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LNG : A CLEAN FUEL FOR TRANSPORTATION

Natural gas transportation roundtable

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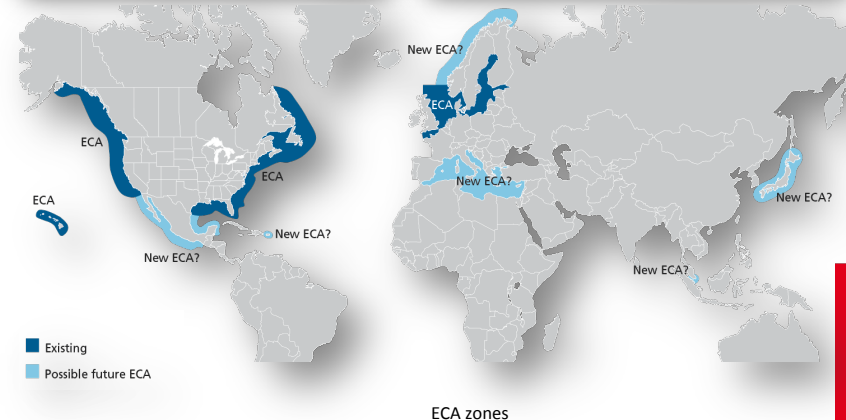
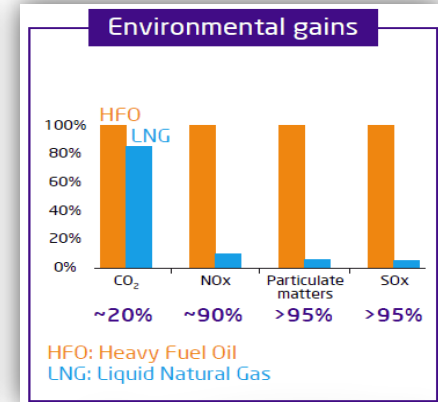
ENGIE



LNG for transport : Customer Benefits & Enablers

- A performing and environmental friendly technology
- Development assistance required in addition of regulations efforts
 - ECA's; Euro VI standard for Trucks; Taxes incentives
- European programs
 - Blue Corridor; LNG Master Plan for Rhine – Main - Danube
- Financial incentives
 - Ex: Implementation of discounts by several ports (according environmental footprint of the ships)
- Enablers

→ Players ready to invest in the infrastructures
→ Customers need to be supported



A new market for ENGIE : LNG as fuel for shipping

■ Bunkering

- A potential up to 20-30 Mtpa worldwide
- Norway, Scandinavia ahead in Europe

■ ENGIE has made a significant step in Europe :

- LNG Bunkering Vessel (LBV) developed by ENGIE, Mitsubishi & NYK
- Compatible with most of European ECA's terminals
- Ship to ship transfer
- Operational end of 2016
- UECC first customer getting ahead on fuel topic

■ Inland shipping

- 80% of inland shipping traffic in the Danube-Rhine-North Sea ports corridor
- Trucks to ship experience in The Netherlands by LNG Solutions



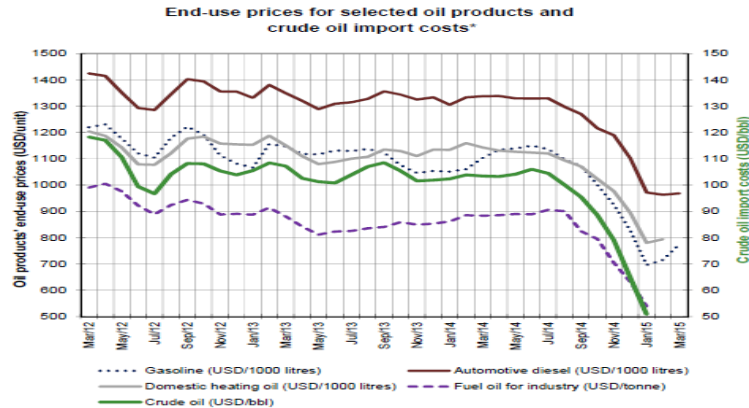
A new market for ENGIE : LNG for road transportation

- A potential up to 30-40 Mtpa worldwide with a significant share for China
- About ~1300 LNG fuelling stations in China, ~70 in US and ~50 in Europe in operation
- Converted trucks is the major part of LNG vehicles currently present in China, US, UK & Spain roads
- The Group ENGIE is developing LNG Fuel supply in Europe
 - LNG Solutions in the Netherlands (2 stations + 4 additional end 2015)
 - GNVert in France (2 Blue Corridor LNG Stations + 2 stations in 2015)



Challenges for LNG

- Competition with alternative solutions



Oil prices drop impeding markets development but how long ?!

- Regulation need to be stabilized and applied
- Price policy to be adapted to each market
- Risk-taking on LNG infrastructure
- Helping customers to invest
- Keeping the same level of safety