



# **6th Bunkernet Bunker Conference**

## **Industry Trends and 2020**

**Robin Meech**  
**Marine and Energy Consulting Limited**

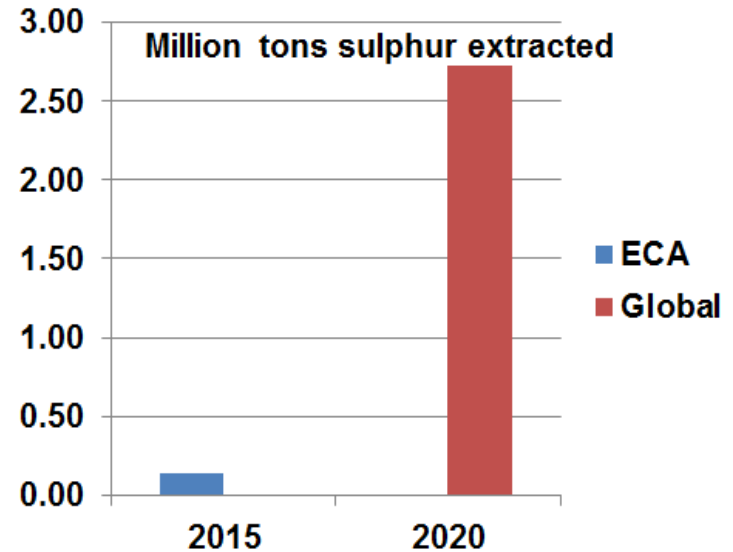
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6 April 2017

# Trends are overshadowed by 2020

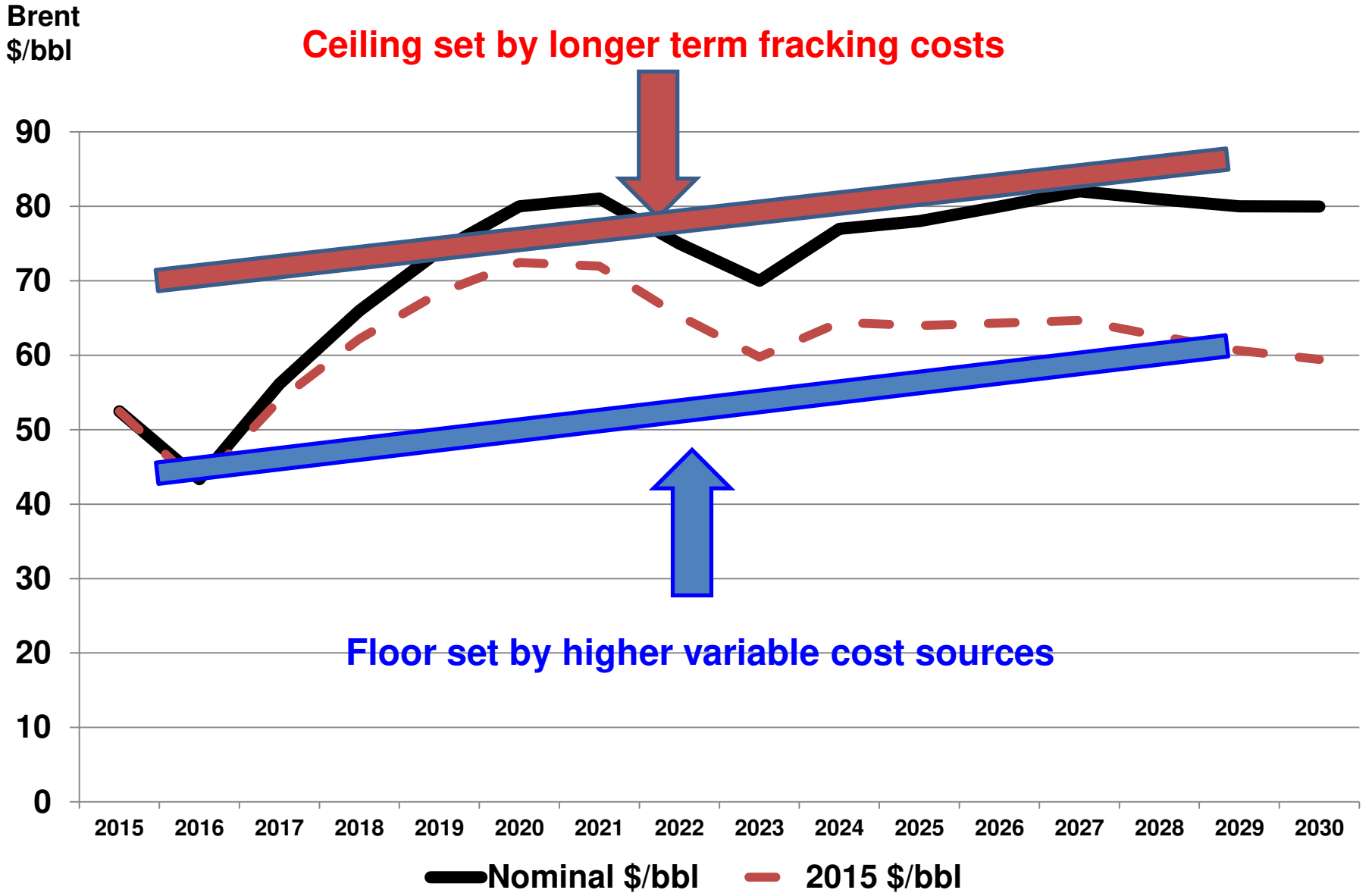
- Bunker prices are likely to remain stable until 2020
- Most decisions makers are still uncertain and are putting decisions off
- Uncertainties include
  - Will there be sufficient 0.50% fuels available in 2020 **No**
  - Will the transition to 0.50% fuels be planned **Hopefully**
  - Will there be strong global enforcement and hence compliance **No**
  - Will ship operators invest in scrubbers **Increasingly**
  - Will LNG bunkers be a significant factor over the next five years **No**

# The 2020 transition presents a mammoth problem

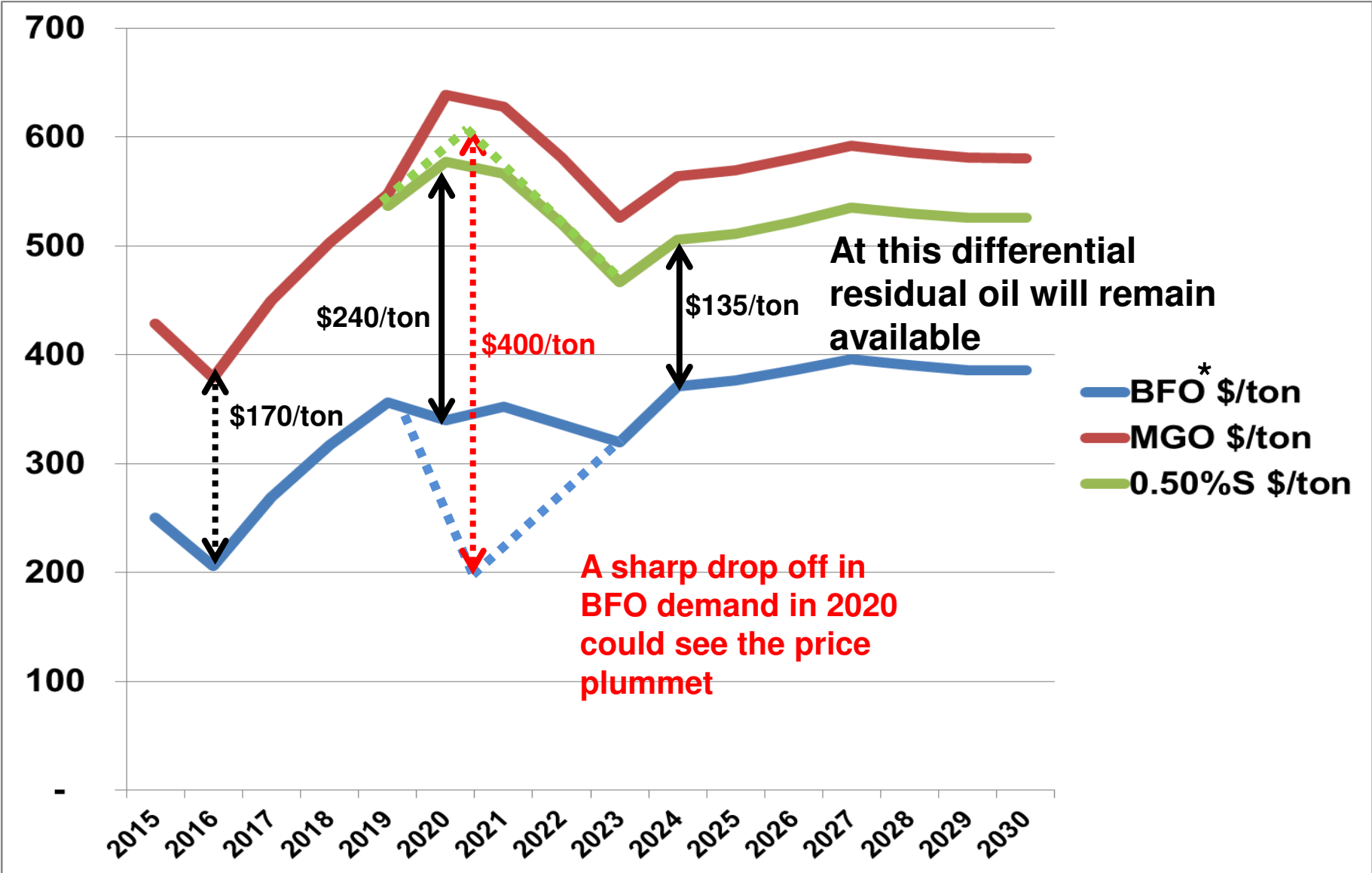
- ECA change was 16 million tons from 1.00% to 0.10%  
= 0.14 million tons sulphur extracted
- Global Cap will be 130 million tons from 2.6% to 0.50%  
= 2.7 million tons
- Over 18 times more sulphur to be extracted
- Over night and globally
- There will be a wide range of 0.5% S blends
- Which are expected to present problems
  - Compatibility
  - Stability
  - Pour point issues
  - ISO grading
- None have been blended commercially yet
- No doubt a steep rise in fuel testing



# Oil prices may well stay relatively stable in current \$ terms



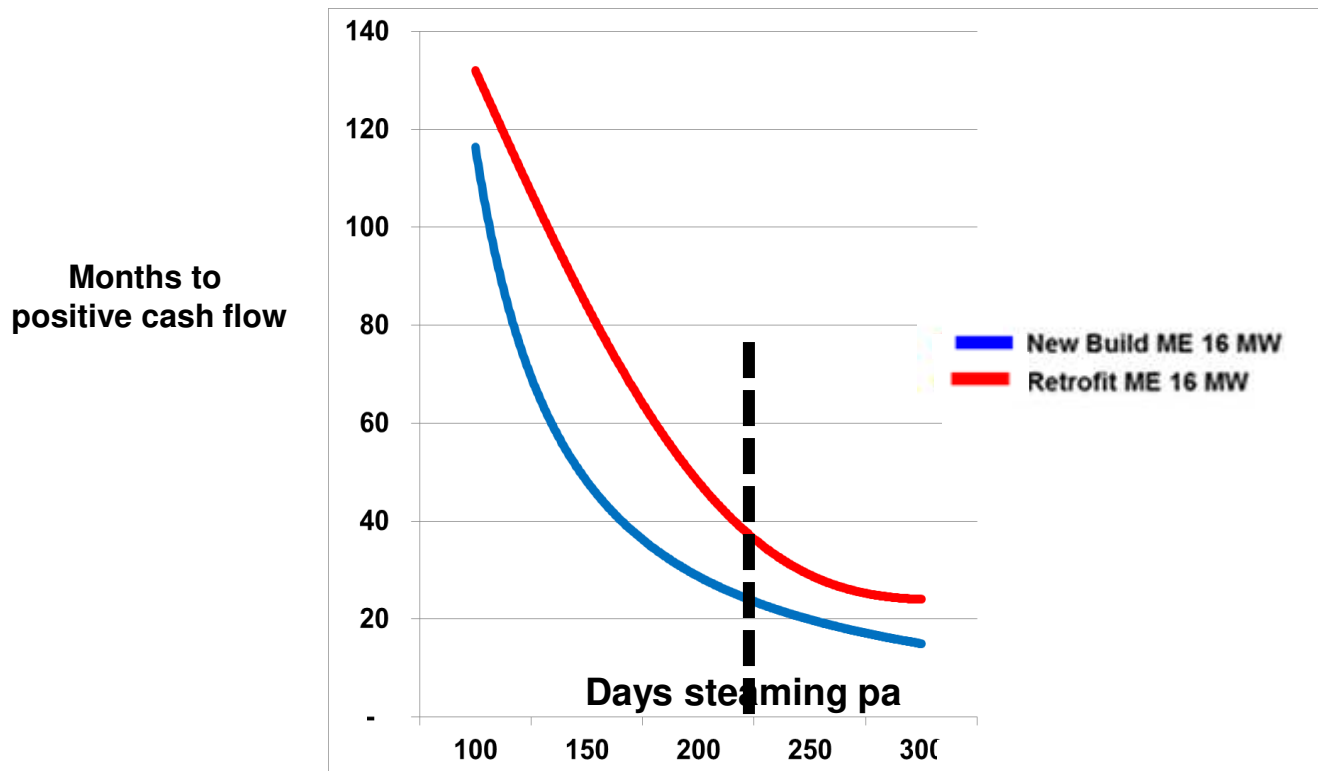
# Bunker price differentials expected to deviate after 2020



\* High Sulphur Bunker Fuel Oil

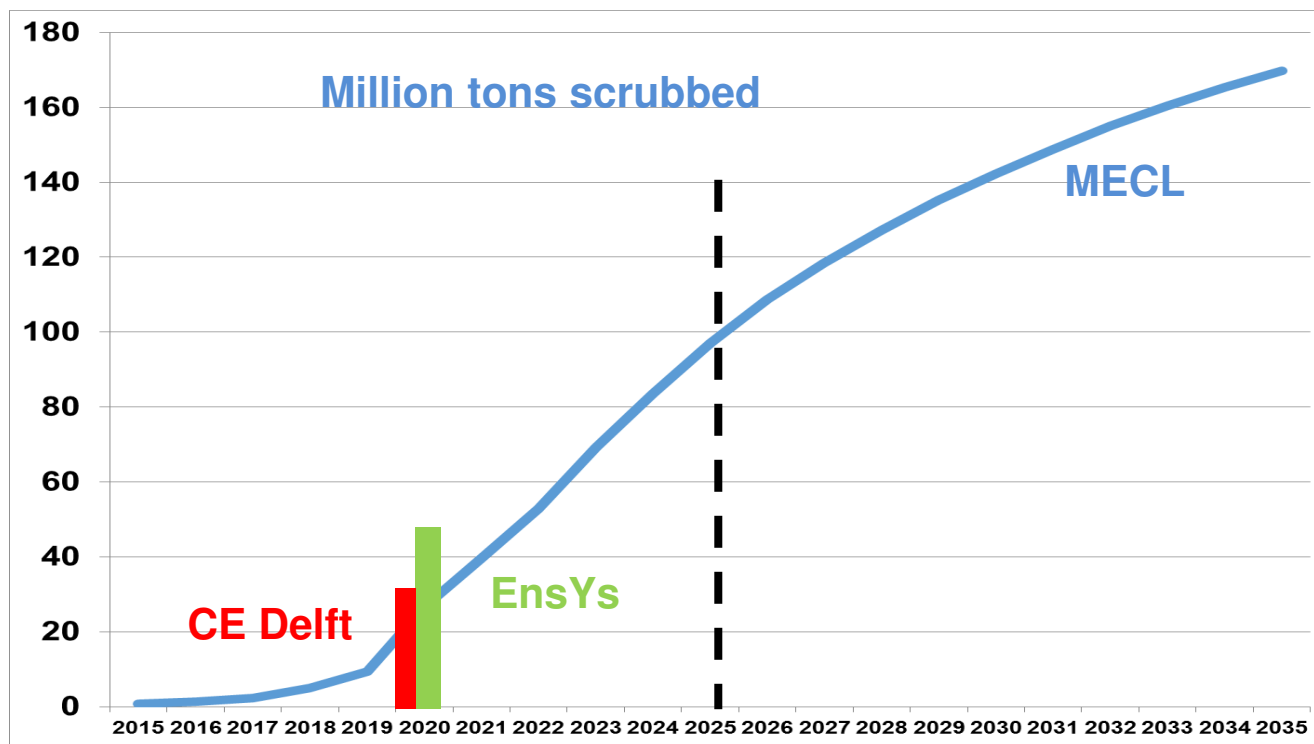
# Abatement is financially attractive but has some drawbacks

- Investing in scrubbing after 2020 will provide positive cash flow in less than
  - 2 years for a new build
  - 3 years for a retrofit
- Financing and hedging the sulphur differential
  - Greatly improves cash flow
  - Reduce risks



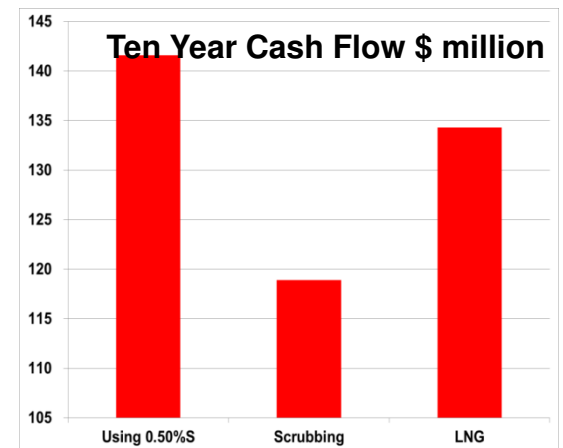
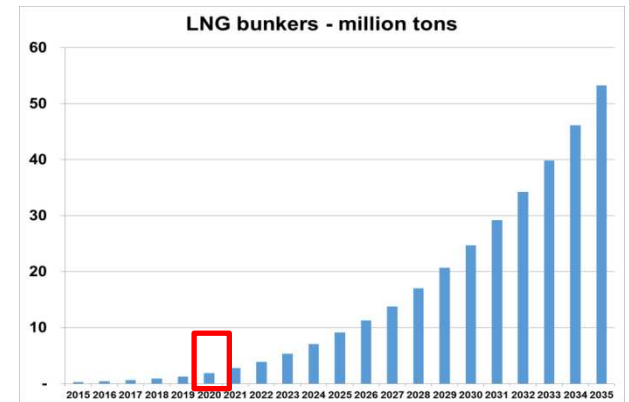
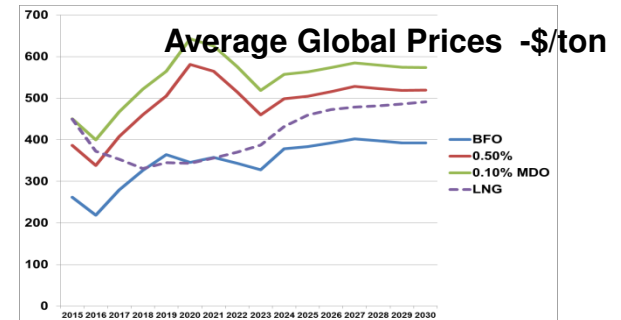
# Take up of abatement will depend on owners decisions but unlikely to be inhibited by construction capacity

Estimates for year end	2016	2020	2020	2021	2030
Source	Various	CE Delft	EnsYs	MECL*	MECL
Number of ships with scrubbers	460	3,800	4,600	3,200	22,000
Million tons scrubbed in year	4	36	48	26	142



# Demand for LNG will be accelerated from lower future prices

- Lower prices make LNG bunkers more competitive
- LNG not significant before 2025
- But scrubbing still lowest cost compliance route
- De-carbonisation will eventually increase consumption of renewables

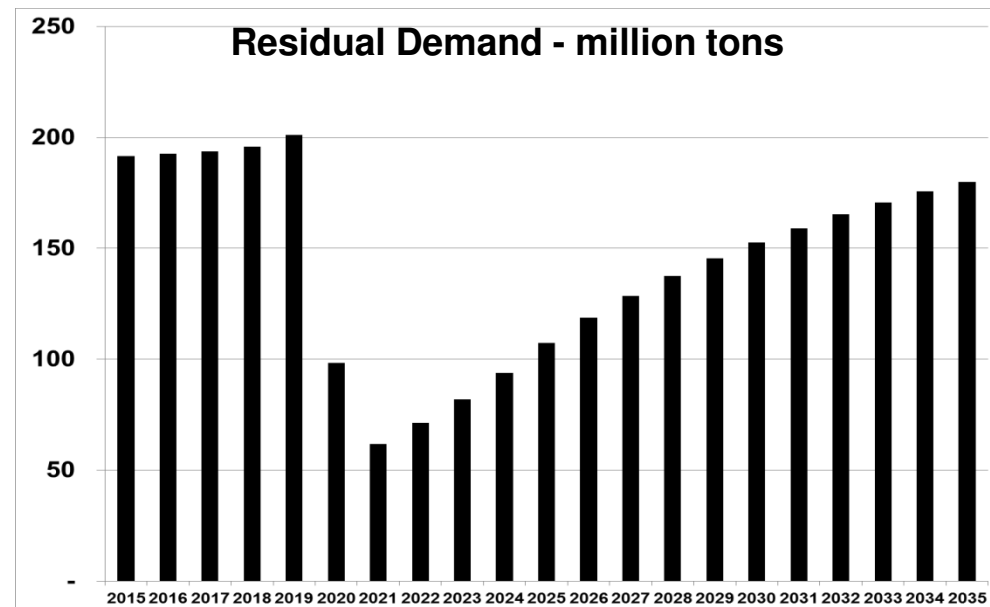




# Propensity of refiners to meet the 0.50% demand muted

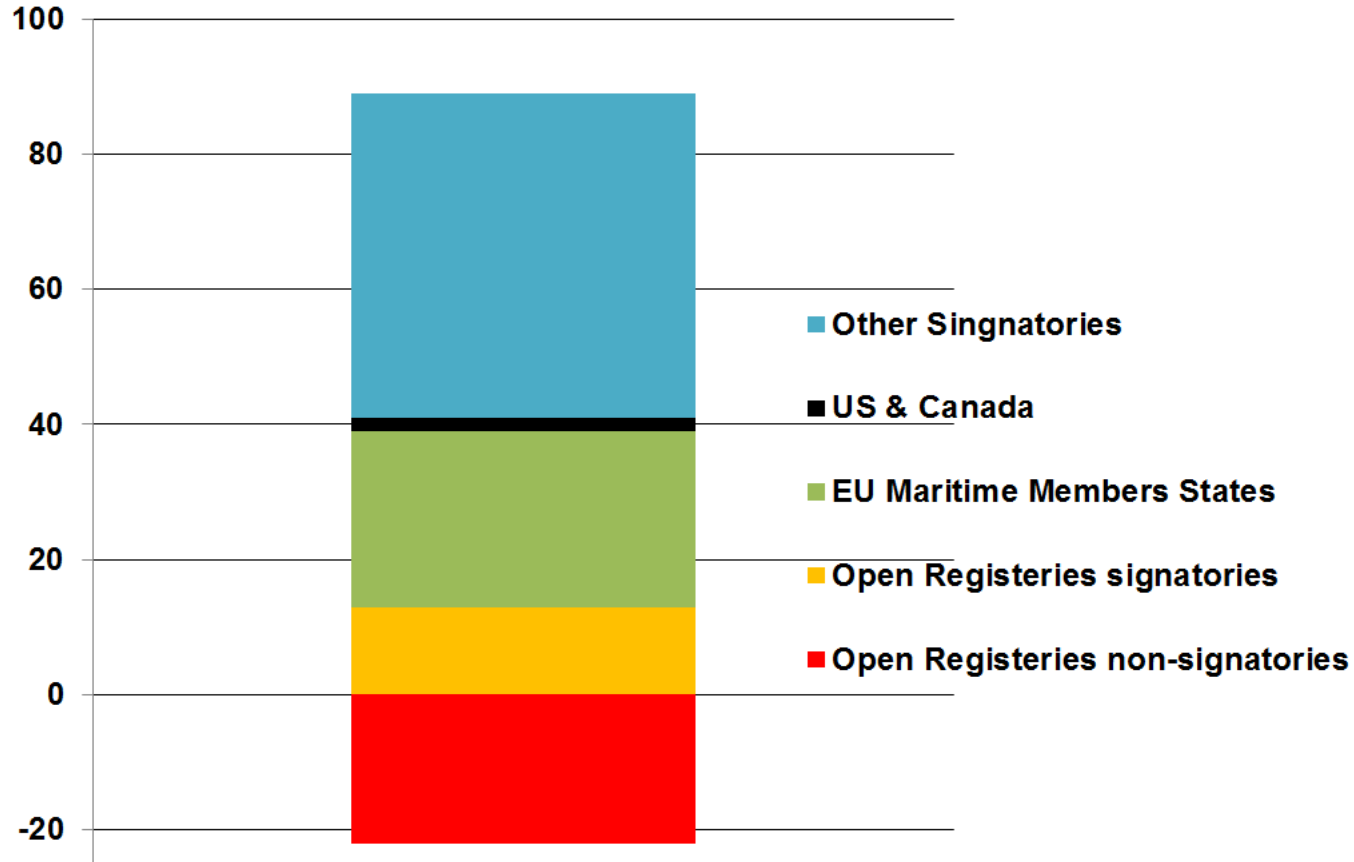
Changeover in 2020 will be less dramatic than modelled in IMO study

- Relatively low compliance in earlier years reducing demand for 0.50% fuels
- Introduction of some proposals to smooth the transition might be
  - Owners with scrubbers on order might to be permitted to use 3.50% bunkers until installation
  - Adopting a standardised FO Non-Availability Report (FONAR) may reduce demand pressure on 0.50% initially
  - Initially enforcement in territorial waters only
  - Reduced enforcement in 2020
- Fuel oil demand may well recover dissuading refiners from investing \$ billions in fuel oil destruction
- Where will the residual surplus go?
  - Increased conversion capacity
  - China teapot refineries
  - Powergen in Russia, China, Africa or the Middle East
- There are significant implications for lube manufactures



# There are 88 signatories to Annex VI

- **And 35 Open Registries - ITF\***
  - **Of which 13 are signatories to Annex VI and 22 are not**
  - **Open Registries account for 70% of bunker purchases**



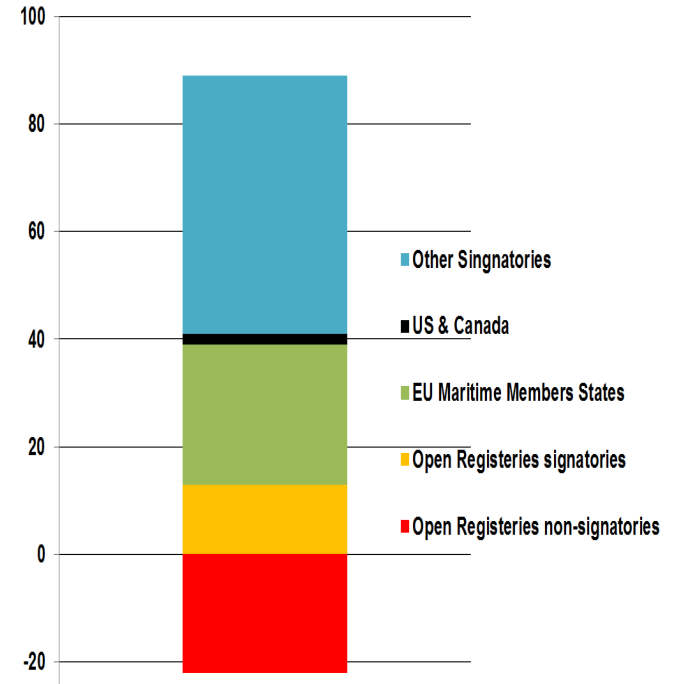
**This leaves scope for re-flagging reducing compliance**

# **Enforcement of the global cap may prove complicated without new regulations and resources**

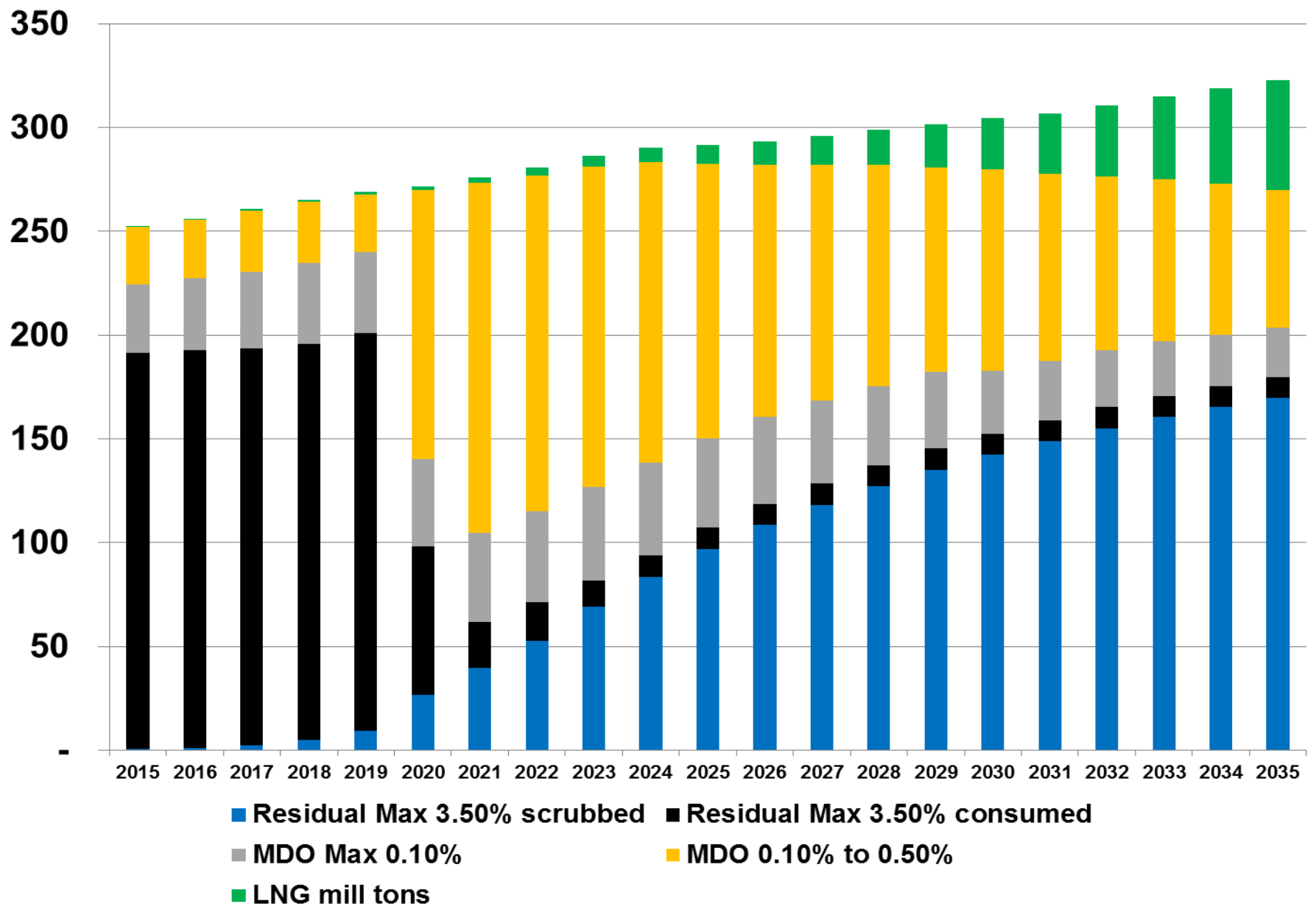
- **Outside territorial waters and ECA the compliance agency is the vessel's flag state**
- **There are serious questions as to how diligent certain flag states will be**
- **States that are not signatories to Annex VI have no obligation to enforce the global cap**
- **There are 172 states within IMO hence there are 84 non signatory states**
- **However, over 90% of global trade passes through ports in the 87 signatory states**
- **To date 28 states (26 in the EU , USA and Canada) have significantly enforced Annex VI**
- **This means 60 states require port state enforcement resources and to train officers**

# Routes to improved enforcement are being sought

- **Make it illegal to leave port with insufficient bunkers to reach next designated port compliantly**
  - This requires a change to Annex VI
  - Enforcement would be under local jurisdiction
  - Can accommodate scrubbers
  - Still requires the state to enforce
- **Ban the carriage of higher sulphur fuels in bunker tanks unless the vessel has approved abatement system**
- **Other approaches are under review**
  - Discussion at IMO at PPR
- **IBIA with others are seeking to**
  - Smooth the transition to 0.50% limit
  - Improve compliance
  - Clean up the environment

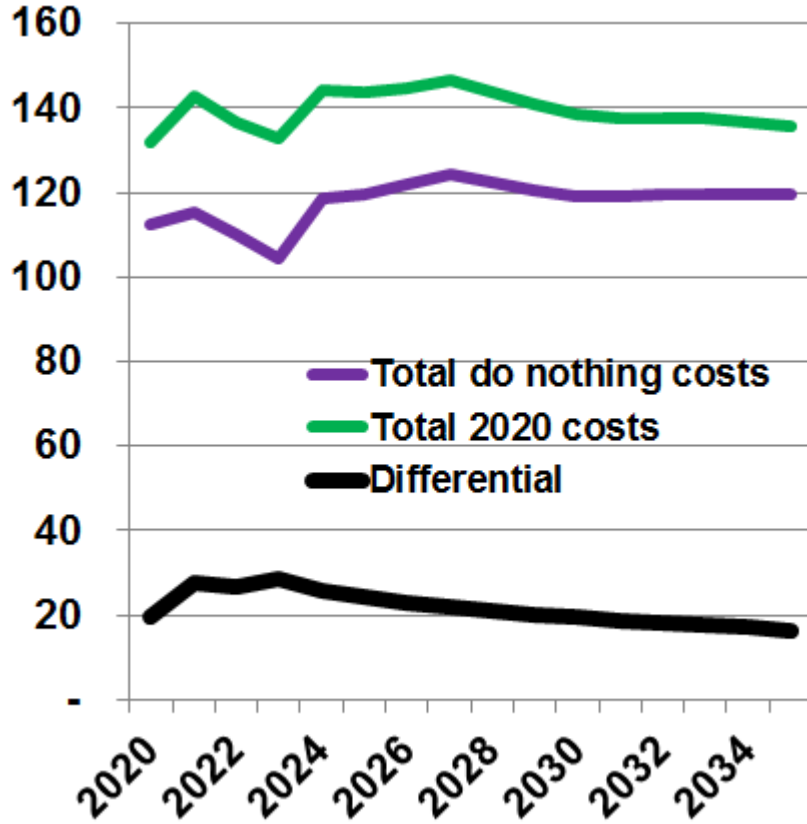


# Demand scenarios – million tons



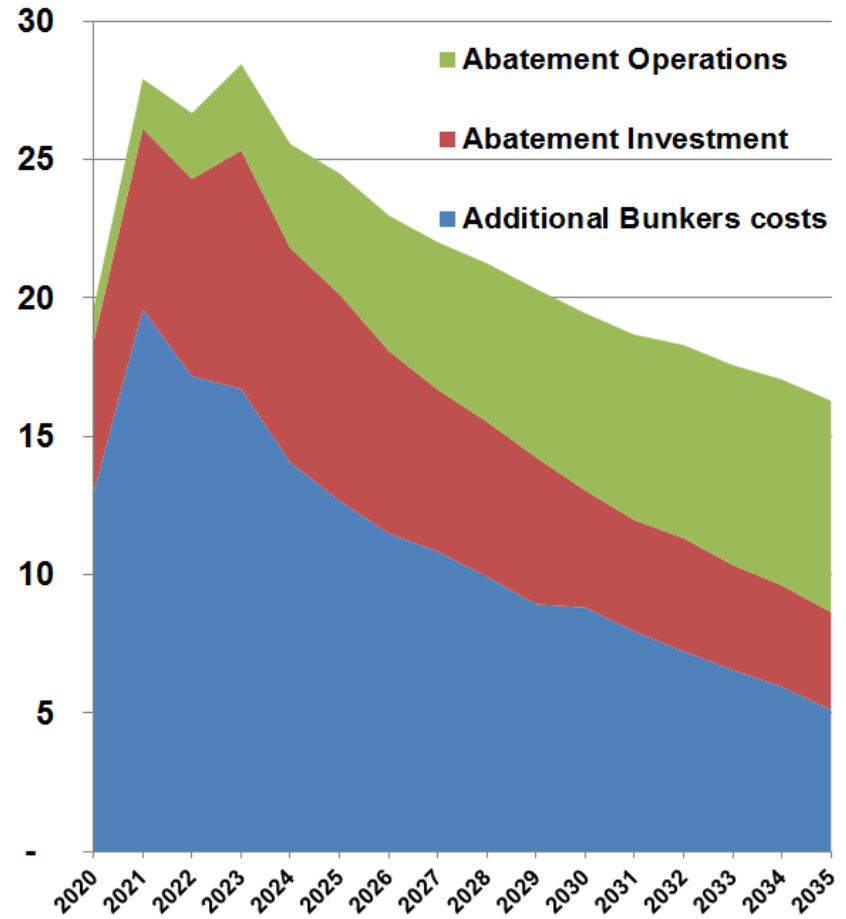
# Over the period 2020 to 2035

\$ billion **20% increase in shippers' costs**



**Average freights will increase by 12% assuming bunkers represent 60% of cost**

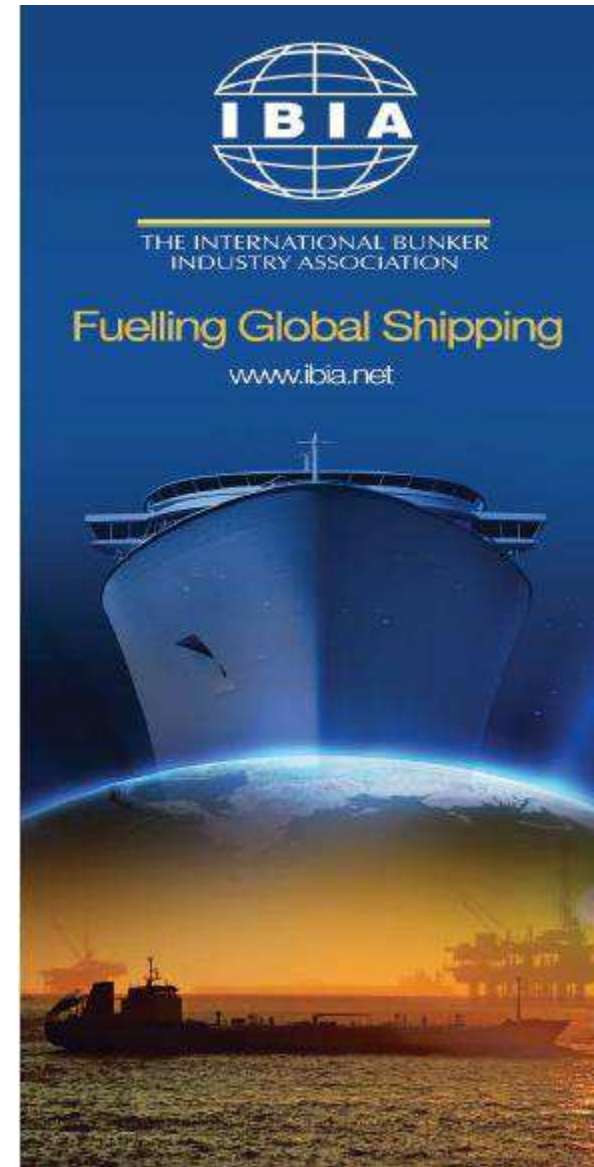
**Additional costs to shippers will average \$22 billion pa**



**The big question is how will ship operators recover these costs?**

# IBIA is very active

- Involved in committees and correspondence groups relating to bunkers
- Has a member of its staff attending all relevant IMO meetings.
- We report back to our members on all of the IMO discussions and conclusions
- We encourage members to interact with their national delegations
- Inclusion of member's ideas and concepts through the IBIA Working Groups
- Port Charter
  - Unified procedures
  - Improved enforcement



**Providing a balanced voice for the membership at IMO**

# In summary

- **Scrubbing appears to presents the lowest cost route to compliance**
  - From “cost saving” to “saving the business”
- **Great variation of 0.50% S blends will present challenges**
- **Resurgence of BFO demand could mute refinery investment in residual destruction**
  - Lack of avails of 0.50% S bunkers immediately after 2020
  - Increased use of 0.10% S fuels
- **What should we be looking out for**
  - A lead from IMO on enforcement and transition planning
  - Take up of scrubbing
  - Refiners announcement of their capability to produce 0.50% bunkers
- **If a practical approach is not adopted to the transition non-compliance may become the norm**
- **Compliance must be clarified and strengthened**
  - Amend Annex VI to give PSC increased powers
  - Improved port systems

**The transition may take more than four years and will be very costly**





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## Industry Trends and 2020

**Robin Meech**  
**Marine and Energy Consulting Limited**

LIMASOL  
6 April 2017

**Marine and Energy Consulting Limited (MECL) was established 15 years ago**

## Consulting Services

### Ship Owners

- **Fuel Strategies**
- **Scrubber Selection**
- **Compliance Options**
- **Technology investments**

### Bunker Suppliers

- **Supply Strategies**
- **Investment Evaluation**
- **Strategic Development**
- **Organisation**

### Investors

- **Vessels**
- **Terminals**
- **Bunker Suppliers**
- **Finance**



- **Bunker for Managers**
- **Blending**
- **Claims**

## Abatement Technology and Finance Limited

- **Leasing Scrubbers**
- **Hedging Sulphur Premium**

### Publishing

“Outlook for Marine Bunkers and Fuel Oil to 2035”

“Bunkers – An Analysis of the Technical and Environmental Issues”