Demand for low-emission fuels in international shipping

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2023 – Public (IMO) and private stated ambitions align close to 1.5
How competitive are different low-emission fuels in international shipping?

Technology and fuel cost projections produced in collaboration with LR and GMF/GtZ

MARPOL Annex VI, CII/EEXI, SOx, NOx

CO2 constraints (applied as carbon price)

Builds on work originally published in ISWG GHG 1 - INF.2, Belgium et al. “scientific study on possible reduction targets and their associated pathways”
2030 GHG reduction is primarily about efficiency:

- 20-30% reduction in GHG on 2008
- Potential fuel mix in 2030:
  - 73% increase in tnm 2008-2030 (UNCTAD RMT 2022)

Improvements in efficiency to achieve 1.5-alignment (on 2008)

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<thead>
<tr>
<th>Scenario</th>
<th>At least</th>
<th>Striving for</th>
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<tbody>
<tr>
<td>Biofuel (inc. biogas and methanol)</td>
<td>48</td>
<td>54</td>
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<tr>
<td>LNG</td>
<td>48</td>
<td>55</td>
</tr>
<tr>
<td>RFNBO</td>
<td>43</td>
<td>51</td>
</tr>
<tr>
<td>LSFO/MDO</td>
<td>42</td>
<td>50</td>
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Significant fuel-compatibility retrofitting looks likely, from late 2020’s
IMO regulations will be a key driver of business cases, IMO committed to clarify by end 2025