



Centre for Strategic  
Energy and Resources

# Discussion Points on Paper 3: Techno-economic analysis of long-distance hydrogen pipeline transportation

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# Overall impression

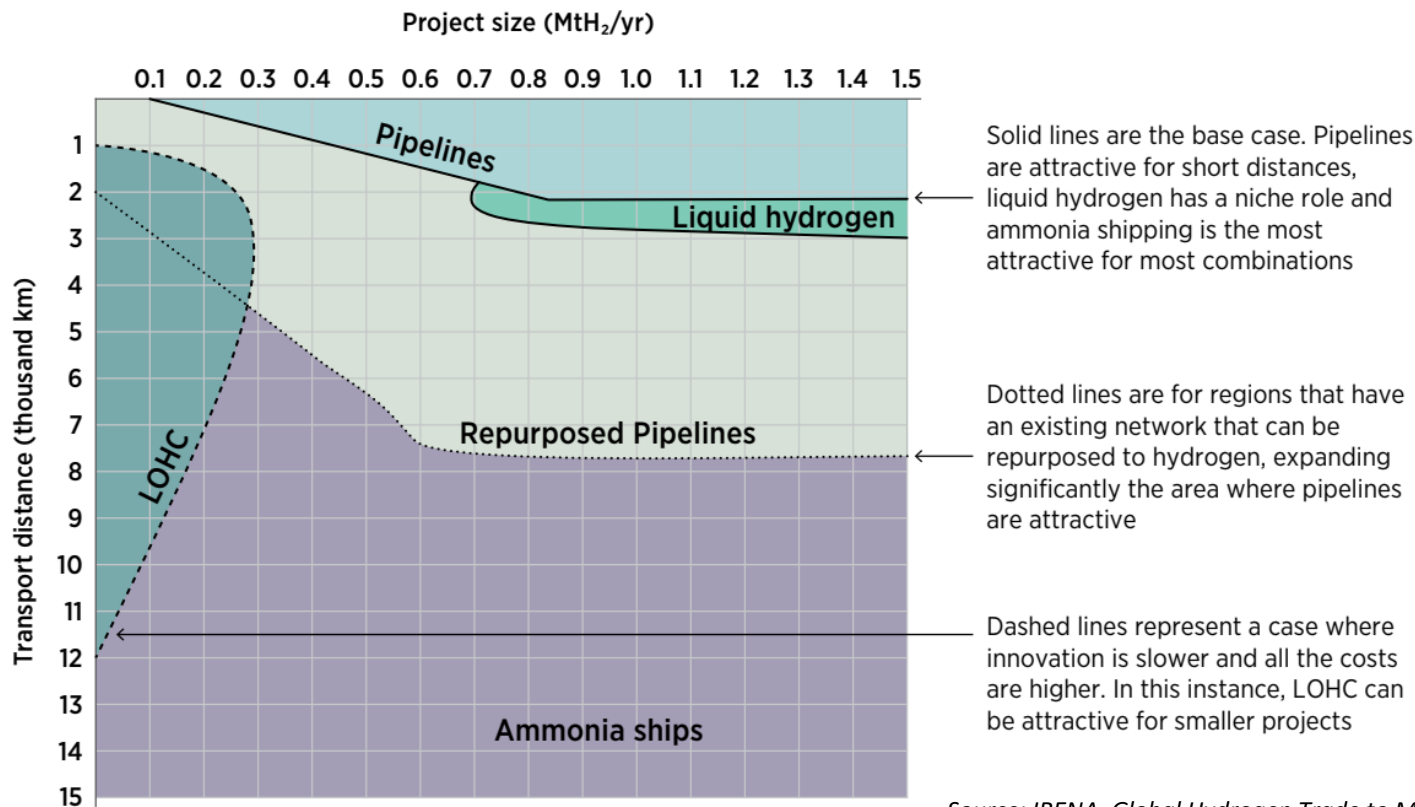
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- A techno-economic assessment of hydrogen transport through pipeline combining both technical analysis and economic assessment
- Strength: methodological presentation
- Weakness: data presentation and assumption

- The mathematical formulations and the overall frameworks are acceptable, but
  - Assumptions and references are primarily PRC-specific – potentially useful for PRC-based projects, but difficult for international benchmarking
- Figure 2 should be given more explanations. Additional information on geography, ambient environment, etc. should be explained.
- Cost formulas seem to suggest an assumption of new-build pipelines. It is good to also consider repurposed existing pipelines (if any).
- Detailed cost data is missing

- The overall cost trends are sensible and generally consistent with what's published by international studies, but
  - The lack of detailed data and assumptions made it difficult to appreciate the calculation results from the models.
- Comparison should also be made with other types of hydrogen carriers, e.g. ammonia and LOHC.

# Most cost-effective hydrogen transport options in 2050 as a function of project size and transport distance



Source: IRENA, *Global Hydrogen Trade to Meet the 1.5°C Climate Goal. Part II: Technology Review of Hydrogen Carriers*



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# Thank you!

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