



City of Oslo
Port of Oslo



LNG bunkering

Oslo and Norway experience



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Basis for Oslo LNG experience

- Passenger ferries (since 2008)





Basis for Norway LNG experiences

- Base to base:
 - Local passenger/car ferries
 - Oil industry supply network
 - International ro-pax
 - Aquaculture
- Liner services
 - Nor Lines: Cargo
 - Sea-Cargo: Cargo
 - Fjord Line: Ro-pax
 - ???: lo-lo





Bunkering by truck

- «Vi viser til Deres brev av 17.10.2008. Når det gjelder bunkring av Deres fartøyer med LNG på Sørenga, så er det i orden inntil videre. På et senere tidspunkt skal Sørenga byutvikles, men vi vil da finne et annet egnet sted for bunkringen. Skulle det før denne tid oppstå en situasjon hvor bunkring på Sørenga blir vanskelig, vil vi også finne et annet egnet sted. I og med at det bunkres fra bil, så skal ikke dette by på noe stort problem.»
- Since then: bunkering at Sørenga, Lohavn, Filipstad
 - Close to other port operations
 - Close to buildings and vessels
 - Close to shops, flats and people



Do your homework I

- LNG bunkering is «mystic» «witchcraft» for mind and vision.
 - Correct and open process
 - Understand and inform





Do your homework II & III

- What is the motivation for LNG in ports?
 - Cargo (volume)/use
 - Bunkering/service
 - Politics
- Bunkering practices
 - Time
 - Place
 - Operations
 - Facilities
 - Capacity
 - Safety/security



Do your homework IV & V

- Regulations, governance and coordination
 - National
 - International
- Ownership to product and process
 - Upstream or downstream
 - Scale and accountability



Tentative conclusions

- Need for scaling up for maritime use
 - Need for international coordination and standard operating procedures for maritime use
 - Need for operational realism
 - Need for knowledge
 - Need for supportive measures
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- Who owns product?
 - Who owns process?