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GREEN INFRAPORT PROJECT – AREAS OF INTEREST
GREEN INFRAPORT PROJECT

The project refers to the following challenges:

1. Port reception facilities for sewage and scrubber waste from passenger ships
2. Liquefied Natural Gas (LNG) bunkering infrastructure
3. On shore power supply and energy management in ports and terminals.
PROJECT FUNDING OPPORTUNITIES:

1. Connecting Europe Facility – Motorways of the Sea
2. INTERREG South Baltic Programme
3. INTERREG Baltic Sea Region
4. INTERREG EUROPE
CONNECTING EUROPE FACILITY

• Co-financing rate:
  – Up to 85% - Cohesion countries
  – Up to 30% - Other EU states (up to 50% for studies)

• Budget 2015:
  – Cohesion envelope: 6.47 bln EUR
  – General envelope: 1.09 bln EUR

• Expected CEF budget 2016
  – General envelope: c.a. 50 mln EUR
  – Cohesion envelope: significantly reduced in comparison to 2015
CEF MOTORWAYS OF THE SEA 2015

Approved

- Cohesion envelope: 84,871,267 EUR
- General envelope: 1,013,870 EUR

Rejected

- General envelope: 274,251,961 EUR
- Cohesion envelope: 2,105,025 EUR
CEF MoS Programme Requirements:

• Proven maturity of the project:
  – Environmental/development permit issued for the project;
  – Feasibility studies ineligible for financing;

• Proven consistency with environmental policy:
  – EIA report, confirmation by relevant authorities whether the project falls under the Annex I or Annex II of the EIA Directive;
  – Assessment of the impact upon Natura2000 - declaration by authorities in charge of N2000 monitoring;
INTERREG SOUTH BALTIC PROGRAMME

• **Rate of cofinancing:**
  – 85% - Polish, Lithuanian, Latvian, Estonian, German beneficiaries
  – 75% - Swedish, Danish beneficiaries

• **Programme objective:**
  – Unlocking potential for blue and green growth through cross-border cooperation between local and regional actors;
  – pursuing the path of economic growth in balance with the environment, in particular by utilising South Baltic’s rich natural and cultural heritage in a sustainable and preserving manner;
INTERREG SOUTH BALTIC PROGRAMME

• **Deadline for the call:** mid-December 2016
• **Priority areas:**
  – Strengthening international activeness and innovation capacity of the South Baltic blue & green economy
  – Exploiting the environmental and cultural potential of the South Baltic area for blue and green growth
  – Improving cross-border connectivity for a functional blue and green transport area
  – Boosting human resource capacities for the area’s blue and green economy
  – Increasing cooperation capacity of local actors
INTERREG BALTIC SEA REGION

• **Rate of cofinancing:**
  85% - Polish, Lithuanian, Latvian and Estonian beneficiaries
  75% - Swedish, Danish, Finnish beneficiaries

• **Programme objectives and features:**
  – Strengthening integrated territorial development and cooperation for a more innovative, better accessible and sustainable Baltic Sea Region;
  – Promotes transnational cooperation and integration by projects addressing common challenges and opportunities of the region;
  – Preferred projects of strategic character;
INTERREG BALTIC SEA REGION — PRIORITY AREAS

• Capacity for innovation
• Management of natural resources
  – Renewable energy
  – Energy efficiency
  – Blue growth
• Sustainable transport
  – Interoperability
  – Accessibility
  – Maritime safety
  – Shipping
• EU Strategy support
INTERREG BALTIC SEA REGION

• **Two-stage proposal submission:**
  – Concept note
  – Main project (upon invitation)

• **Project submission deadline:**
  • January 2017 – main project application (only concepts selected at first stage)
INTERREG EUROPE

• Addressed to regional and public authorities to share ideas and experience on public policy in practice, improving strategies for their citizens and communities.

• Areas of activities:
  – Research and innovation
  – SME competitiveness
  – Low-carbon economy
  – Environmental and resource efficiency
INTERREG EUROPE

• Rate of co-financing:
  – 75% - private non-profit bodies
  – 85% - public bodies and bodies governed by public law
• Calls for project organised annually, call 2016 held between 5 of April and 13th of May
ONSHORE POWER SUPPLY – CASE STUDY

Annual ships’ electricity consumption: 4 GWh

Specifications of the OPS installation:

– Maximum power input: 4.5 MW
– Frequency: 50 Hz
– Voltage: 10 kV

• Planned annual emissions’ reduction:
  – Carbon Dioxide (CO2): - 2,880 tons
  – Sulphur Dioxide (SOx): - 1.84 tons
  – Nitrous Gases (NOx): - 47.2 tons
  – Particles (PM): - 1.2 tons

• Approximate value of the investment: 1,050,000 EUR
PORT RECEPTION FACILITIES

- Current discharge rate – 35 m³/hour
- Planned discharge rate – 300 m³/hour (up to 1000 m³/call)
- Expected discharges a call (since 2017) - 433
- Interconnection to municipal sewage system
- Port Reception Facilities include:
  - waste water sewer and storage
  - pumping facilities
  - pressure pipe to the municipal sewage collector
- Approximate value of the investment: 1 300 000 EUR
Energy Management in Ports and Terminals

- Significant potential for a broad scope of activities, including:
  - Energy consumption monitoring,
  - Energy planning,
  - Increasing energy efficiency of port/terminal buildings, vehicles, vessels as well as operations,
  - Development of own clean energy sources and use of clean fuels
ENERGY MANAGEMENT: CONSUMPTION MONITORING AND PLANNING

• Implementation of smart metering system for monitoring consumption and data collection and processing,

• Development/implementation of the energy planning tools for processing of monitoring data (in scope of geographic location) and management of energy system,

• Energy cost management – procurement processes/auctions of energy

• Cooperation with stakeholders in charge of energy management: energy utilities, distributors
ENERGY MANAGEMENT: ENERGY EFFICIENCY

• Outdoor and indoor lighting management systems,
• Implementation of smart energy management systems, as part of Terminal Operation Systems, optimizing energy consumption (heat recovery, indoor temperature adjustment, light management, automatic shutter’s sliding),
• Dual Fuel LNG powered and energy efficient machinery:
  – Rubber Tyred Gantry (RTG) cranes,
  – Ship-to-shore (STS) cranes,
  – Reach Stackers
  – Empty Container Handlers
  – Terminal tractors
ENERGY MANAGEMENT: CLEAN ENERGY SOURCES

- Use of spare land for the development of clean energy sources covering needs of ports/terminals as well as supplying vessels via On-shore Powers Supply systems,
- Development of renewable energy sources, including wind turbines, photovoltaic power plants, solar thermal installations.
- Development of natural gas/biogas based combined heat and power units.
ENERGY MANAGEMENT: ENERGY EFFICIENCY

• Optimization of the port/terminal machinery performance
  — RTG and/or STS crane performance optimisation
• Implementation of electric drives
DEVELOPMENT OF LNG FACILITIES

• LNG in the Baltic Sea Ports I & II
  • Investment preparation: EIA reports, development permits
• HEKLA – Helsingborg and Klaipeda LNG Facility Infrastructure Deployment
  — Construction of the Refuelling plant in Klaipeda
  — Liquefaction plan in Helsingborg
Thank you!

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