The Baltic Sea as a model region for green ports and maritime transport

We are paving the way

09 June 2017
International Maritime Congress, Szczecin, Poland
BPO – who we are?

BPO – Baltic Ports Organization

- **established**
  October 10, 1991
  Copenhagen

- **nearly 50 members**
  major ports in the 9 countries

- **registered in Estonia**
  Port of Tallinn headquarter

- **office in Gdynia**
  Poland
BPO – who we are?

BPO’s mission

The BPO’s mission is to contribute to sustainable development of maritime transport and the port industry in the Baltic Sea Region, thereby strengthening its global competitiveness.
BPO 25th Anniversary
BPO Tag Map
What we deal with?

Russian Economy EFFICIENCY Environment 45 Members
TEN-T/CEF Comprehensive Ports
Green Ports SECA NECA OPS

Coperation Sewage Projects The Baltic Sea EU
Overcapacity Synergies Port Package
EU Economy LNG
Too Many Ports Waste From Scrubbers
Relations Baltic Ports Organization
Regulating maritime transport in the Baltic Sea Region
Compliance with SECA

BPO Report: EU Sulphur Directive

One year after its entry into force
June 2016
Compliance with SECA

Fleet operating exclusively or mostly within SECA

- 600* bulk carriers
- 300* tankers
- 240 ferries
- 237 container ships
- 147 ro-ro vessels

Range of operation:
Ferries, ro-ro, container ships – exclusively in SECA
Bulk carrier and tankers – exclusively or mostly in SECA
Compliance with SECA

Technology applied in order to meet sulphur regulations by ships operators in short sea shipping in European SECA.

<table>
<thead>
<tr>
<th>Category</th>
<th>Ferries</th>
<th>Ro-ro</th>
<th>Container ships</th>
<th>Bulk carriers</th>
<th>Tankers</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGO</td>
<td>81.0%</td>
<td>70.9%</td>
<td>97.9%</td>
<td>99.2%</td>
<td>98.8%</td>
</tr>
<tr>
<td>HFO+scrubber</td>
<td>11.6%</td>
<td>27.8%</td>
<td>2.1%</td>
<td>0.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>LNG</td>
<td>0.4%</td>
<td>1.3%</td>
<td>2.1%</td>
<td>0.8%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Other (methanol)</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Go Baltic.
Compliance with SECA

Number of ships operating in the North Sea, Baltic Sea and English Channel that has installed scrubbers (up to June 2016)
BPO’s achievements

LNG bunkering

PRF for sewage

On-shore Power Supply
Number of LNG fueled vessels grows

Driving forces:

- Regulations and EU policy (SECA, NECA, TEN-T, CEF)
- Technology development
- LNG infrastructure and LNG availability
LNG in the Baltic Sea Ports project I

BPO initiated the project with 7 ports

Pre-investment studies such as EIA, feasibility analyses for LNG terminals or bunkering vessels, project designs, regional market studies, safety manuals, etc.

Stakeholder platform that facilitated discussions among port authorities, shipowners, gas infrastructure providers, energy traders and bunkering companies.

LNG in the Baltic Sea Ports project II

BPO extended the network with 5 other ports

Similar scope

The Global Project is focused on the harmonized pre-investment works and development of facilities for LNG bunkering infrastructure in Baltic Sea ports.

BPO projects: LNG in the Baltic Sea Ports (I and II)

Global project: Development of an LNG bunkering network in the seaports of the Baltic Sea region as an element of the Baltic Motorways of the Sea Programme
LNG fueled ships in the Baltic

Viking Grace
LNG fueled ships in the Baltic

Ro-pax Tallink Megastar
LNG fueled ships in the Baltic

Ternsund (1/4) owned by Terntank (Sweden)
LNG bunkering in the Baltic ports

Port of Stockholm

Ro-pax Viking Grace
1100 plus bunkering operations
LNG bunkering in the Baltic ports

Port of Helsinki

—

Turva – coastal guard vessel
Polaris - the first ever
LNG-fueled icebreaker
LNG bunkering in the Baltic ports

Port of Oulu

LNG-fueled icebreaker Polaris
LNG bunkering in the Baltic ports

Port of Gothenburg (offshore)

LNG ship to ship bunkering

Skangas together with Anthony Veder
LNG bunkering in the Baltic ports

Port of Rostock
—
Bunkering of Greenland
LNG bunkering fleet

LNG bunker tanker – Skangass

LNG bunker tanker – Bomin Linde, Klaipeda

LNG bunker tanker – concept design, Helsingborg
Sewage from passenger ships

BPO is a part of PRF Cooperation Platform at HELCOM
Port of Tallinn – Old City Harbour

Estonia’s biggest tourism gateway

Passengers
• ferries
• cruises
• yachts
Ro-Ro
PRF investments

In Old City Harbour

- 2016 – construction of micro-tunnel (EUR 1,8 M – co-financed by EU project TWIN-PORT2)
- Connects the sewage pipeline with the deep sewer system of the city
- Total reception capacity of sewage will increase from 100 m³ to 1000 m³ per hour.
PRF for sewage

Challenges

- Dialogue with local wastewater companies and municipalities
- Definition of adequacy of PRF (incl. small ports)
- Quality of sewage
- Investment costs of PRF is high
- Need to improve the information flow between port authorities and shipping companies to prevent “waste tourism”
Onshore Power Supply

Port of Gothenburg
Denmark terminal

Port of Trelleborg
Train Ferries

Värtahamnen
Stockholm

Port of Gothenburg
Germany terminal

Port of Ystad
Poland Ferries

Port of Kristiansand

Karlskrona Baltic Port

Port of Trelleborg

Märrahöle, Gothenburg

Source: Actemium
Onshore Power Supply

Case study

Port of Ystad
Onshore Power Supply

Case study

Port of Ystad

6,25 MVA 50Hz or 60Hz

Source: Actemium
Memorandum of Understanding

Ports work together

Port of Tallinn, Port of Helsinki, Port of Stockholm and Port of Turku signed a MoU for development of the new on-shore power supply for vessels.

Helsinki, 9th of September 2016
Challenges for OPS development

Economic/business feasibility
- many stakeholders
- rather high costs
- who should pay?

Legal requirements, extensive administration and reporting

Policy/regulations
Baltic ports

We are paving the way for greener ports
The Baltic Sea as a model region for green ports and maritime transport

BPO voice: The same rules should be applied in all EU

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Baltic Ports Conference 2017

7-9th September 2017
Port of Trelleborg, Sweden
Go Baltic!

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