

Policy guidance on the development of shore power at ports

When ships are at berth they can stop their main engine(s) since the propulsion is not needed anymore. But some basic functions still need to be supported and require the production of (energy such as) electricity. Therefore, auxiliary engines are still commonly used when ships are in ports.

The use of shore-side electricity allows the ship to reduce as much as possible the use of auxiliary engines and thus to reduce air emissions of CO₂, NO_x and SO_x as well as particulate matter. The use of shore power would limit the negative effects of such emissions on the human health and environment surrounding the berthing areas. If electricity originates from clean and renewable sources use of the use of shore power will also reduce air pollution in wider region and the climate impact.

The use of shore power electricity, also called cold ironing, has been developed in several ports on the global scale. Few Baltic Sea ports have implemented the regular use of shore power for the berthing ships.

The development of shore power in ports was identified as a priority policy option by CSHIPP. During the Policy Workshop held on 4 September 2019 in Gothenburg, experts from different Baltic Sea Countries and also from countries outside the Region and the EU helped to define the next steps to produce guidance for this policy option in the Baltic Sea Region.



Main recommendations:

The use of shore power in the Baltic Sea Region is still limited to a few cases. The main guidance identified for this policy option are to:

- Increase the research on **international standards** for electrical power distribution common for different countries and continents;
- Increase the research on the **operational and technical aspects** of shore power onboard ships;
- **Promote shore power** in the shipping, port and energy sectors

Clean Shipping Project Platform (CSHIPP) brings together several projects and organisations focused on promoting and developing clean shipping in the Baltic Sea region. By concentrating on collaboration, CSHIPP strives to increase the impact of and connect the dots between the various projects and organisations which look at the shared topic of clean shipping from different angles.

Policy guidance for shore power in the Baltic Sea Region

The aim of this activity within CSHIPP is to highlight to the HELCOM Maritime Working Group some policy guidance on the topic of shore power in the Baltic Sea Region. To go further, CSHIPP has identified some other possible steps to work on each recommendation.

| International standards | Operational and technical aspects onboard the ships | Promotion of shore power |
|--|--|---|
| <p>Definition of international standards for electrical power distribution: connection to national grid, power conversion (frequency) between the grid and the ships, etc.</p> <p><i>First step identified by CSHIPP outside the scope of HELCOM Maritime WG:</i></p> <ul style="list-style-type: none"> - Discussion with the energy sector and the shipping industry (Port organizations, EUSBSR Policy Area (PA) Ship and Energy). | <p>Research is needed on operational aspects, for example on the different patterns of calls in ports (time at berth depending of the ship type, cutting line to use shore power, reduction of emissions, etc.).</p> <p>Some technical aspects onboard the ships should also be investigated more: plug-in capabilities type and position, etc.</p> <p><i>First step identified by CSHIPP outside the scope of HELCOM Maritime WG:</i></p> <ul style="list-style-type: none"> - Promoting this research topic during the work on projects application and primary discussions within the EUSBSR PA Ship on the needs of increasing this knowledge. - research concepts for future activities (i.e. projects application) | <p>Shipping, ports as well as energy sectors are among the stakeholders that should be involved in promoting shore power (choice of source of energy to be used between fossil or renewable, positive insight of shore power, decrease of efficiency with long distance transport of electrical energy , etc.).</p> <p><i>First step identified by CSHIPP outside the scope of HELCOM Maritime WG:</i></p> <ul style="list-style-type: none"> - Identification and promotion of current and future pilot projects. - Possible discussion within EUSBSR PA Ship and Energy |

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