

IMO 2020 & Alternative Fuels The view of wider Society

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The Global Sulphur Cap

- IMO's most tangible environmental achievement
- 15 largest ships = same sulphur pollution as all world's cars ([Economist 2017](#))
- historic overnight transition for any industry
- Came late but still very significant global achievement
- ~ 2.6% global decrease in PM_{2.5} cardiovascular/lung cancer deaths (Corbett/Winebrake et al in Nature)
- ~3.6% global reduction in childhood asthma.
- Still leaves ~250k deaths and ~6.4 M childhood asthma cases p.a.
- So still more to do globally & in Europe

Effective and successful implementation critical

- Ban on carriage of non compliant fuel from March 2020 significant
- Ensure compliance and level playing field to instil industry and member state confidence that further progress can be made.
- We wont comment on specific operational, supply, compliance issues – for industry/MS
- Important now the IMO/ member states continue momentum.
- In China, Japan, ROK, Singapore, Australia etc through ECAs and eventually green lanes along major shipping routes.
- SECAS/NECAs and NOx regulations for existing ships throughout EU seas and Mediterranean
- Further steps below 0.5% globally

Scrubbers

- They are an obvious anomaly
- Ban open loop scrubbers –inevitable.
- Can protect initial investments
- HFO is not just sulphur but spill risk, local air quality.
- Urge IMO to agree HFO ban at next PPR.
- This is effective switch to distillates so also initial BC step.
- Scrubbers don't help BC/PM either – IVL, DNV
- CO2 penalty; fuel burn and sea water buffering of acid wash-water
- Clock ticking on ship fuels – and in Arctic
- too great IMO reliance on flexibility and goal-based approach
- Lessons to be learned here – re IMO approach to GHG

Zero air pollution. Zero GHG

- Start with zero emissions at ports; green shoreside power
- = zero NOx. Zero GHG.
- Local regulation needed urgently – Carnival impacts on ports
- Progressive electrification/hybridisation f- 12 nm, EEZ
- Good for both GHG and air pollution
- NOX in European seas. Big challenge.
- Where are we on global GHG issues?
- Is IMO losing the plot?
- Ship speed reduction = win-win. GHG & air pollution

Biofuels

- Alternative fuels - will be discussed later. But!
- Biofuel road fuel policy disaster in Europe. 10 years+ to fix?
- Meantime the bad biofuels genie is out of the bottle.
- Critical issues for IMO in the future are;
- Sustainability criteria and biomass sources
- Supply - wastes and residues. Not nearly enough even for aviation
- Verification and enforcement!