



BACKGROUND NOTES

Electrifying Potential: Shore-side Power Generation in Ports

The digital conference brought together **over 100** with speakers, coming from different sectors related to maritime economy from across the Baltic Sea Region including **non-EU members Russia and Norway** to discuss practical examples and the policy context of shore-side power facilities and how to **ensure a transformation to a greener shipping and cruise industry in the Baltic Sea Region**.

The cross-sectorial representation from national governments, EU officials, international pan Baltic organisations, municipalities as well as directly from the branch – ports and cruising industry – ensured the holistic approach and brought the insights from the different perspectives. The conference was organized by DMA and CBSS in the framework of the Danish chairmanship in CBSS Expert Group for Sustainable Maritime Economy.

Welcome remarks

Lea Wermelin, Danish Minister for Environment

- **Have to do everything we can to navigate safely through the current crisis.**
- **Confident that the maritime sector will bounce back at full steam and that cruise lines will resume business in the future** with vaccines underway, yet it should not be business as usual – we need to reduce the air emissions in our harbours.
- **Important for air quality and health of citizens:** Shore power can reduce a ship's NOx and particle emissions with up to 90% by permitting ships to turn off their engines.
- **More collaboration is needed:** Large cruise ships need electricity equivalent to the consumption of a small city. To offer shore power across the Baltic Sea Region harbours, energy utilities, municipalities, and government authorities have to work closer together, do technical studies and find a financing model that works.
- **The Danish Presidency of the Nordic Council of Ministers secured the adoption of a Ministerial declaration** with the goals of creating the most sustainable cruise destination in the world and making shore power accessible in the largest and most visited cruise ports in the Nordic and Baltic Sea Area by 2030. At the end of this year, the Danish Presidency will present a roadmap report with concrete recommendations on how we can reach the goal.
- **European Green Deal** can create new growth and jobs and be a major driver for the development of our region.



Grzegorz Marek Poznanski, Director General of the Council of the Baltic Sea States

- **CBSS strives to identify needs and match them to available resources** and facilitate coordination of appropriate policies in the maritime sector.
- **CBSS takes a holistic and cross sectoral approach** in promoting the sustainable maritime economy by inviting governments, local authorities, academia, and business to work together to make the Baltic Sea Region as a model region for maritime best practice.
- **Foreign ministers of the Baltic States at the high-level representatives from CBSS at ministerial meeting in May 2020**, where they endorsed all regional initiatives in line with the 2030 agenda to promote sustainable development, address climate change, and protect the marine environment.
- **Welcoming the Lithuanian presidency of the CBSS Expert Group for Sustainable Maritime Economy**

First Session: Fulfilling the European Green Deal – Practical experiences with shore-side power generation

Niclas Mårtensson, CEO Stena Lines; Commissioner in the Swedish Government Electromobility Commission

- **Stena Line** is a privately owned family company that is both a shipping company and a port owner, owning seven ports and operates around 40 ships in Europe.
- **Connection of ports:** Stena line installed their first land shore connection in 1999 in Gothenburg, today, 25% of ports in their network are connected. Up to 40% of their ships have the potential to be connected.
- **High rate of connection In Baltic Sea.** By January 2021 80% of ships operated by Stena Line in the Baltic Sea will have a land shore connection.
- **Carbon reduction:** Five shore connected ports and the 12 ships in the Baltic Sea, have reduced carbon emissions by roughly 13,000 mt per year with OPS.
- **Three bottlenecks: financing, energy tax, and lack of green electricity:** If connecting in the port, it must be green energy, otherwise it doesn't make sense.
- **OPS requires collaboration and investments across actor groups in their areas of control:** The shipping company does the investments on board the ship, port companies do investments in the port, governments invests in infrastructure to and from the port out, and citizens invest in choosing sustainable transportation.



Trond Sikveland, Port Area Manager, Kristiansand Port Authority

- **Port of Kristiansand's first shore power system** opened in 2014, High voltage 11 kV/50Hz, using 2,8 mill kWh annually, **100% hydropower**.
- **Has several mobile low voltage systems** that can connect on most quays, power supply is integrated into **mobile containers**.
- **First connection in 2018**. In 2019, 14 cruise connections were planned and 10 completed. In 2021, they have 120 planned calls. By 2021/22, plan to connect 45% of cruise calls.
- **Practical details:** It takes approx. 30 mins to connect shore power and approx. 20 min to disconnect, included safety routines, learned that it is important to have communication with the chief engineer.

Run the shore-power operation as self-financing business

- The port took a risk and is now reaping the rewards.
- Include port investment and running cost in price per kWh.
- Fixed price for connecting/disconnecting the ship/cables.
- The price has been 20 cent per kWh for cruise ships.
- Have not experienced financial losses.

Alexander Gorohov, Commercial Director, of Passenger Port of St. Petersburg Marine Façade.

- **St. Petersburg is a top tourist destination, with the highest cruise traffic per volume of passengers in the Baltic Sea.** It is the main cruise port in Russia and owned by the City of St. Petersburg. Marine Façade is open for further work on green solutions and exploring possibilities for shore power for cruise ships. The port already has entered into process of looking for partners and negotiating with an energy company, although it concerns longer-term perspectives.

Shore power facilities as the way forward for greener tourism

- **Reduce emissions and air pollution**, driven by growing public attention and demand from city administrators.
- **Benefits include** opportunity to brand as the greenest cruise region in the global market.
- 75% of cruise ships will be ready to connect in coming years.

Considering a shore power facility, but the main challenge is investment.

- **Collaborating with colleagues in Baltic Sea Region** who are looking to provide shore power and want to join them in the upcoming years.
- **Have already cooperated on a European funded project**, to establish a year-round ferry connection and provide full range of services to passenger and cargo vehicles.
- **Strongly believe that shore power project will give for the positive effect on cruise tourism.**



Summary of Session 1: Q&A

- **Energy tax as a bottleneck** “The biggest bottleneck related to taxes is in our German ports, where there is an upper cap where we could not afford those investments, neither onboard the ship or in the port... I can only see that this must be supported by the governments by not adding taxes on green energy... and not only reducing the tax, but the price itself as well, on those energy costs.” -Niclas Mårtensson
- **Kristiansand Port Authority has multiple grid connections** to plug the mobile system into, with cabinets along the quay that connect the systems to the cabinets, just by the ships.
- **Stena Lines only uses green energy for shore power**, or else they do not set up OPS.
- **Alexander Gorohov stated that in relation to the challenges of investment** and their progress on OPS, “So as I said, we are in the beginning of the way. We are in touch with the energy companies with possible partners. And we are still deciding how to set up the green energy in our port. So next year, I will be capable to say more about that.”
- **Niclas Mårtensson stated that standardization would benefit everybody**. “It would be easier to invest and there would be much easier flexibility, both from a ship perspective by the port's perspective as well.”

Second Session: The Value of the Brand – The Baltic Sea as a green tourist destination

Marcus Andersson, Co-Founder and CEO of Future Place Leadership

Principals of innovative place branding

- **A place earns a reputation through action**. Importance of showing, not telling.
- **Emphasize what your place can do for others**. Challenge driven place branding is an effective way to attract talent: E.g. Copenhagen become the first carbon neutral capital in the world by 2025, therefore attracts talent that want to be part of this mission.
- **Innovation makes the difference**, use creative marketing strategies built on your place's unique identity: E.g. Polar bear pitching in Finland.
- **Be what you desire to appear**, and have a credible strategy to improve. E.g. Amsterdam used destination enlargement to entice people to go to other parts of the greater Amsterdam capital region rather than the inner city.
- **Word of mouth marketing is most effective**, work with stakeholders and target groups.
- **Join with rivals and share instead of competing**. E.g. European talent mobility forum and created a collaboration with entities in Europe that have come furthest in talent attraction, and together were more competitive than rivals US/Canada/New Zealand.
- Promoting the ports of BSR as hubs for sustainability, innovation, and attractiveness



- Good trust reputation: Sustainability is a part of the BSR Brand. **BSR is a challenge driven green tourist destination: more development, less marketing!**

Four opportunities for the Baltic Sea Region

- **A common purpose with global reach** – how to add value to the rest of the world, SDGs as a good starting point.
- **Invite the world to save the Baltic Sea** - Need a credible plan. Be inspired by challenge driven place branding and invite people to innovate Hackathons are a good opportunity.
- **Destination enlargement & slow cruising** - Be inspired by Amsterdam's destination enlargement, get more people to stay longer rather than hop around to different places as with traditional cruises.
- **Make ports more than sustainable but also welcoming places**, be inspired by Stockholm Royal Seaport which includes urban farming on the roofs.

Summary of Session 2: Q&A

- **There's a very strong first mover advantage in place branding**, if you can say that you're doing something first, it's really a good starting point.
- **It's important to walk the talk for sustainability** – have a credible plan and act on it.
- **It is key to invest in human capital**, see Future Place Leadership's website for a handbook on crisis management in the tourist industry.
- **A potential example of a slow cruise** could be the Norwegian Hurtigruten could offer an, **otherwise this is a new business model that needs to be tested.**

Third Session: The European Green Deal and Ports

Jørgen Bjerre, Deputy Head of Unit, Directorate-General for Mobility and Transport at the European Commission

The European Green Deal

- **Transport emissions to be cut by 90% by 2050** in order to achieve the Green Deal's goal to make Europe the first climate neutral continent by 2050 and reduce greenhouse gas emissions by at least 55% by 2030.
- **In the context of COVID-19 recovery**, the Green Deal ambitions have become even more important
- **"We can only spend the recovery money once and we need to make the right future proof investments."** - Jørgen Bjerre

Funding

- **The EU Budget - Total package of some €1.8 trillion:**
- **Long-term budget for 2021-2027 of €1.074 trillion** (including programmes such as Horizon Europe, CEF Transport, Cohesion and Regional Development funds)



- **NextGenerationEU, temporary recovery instrument of €750 billion** (including grants and loans under Recovery and Resilience Facility and InvestEU)

In conclusion, **“Ports will have an important role to play to help reach the target of climate neutrality by 2050.”** - Jørgen Bjerre

Jarek Kotowski, Senior Project Manager, European Commission, Innovation and Networks Executive Agency (INEA)

- **1.7 billion of EU funds allocated to maritime projects**, currently 174 actions in various investments in in maritime. Have nine instruments through which projects are supported.
- **In total - allocated 67 million for OPS investments**, will open next calls to intervene further.
- **OPS facilities are being financed** in 23 EU Maritime Ports overall.

Recent actions

- **Twin port action**, a connection between Helsinki and Tallinn.
- **EALING - European flagship action for cold ironing in ports**, high emissions therefore high priority for OPS.
- **Coordinated Supply of Onshore Power in Baltic Seaports**: Regional intervention the Baltic Sea for OPS, Port of Aarhus, Port of Copenhagen, Port of Stockholm and Port of Helsinki.
- **Pilot Actions: Zero Emission Ferries in Denmark and Sweden**: Replaced the marine gas oil fuelled propulsion systems of two RoPax ships with pure electricity power provision and provided OPS facilities in the ports.
- **CEF 1 “last” call for proposals: December 2020** - Last small call with limited scope due to a limited remaining budget.
- **Blending facility- 149€ million**: A tool to support development of alternative fuels and OPS, may be used in the future for shipping to retrofit vessels.
- **CEF 2**: New feature: Multi-annual work programme, 1st call expected spring 2021. Includes a new feature to make calls more predictable. Will be publishing calls on yearly basis, and plan to have same structure and scope for next 3 years.
- **Fuel Maritime Initiative in 2021**

Maximum co-financing rates

- There will be slightly better departing rate for projects, set to between minimum 30% and 50%. With cohesion envelope set to more.

“I would like to make it clear that OPS will have funding available in the future. There is concrete money planned for that. And I just hope we'll have more and more good projects” – Jarek Kotowski



Bogdan Oldakowski, Secretary General of the Baltic Ports Organization

- **The mission of the BPO is to contribute to sustainable development** of the port and maritime transport in the Baltic Sea, thereby strengthening the global competitiveness of the region.
- **Baltic Sea as a model region for green ports and maritime transport**, adopted in 2017.

Political frameworks

- **European Green Deal**, includes section on regulating access of the most polluting ships to EU ports and to oblige docked ships to use shore-side electricity.
- **Policy Area on Clean Shipping (PA Ship)** - overall goal is for the Baltic Sea Region “to become a model region for clean shipping”.
- **The Council of Ministers for the Environment and Climate** - Cleaner Cruises through More Shore Power - **provided declaration that they want to be a sustainable cruise destination**, think that other Baltic countries will also cooperate with the Council of Ministers from Nordic (Nordic Council of Ministers) in order to achieve this goal.
- **BPO has an intention to establish a Group of Cruise Managers**, to discuss the challenges impacted by the crisis, since the cruising industry especially has suffered most in the travel branch.

Many challenges to greater development

- Installation is expensive, tax can be problematic different in different countries. Many different stakeholders, not only the port, also shipping clients, the energy supplier, the terminal operators, etc. Want to avoid the power being installed where it is not needed.

European Green Deal

- Ports have a role to play, some have their own declarations.
- Port of Helsinki declared that they will be Climate Neutral by the year 2035.
- Port industry is mapping the emissions of CO₂ from all ports activities to inform goal setting.

Summary of Session 3: Q&A

- **Cruise ships requires by far the largest capacity** (MWs), where commercial shipping only requires kW. By scaling to cruise ships from the onset, expanding to commercial shipping down the line becomes easier.
- **The EU ETS proposal** will take some time before it can become law, however it is an important stepping-stone.
- **The European Commission will impose emission standards for shipping and make these standards stricter in port.** To start, the requirement will be for the biggest emitters, cruise ships, ferries and container vessels. The idea would be to provide an incentive to use OPS or alternative means of reducing air pollution.
- **There will be funding available for ports**, including funds under the new connecting Europe facility. This funding will be concentrated for ports on the comprehensive



network of the TEN-T network. The possibilities for ports outside the TEN-T network will probably be with the regional funds. It is important for stakeholders to contact the national authorities on these issues, so that ports can be considered for these funds.

- **Obtaining a grant for ports** from connecting Europe facility can be easier than applying for a loan from a bank. Other options are national incentive schemes (Finland, Norway). EU funding is available, check the website and sign up for the newsletter to be notified about new grants.
- **EU Commission is reducing risk** of installing OPS where it is not needed, by first obliging a number of ships, ferries, cruise vessels, and container ships to use OPS and then further vessel types can follow a later on.
- **Port dues can incentivize OPS**, but that is up to the individual port. Some of the Baltic ports are using a special scheme for shipping lines, so if they're using OPS, they can get a discount on import fees.
- **EU legislators are working to introduce incentives for OPS**, grants, taxation measures, etc. And national authorities are incentivizing shipowners to use the facilities.
- **BPO is supporting sustainable shipping and cruise industry** by establishing a group of the cruise managers from ports around the Baltic discuss challenges, including climate change COVID.

Closing Remarks by Denmark and Way Forward by Lithuania

Andreas Nordseth, Director General of the Danish Maritime Authority

- **OPS has many benefits:** Not only does it reduce bunker fuel consumptions in ports, it also reduces the emission of particles and other harmful substances to city environments.
- **New business opportunity for ship owners and ports**, investing in shoreside power can be a sound business move with long term benefits, despite of the immediate heavy cost.
- **OPS is catering to the modern consumer and citizens** who are increasingly becoming environmentally conscious and concerned.
- **Baltic Sea Region is a global hotspot for innovating green solutions** that both address the global climate change and **create growth and jobs**.
- **Shipping and ports are a vital part of the EU infrastructure and key to achieving the Green Deal goal of 90% reduction in greenhouse gases from transport by 2050.**
- **Political will signalled by Nordic Council declaration**, that by 2030 shoreside power becomes available in the larger cruise ports.
- **"In conclusion, the demand, the ambition, and the will to act on all levels is in place in the Baltic Region."**



Jonas Mažeika, Lithuanian Ministry of Foreign Affairs - Chairman of the CBSS Expert Group on Sustainable Maritime Economy, Counsellor External Economic Relations and Economic Security Policy Department.

- **Goals of Lithuanian presidency:** turning regional challenges into opportunities. Focus on priorities including developing green industry, promoting green and maritime tourism which provides employment opportunities to young people, boosting protection in the region against major emergencies and disasters in light of the pandemic, strengthening the involvement of the young people in building up the future of the Baltic Sea Region.
- **10 years ago, the heads of government of the CBSS Member States adopted the Declaration and Vision of the state of our region by 2020.**
 - An assessment of the fulfilling of goals find this reflection paper is available on the CBSS website.
 - Next step is the declaration of vision for the Baltic Sea Region until 2030, for which the sustainable maritime economy plays a key role.
 - Other important declarations include the Reikjavik Declaration and the Bornholm Declaration
- **Improving long term sustainability is more important than ever before.**
 - We need systemic transformational and urgent changes to support the transition to a sustainable maritime economy, with proactive and bold financing and policies.
 - Our existence relies on nature: “we cannot continue chasing economic growth in ways that degrade the environment”.
- **Upcoming EGSME conference in late spring of next year in Klaipeda,** on marketing, branding, and digitalization for Baltic Sea marinas-guest harbours as a single destination, in alignment with the goals of the Lithuanian presidency.