

**Implementation of the Sulphur Directive
– industry preparations**

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Transport Analysis

Address: Torsgatan 30

SE-113 21 Stockholm

Phone: 010 414 42 00

Fax: 010 414 42 10

E-mail: trafikanalys@trafa.se

Webaddress: www.trafa.se

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Summary

The EU Sulphur Directive is being implemented in 2015 to reduce the harmful impact of sulphur emissions on human health and on the environment. The Directive points out the risks associated with a transition from transport by sea to transport by road, which may lead to more traffic congestion and increased climate-warming emissions. Higher costs for shipping lines operating in Sulphur Emission Control Areas (SECAs) and the reduced competitiveness of transport buyers using maritime transport in SECAs have also been identified as potential risks.

Transport Analysis commissioned over 30 interviews with transport buyers and with representatives of the energy and shipping sectors. The aim was to examine how these industries are adapting to the Directive, as well as any changes in transport patterns directly associated with the Directive's implementation.

The interview study demonstrates that, overall, respondents have made few changes. The energy sector does not appear to have adjusted its fuel production to accommodate increased demand for low-sulphur marine fuel. The shipping lines report that they are increasing their efficiency, including by sailing their vessels more slowly, but they have done little to cut back on routes or invest in new technology. Transport buyers have in some cases switched to transporting goods by land rather than sea, but most indicate that they have not modified their transport arrangements. The many uncertainties about fuel prices, the maturity of new technologies, and future regulations, even as the price of low-sulphur fuels has fallen lower than expected, have led most shipping lines to postpone new investments. However, as of February 2015, more shipping lines had begun to order scrubbers, i.e., devices used to remove sulphur from fuel.

Competitive disadvantage from higher shipping costs has grown, favouring buyers of sea transport that does not cross SECAs. Even as the costs of water and land transport in Europe have fallen due to falling fuel prices, the cost of sea transport in SECAs has risen 5–10%, according to interviewees. This has lowered the competitiveness of companies buying shipping services in SECAs versus that of companies with production operations on the European continent that do not use sea transport traversing SECAs.

The transport buyers particularly affected by the Sulphur Directive are industries that ship large amounts of heavy goods over long distances within SECAs and that have large import and export shares. There is a risk of costs rising even more for transport buyers whose shipping costs account for a relatively large share of their goods value (i.e., over 10%) and that have few alternatives to transporting their goods by sea.

Although there are many indications that the new sulphur regulations are largely being complied with, the extensive relative price difference between low-sulphur fuels and heavy fuel oil offers an incentive to violate the sulphur regulations.

Measurements of sulphur emissions made in Sweden since 1 January 2015 register emissions reductions of up to 90%,¹ indicating that the EU Directive has had the intended effect. However, emissions measurements over a longer period of time will be needed to demonstrate any lasting effects.

¹ Beecken, Jörg. 2015. *Remote Measurements of Gas and Particulate Matter Emissions from Individual Ships*. Chalmers University of Technology, Göteborg, Sweden.



Transport Analysis is a Swedish agency for transport policy analysis. We analyse and evaluate proposed and implemented measures within the sphere of transport policy. We are also responsible for official statistics in the transport and communication sectors. Transport Analysis was established in April 2010 with its head office in Stockholm and a branch office in Östersund.