



World Ports Climate Initiative LNG Fuelled Vessels Working Group





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International Association
of Ports and Harbors

World Ports Climate Initiative

- Raise awareness in the Port Community of need for action
- Initiate studies, strategies and actions to reduce Green House Gas (GHG) emissions and improve air quality
- Provide a platform for the maritime port sector for the exchange of information thereon
- Make available information on the effects of climate change on the maritime port environment and measures for its mitigation





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World Ports Climate Initiative

- Onshore Power Supply
- Environmental Ship Index
- Carbon Foot Printing
- Intermodal Transport (in progress)
- Lease Agreement Template (in progress)
- Cargo Handling Equipment (in progress)

**“A working group on LNG is needed!”
(IAPH meeting, Busan 2011)**

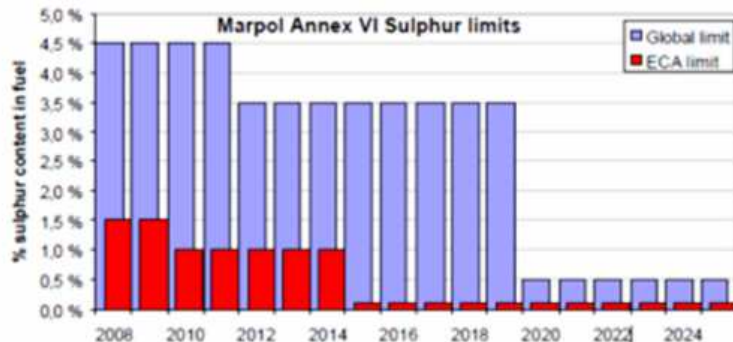




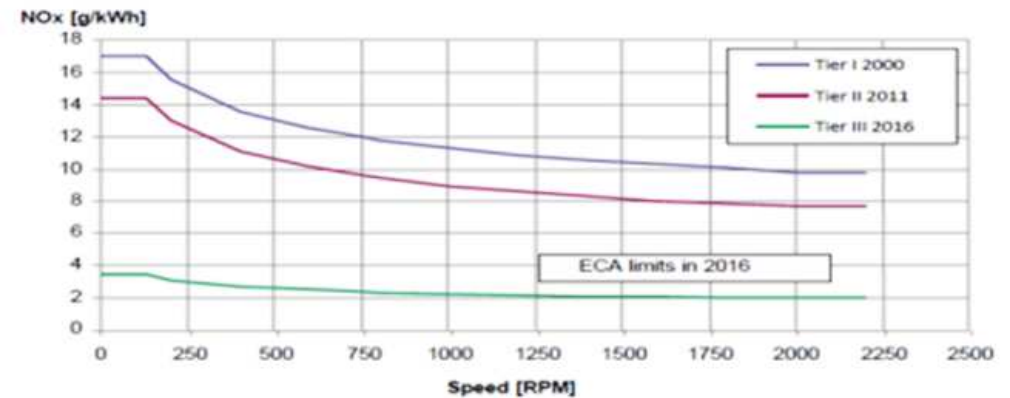
Why a Working Group on LNG?

New regulations

- SO_x, 0.1% by 2015, 0.5% globally by 2020
- NO_x, Tier III limitations for all ships build after January 2016
- European S-Directive and the proposal for Directive Clean Power for Transport



*MARPOL limits
on sulphur content
in marine fuels.*





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Why a Working Group on LNG?

Ecological responsibility

- Green image
- Customer demand
- Commitment to sustainability

New challenges for shipping and for ports





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Why a Working Group on LNG?

LNG as a ship fuel would comply with all new regulations

- NOx: 85-90%
- SOx: 100%
- Soot/particles: 100%

LNG as a ship fuel would comply with all new regulations

- Approx. 30 LNG fuelled vessels in operation
- Boil-off used on LNG carriers





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Why a Working Group on LNG?

- Safety concerns
- LNG bunkering
- LNG infrastructure
- Vessel application
- LNG price



Certain hurdles still need to be taken...

What can be done by ports?



- Global Acceptance of LNG as a Marine Fuel Will Depend on Pricing
- Shipping and Industry Ready to Invest in LNG in Port of Gothenburg
- Port of Hamburg Embraces LNG Fuelled Norwegian Experience
- LNG Port Filling Station a Step Closer in Rotterdam
- Brunsbuttel Ports and Gasnor Agree on Bunkering LNG
- Ports promote LNG as a marine fuel
- Port of Antwerp leads LNG
- Ship-to-ship LNG Bunkering Available in Port of Stockholm
- LNG Facility Planned at BR Port
- EU to Pepper Ports with LNG Bunker Stations
- Ports Partner up to Provide LNG



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Harmonization of the approach of ports towards developing **rules and regulations** regarding LNG as fuel and creating **LNG awareness**.

This is one of the *crucial* factors for the success of LNG as a fuel!





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WPCI LNG Fuelled Vessels Working Group

SWG 1: Bunker checklists and accreditation

- Develop common bunker checklists listing the extra requirements of ports with regards to LNG bunkering operations in a port environment.
 - *Draft truck-to-ship, ship-to-ship and shore-to-ship bunker checklists*
 - *All checklists were opened up for feedback from the Reference group in October 2013*
 - *Checklists to be finalized and published before summer 2014*





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WPCI LNG Fuelled Vessels Working Group

SWG 1: Bunker checklists and accreditation

- Some ports might choose the method of accreditation for LNG bunker companies based on certain conditions. A guideline for the content of these conditions will be developed in this SWG.
 - *Cfr. current accreditation system for conventional bunkering companies in Port of Antwerp, Gothenburg and Singapore*
 - *Focus on minimum safety requirements*
 - *Guidance document to be finalized and published before summer 2014*





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SWG 2: Risk Perimeters

- Create an overview of currently implemented and enforced risk perimeters in or near ports, and provide guidance with regards to LNG bunkering operations.
- End report will contain:
 - *report on the existing LNG risk perimeters in different ports*
 - *case studies of different ports on their modus operandi for the determination of risk perimeters of LNG bunker*
 - *a discussion paper on the need of harmonization of risk perimeters*
 - *1st draft of end report to be expected in Q3 2014*





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SWG 3: LNG Awareness

- Get ports moving towards an LNG fuelled future through clear and unbiased information.
 - *Sharing knowledge between ports will help to ensure that all ports start from a common ground, which is the earliest possible onset towards harmonization between ports.*
 - *Website to go live before summer 2014*
 - *Website will include deliverables of other 2 swgs*





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Active & consulting ports

ACTIVE
Amsterdam
Antwerp
Bremen
Brunsbüttel
Fujairah
Gijón
Gothenburg
Hamburg
Le Havre
Los Angeles
Rotterdam
Stockholm
Wilhelmshaven
Zeebrugge

CONSULTING
Flindersports
Singapore
Valencia
Adelaide
Broome
Talinn
La Spezia
Long Beach
Taranaki
NY & NJ

Leadport:

Port of Antwerp

***All ports are welcome to
join!***

***Industry partners will
also be invited to join!***





Thank you for your attention!

Any questions?

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