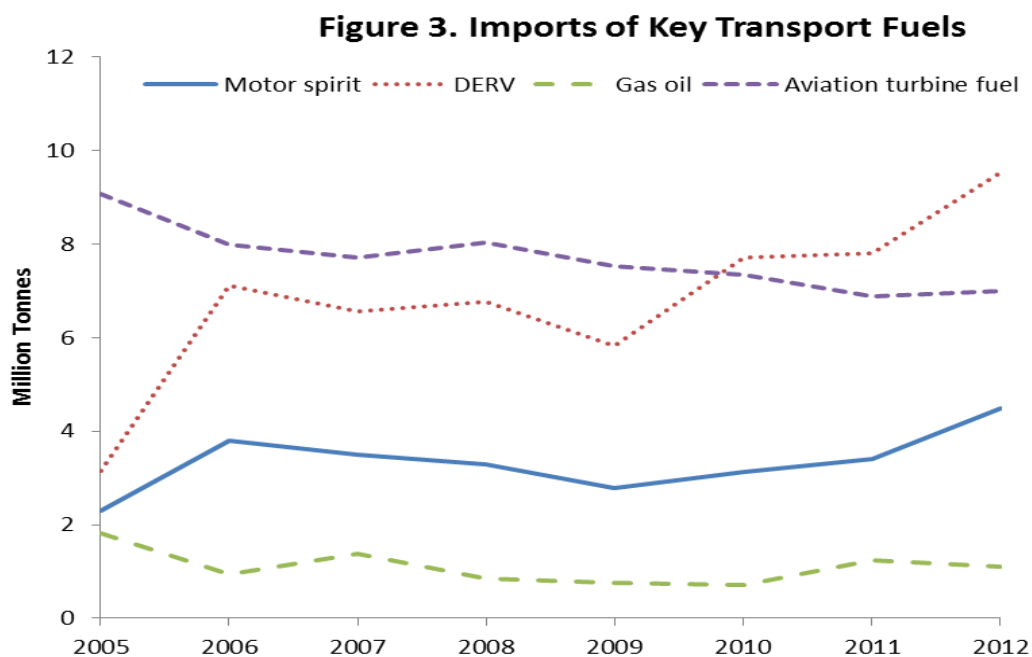
8. Figure 2 below outlines the changing demand for refined transport products over the period of 1999 to 2012.



9. Across the refining sector, capital investments continue to be made to upgrade equipment and optimise performance. Most investment is directed at tightening environmental, health and safety standards and product specifications. With a number of key environmental directives due to be implemented in the UK over the rest of the decade, the sector faces a heavy demand for new capital.

10. These challenges, combined with tough global economic conditions have resulted in the closure of 15 European refineries since 2009, and the International Energy Agency predicts further closures in the future. In the last three years two UK refineries have closed (Petroplus Teeside and Petroplus Coryton), and over the same period all but one of the remaining seven have been either sold or put on the market. There remains a risk of further refinery closures in the UK, and a combination of factors can conspire to mean that even those considered to have clear competitive advantages in the market (such as the former Coryton refinery) are also at risk.

11. At the same time, investment in import capability has increased with the sector growing substantially. There continues to be significant inward investment from this sector, with additional import capacity being added in 2013 onwards. This capability plays an important role in maintaining resilient product supplies to the UK, and supports jobs and contributes to economic development. Figure 3 below shows how imports of key refined transport fuels have increased significantly since 2005.



Review of the role of the UK's refining and fuel import sectors

12. Given the challenges faced by the refining sector, and the continued risk of further closures, the Department of Energy and Climate Change (DECC), in collaboration with other government departments, is working with the downstream oil sector to conduct a review of the role of the UK's refining and Import sectors in the supply of refined oil products into the UK market. Conclusions from the review will be published towards the end of 2013.

13. The review will consider what role the UK oil domestic production and imported products should play in meeting our needs for refined oil products over the next few decades as we transition to a low carbon economy. It will seek to define the extent to which a domestic refining base contributes to resilience and security of product supply throughout the downstream oil supply chain and the impact of increased levels of imports into the UK. It will look at the economic, social and environmental benefits of retaining a level of refining

capacity within the UK and the capacity to grow our import base. There will be a particular focus on the impact that the regulatory and policy framework has on both sectors, considering the balance of regulatory obligations between the two sectors and the risk of undermining policy goals (e.g. in environmental protection) by importing from less regulated countries. Finally, the review will identify action deemed as appropriate to incentivise investment and improve competitiveness to improve UK supply resilience.

Call for Evidence

14. Building a clear and robust evidence base is critical and will enable us to address the challenging questions posed by this Review.

15. Previously, DECC commissioned a number of studies which assessed the role of the sector:

- *Developments in the international downstream oil markets and their drivers: Implications for the UK refining sector* - 2011 Purvin & Gertz (PGI):
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69763/2259-int-downstream-oil-mkts-drivers.pdf)
- *Downstream oil - short term resilience and longer term security of supply* - 2010 Deloitte LLP:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69758/1779-downstream-oil-short-term-resilience.pdf)
- *UK downstream oil infrastructure: final report* - 2009 Wood Mackenzie:
<https://www.gov.uk/government/publications/uk-downstream-oil-infrastructure-final-report-by-wood-mackenzie>)

16. In addition, DECC recently worked in collaboration with the UK Petroleum Industry Association (UKPIA) to agree terms of reference for a study to assess “The role and future of the UK refining sector in the supply of petroleum products and its value to the UK economy”. On 10th May 2013 this study, undertaken by independent consultants PGI, was sponsored and published by UKPIA.

<http://www.ukpia.com/files/pdf/therolefutureoftheukrefiningsector.pdf>

17. The DECC Review will draw from these studies as appropriate. It will also look more widely and in building our evidence base, we are now seeking direct input from a wide range of stakeholders who have both a direct and indirect interest in the downstream oil sector.

18. Also the Energy and Climate Change Select Committee has launched an inquiry into the UK Refining Sector (<http://www.parliament.uk/business/committees/committees-a-z/commons-select/energy-and-climate-change-committee/inquiries/uk-oil-refining/>). DECC will have regard to all published evidence to the Select Committee.

Responses to the Call for Evidence

19. We are seeking input from across the Downstream Oil Sector and from wider stakeholders on this issues raised in this document. Accordingly, we have set out a number of questions (from page 9, onwards), which we would be grateful for your input. In formulating your answers you may wish to refer to the studies outlined above.

20. It would be most useful if you could use the question proforma when responding (<https://www.gov.uk/government/consultations/call-for-evidence-role-of-uk-refining-and-fuel-import-sectors>) and e-mail responses to: deccdownstreamoilteam@decc.gsi.gov.uk.

21. Alternatively, if you would prefer to post your responses, please send to:

Downstream Oil Team,
Energy Resilience,
Department of Energy and Climate Change,
Room 3/E, 3 Whitehall Place,
London, SW1A 2AW.

22. The deadline for responses is Monday 15th July 2013.

23. Please send enquiries to deccdownstreamoilteam@decc.gsi.gov.uk or write to the above address.

Confidentiality and data protection:

24. Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

25. If you want information that you provide to be treated as confidential please say so clearly in writing when you send your response to the consultation. It would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive

a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

26. We will summarise responses and publish conclusions from the review towards the end of 2013. This summary will include a list of names or organisations that responded to the Call for Evidence but not people's personal names, addresses or other contact details.

General Information

27. Territorial extent: This Call for Evidence covers the United Kingdom

28. Additional copies: You may make copies of this document without seeking permission.

29. Other versions of the document in Braille, large print or audio-cassette are available on request. This includes a Welsh version. Please contact us using the above details to request alternative versions.

Call for evidence: Questions

When responding please provide answers that are as specific and evidence-based as possible, providing data and references to the extent possible.

Q1. Please indicate in which capacity you are responding to this questionnaire; for example as a refiner, importer, wholesaler, retailer, a related industry, as a trade body, union or other independent party (indicating all those which apply).

Understanding the UK national requirement for a resilient supply system:

Q2. There is uncertainty about future likely demand for petroleum products out to 2050 and beyond. Several forecasts for the likely UK refined product demand have been made by different stakeholders, for example independent consultants, and business organisations working in the sector.

How do you see the total UK and EU refined product demand changing over the next 20-50 years, and what product mix is likely to be required? What are the factors influencing this?

Q3. The UK's Energy Security Strategy (with a primary focus on electricity - <https://www.gov.uk/government/publications/energy-security-strategy>) sets out that there are three pillars to delivering security of supply:

- Capacity (ability to respond to demand)
- Reliability (limited downtime or disruption)
- Diversity (availability of alternative types of supply and types of distribution)

Refined product is supplied into the UK market by domestic refineries and import terminals. In overall terms, how would you assess both supply routes in terms of capacity, reliability and diversity?

If appropriate (and to help put your answer into context) - please describe briefly any infrastructure assets that you manage or rely on, and describe your raw material suppliers;

Q4. With respect to your answer to the previous question (Q3): Are there any other considerations that need to be taken into account when making an appraisal of the UK refined product supply chain, from a security of supply and resilience perspective?

Existing Downstream Oil Industry infrastructure and its contribution:

In 2012, supply of product into the UK market via domestic production and imports was as follows:

	Production	Imports
Motor Spirit	66%	34%
Gas Diesel Oil	60%	40%
Aviation Turbine Fuel	37%	63%
Fuel Oils	59%	41%
Petroleum Gases	75%	5%
Burning Oil	80%	20%
Other products	61%	39%

Q5. With respect to the different types of refined product; most importantly Diesel, Jet, Petrol and Heating Oil, what are the most likely **short-term** disruption events that you are concerned about; and which local UK supply envelopes are likely to be affected by these events?

Q6. Taking a **medium to longer term** view, from your perspective which of the supply routes (domestic refineries or import terminals) offers greater resilience to supply disruptions and why?

Q7. From the end user perspective, what approximate split between domestically refined product and imported product do you think would be most resilient? And what are the fundamental differences between these two sources of supply which lead you to this conclusion?

Q8. If you have stated a view on the balance between imports and domestically refined product, what are the benefits and the risks of the approach you propose in delivering?

- a) Secure supply (with good capacity, reliability, diversity and any other key attributes);
- b) Resilience to international supply disruptions (such as extreme weather, shipping problems, major accidents, or natural disasters)
- c) Impact on consumers and product pricing, and
- d) Environment - in relation local air quality, greenhouse gases and other local environmental considerations

Q9. In your view, which geographical regions of the UK would be most affected by a refinery or import terminal closure in terms of:

- a) Disruption to supply?
- b) Jobs and skills?
- c) Adverse impact on associated industries?

Q10. What are the direct and indirect economic (for example tax and wealth) and social benefits (for example jobs and skill development opportunities) derived from the areas of the UK downstream sector with which you are familiar?

Q11. In the context of an uncompetitive **UK Refining base** which may not attract necessary investment, what factors pose the greatest challenge, how will they most likely impact the refining sector, and what are the likely consequences for the UK?

Q12. In the context of **Import infrastructure**, what factors pose the greatest challenge to operating companies making investments and what are the likely consequences?

Q13. If not covered in your answer to the last questions (Q11 & Q12): what in your view is the impact of current UK and EU regulations and policies on the sector?

Q14. What is the cost impact of current and forthcoming Regulations (in terms of Capex and Opex)?

Future development of the UK Downstream Oil Industry

Q15. How do you see the UK downstream oil sector evolving over the next 20 - 30 years, and what is your rationale for this? And specifically: will the downstream sector develop sufficiently fast enough and in a robust enough fashion to address the future refined product needs out to 2050?

Q16. With respect to your answer to the last question (Q15): What are the risks and benefits of the future that you foresee?

Q17. In your view (if not already covered in answer to Q11) how successful will the UK **Refineries** be in responding to future demands, and what are the uncertainties and constraints that will affect their ability to respond successfully?

Q18. In your view (if not already covered in answer to Q12) how successful will the UK **Import terminals** be in responding to future demands, and what are the uncertainties and constraints that will affect their ability to respond successfully?

Other potential steps to address the UK Downstream Oil future requirements

Q19. At the UK industry-wide level: do any factors restrict access to the UK refined product markets e.g. access to critical infrastructure such as jetties, the rail network or pipelines? If this is the case then:

- a) what needs to change?
- b) how will your organisation benefit? and,
- c) what are the supply security and resilience benefits?

Q20. What other external factors (if not already covered in answer to Q11) adversely impact the **Refining** sector (e.g. structural advantages elsewhere such as lower staff and energy costs) and how significant a role will these play in determining investment decisions?

Q21. What other external factors (if not already covered in answer to Q12) adversely impact the refined product **Import** sector (e.g. structural disadvantage or lack of certainty) and how significant a role will these play in determining investment decisions?

Q22. What steps could the UK Government take to help create the right conditions to attract continued investment in the UK refining and importing sectors?

Q23. Is there anything else not covered in your answers to previous questions that you would like to add?

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