

Promoting the energy transition in shipping and ports services in the Caribbean. Component I: STRENGTHENING DATASETS

Post of Duty: Hometown and locations as needed

The IDB Group is a community of diverse, versatile, and passionate people who come together on a journey to improve lives in Latin America and the Caribbean. Our people find purpose and do what they love in an inclusive, collaborative, agile, and rewarding environment.

About this position

We are looking for an experienced consultant or a firm with knowledge of the Caribbean shipping industry to provide outputs for Component I of the TC *“Promote the energy transition in shipping and ports services in the Caribbean.”*

The consultant or firm will report to the Bank’s Energy Division (INE/ENE) and coordinate, as needed, with the Transport Division (INE/ENE) and the Climate Change Division (CCS). The consultant or firm will be contracted in accordance with Bank policies as follows: (i) hiring of individual consultants, as established in the AM-650 standards; (ii) contracting of consulting firms for services of an intellectual nature according to GN-2765-4 and its associated Operational Guidelines (OP-1155-4); and (iii) contracting logistics and other related services, in accordance with policy GN-2303-28.

Relevant background

The objective of this Technical Cooperation (TC) is to support the Caribbean eligible countries in promoting the energy transition in shipping and port services.

The shipping industry in the Caribbean is complex. The Bank identifies three value chains as the keys to steering the sector decarbonization efforts: the marine fuel value chain, the shipbuilding value chain, and the maritime operations value chain.

- *The marine fuel value chain.* The marine fuel value chain encompasses exploration, transportation, processing, and transportation of fuel to the fueling spots and consumption by ship operators. Some shipbuilders and engine manufacturers are building ships with engines that can operate on methanol and fuel oil, or on LNG and fuel oil. Given the lack of alternative and cost-equivalent low-carbon/zero-emissions fuels, ships equipped with dual-fuel engines run primarily on conventional fuel oil. A wide range of low-carbon / zero-emission fuels is under development, such as green LNG, green methanol, green ammonia, and green hydrogen, with different timelines of availability on the market.
- *The shipbuilding value chain.* The shipbuilding phases include design, procurement of construction materials, ship assembly, post-production maintenance, refitting, and end-of-life recycling. All phases need to address decarbonization. Ships designed for minimal Greenhouse Gas (GHG) emissions have optimised hydrodynamic hull design, wind support when sailing, use dual-fuel and high-efficiency engines, and use systems to optimise routing and port arrival. Steel for manufacturing ships should be sourced from low-carbon production suppliers. Circularity principles for the design and construction maximise reuse when a ship has reached the end of use.
- *The operations and maintenance value chain.* The maritime operational value chain covers fueling, provisioning, loading, boarding, voyaging, unloading, disembarking, and refuelling. Ship operators have opportunities to reduce GHG emissions, including

leveraging the size and speed of ships and fleets, demanding hydrodynamic designs and dual-fuel engines or ships (partially) powered by biodiesel and electricity. Carbon reduction measures also apply to seaports that are a crucial part of the operational chain. Ports can accelerate decarbonization in the shipping industry with infrastructure for storing and bunkering of alternative fuels and onshore power supplies.¹

What the consultant or firm will do

- Develop outputs (deliverables) for Component I of the TC: Strengthening datasets

Deliverables and Payments Timeline

Component I - Strengthening datasets

Deliverable 1: Using secondary sources, prepare a complete mapping of ocean and river shipping legal and regulatory frameworks and companies that offer shipping services in the Caribbean. The information to collect will include relevant regulatory and legal framework for the industry and specifically for decarbonisation policies; company name, location and ownership; routes and annual volume of transport and cargo description; type and size of vessels used, including fuel type and consumption; ports used and frequency; insurance company; other relevant information. The dataset will be recorded in electronic format using a Bank approved database software and will include a description of metadata. This deliverable, finally, will provide a roadmap to maintain and update it in the future, including a budget.

Deliverable 2: Selection of critical mass of companies identified in deliverable 1. Critical mass of companies is defined by annual volume of transport and should include a representative sample of all major ports in the Caribbean, and the three value chains as much as possible identified in deliverable 1.

Deliverable 3: execute a survey to the selected companies of deliverable 2. The survey, in the form of a structured questionnaire for the three value chains of interest (the marine fuel value chain, the shipbuilding value chain, and the maritime operations value chain) will focus on the types of fuels, energy use, efforts to diversify away from fossil fuel, and efficiencies in the shipping and ports operations in the Caribbean. Anecdotal evidence of decarbonisation efforts and cause-effect incentive frameworks are of value and should be recorded. The survey, to be approved by the Bank, will include a breakdown by gender as much as possible. Its results will be tabulated and presented in a report and in electronic format using a Bank approved database software. This deliverable, finally, will provide a roadmap to maintain, update and improve the survey in the future, including a budget.

Deliverable 4: Summarise all the work performed in deliverables 1-3 in a document including sources and providing all data collected and analysed. Add a presentation showing main findings, results, lessons learned and suggestions for follow up work to update the information collected.

¹ UNCTAD Transport and Trade Facilitation Newsletter N°94 - Second Quarter 2022.

<u>Deliverable #</u>	<u>Percentage</u>	<u>Planned Date to Submit</u>
1. Using secondary sources, prepare a mapping of ocean and river shipping companies that offer shipping services in the Caribbean	TBD	TBD
2. Selection of critical mass of companies identified in deliverable 1	TBD	TBD
3. Execute a survey to the selected companies of deliverable 2	TBD	TBD
4. Summary document, presentation and dataset with metadata	TBD	TBD

What you'll need

- **Education:** Master (or equivalent advanced degree) in economics, development studies, or other fields relevant to the responsibilities of the role.
- **Experience:** At least 15 years of progressive experience in development project implementation or research in the shipping sector. Excellent writing, communication, presentation, and interpersonal skills.
- **Languages:** Proficiency in English and one of the other Bank official languages (Spanish, French or Portuguese) is required.

Key skills

- Learn continuously.
- Collaborate and share knowledge.
- Focus on clients.
- Communicate and influence.
- Innovate and try new things.

Requirements

- **Citizenship:** You are a citizen of one of our 48-member countries.
- **Consanguinity:** You have no family members (up to the fourth degree of consanguinity and second degree of affinity, including spouse) working at the IDB, IDB Invest, or IDB Lab.

Type of contract and duration

- **Type of contract:** Products and External Services Consultant (PEC), Lump Sum.
- **Length of contract:** 36 months
- **Work Location:** Remote.

What we offer

The IDB group provides benefits that respond to the different needs and moments of an employee's life. These benefits include:

- A **competitive compensation** package.
- A flexible way of working. You will be evaluated by deliverables.

Our culture

At the IDB Group we work so everyone brings their best and authentic selves to work, willing to try new approaches without fear, and where they are accountable and rewarded for their actions.

Diversity, Equity, Inclusion and Belonging (DEIB) are at the centre of our organisation. We celebrate all dimensions of diversity and encourage women, LGBTQ+ people, persons with disabilities, Afro-descendants, and Indigenous people to apply.

We will ensure that individuals with disabilities are provided reasonable accommodation to participate in the job interview process. If you are a qualified candidate with a disability, please e-mail us at diversity@iadb.org to request reasonable accommodation to complete this application.

Our Human Resources Team reviews every application carefully.

About the IDB Group

The IDB Group, composed of the Inter-American Development Bank (IDB), IDB Invest, and the IDB Lab offers flexible financing solutions to its member countries to finance economic and social development through lending and grants to public and private entities in Latin America and the Caribbean.

About IDB

We work to improve lives in Latin America and the Caribbean. Through financial and technical support for countries working to reduce poverty and inequality, we help improve health and education and advance infrastructure. Our aim is to achieve development in a sustainable, climate-friendly way. With a history dating back to 1959, today we are the leading source of development financing for Latin America and the Caribbean. We provide loans, grants, and technical assistance; and we conduct extensive research. We maintain a strong commitment to achieving measurable results and the highest standards of integrity, transparency, and accountability.

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https://twitter.com/the_IDB

Promoting the energy transition in shipping and ports services in the Caribbean. Component II – CLEAN ENERGY DEMAND AND SUPPLY ASSESSMENTS

Post of Duty: Hometown locations as needed

The IDB Group is a community of diverse, versatile, and passionate people who come together on a journey to improve lives in Latin America and the Caribbean. Our people find purpose and do what they love in an inclusive, collaborative, agile, and rewarding environment.

About this position

We are looking for an experienced consultant or a firm with knowledge of the Caribbean industry to provide outputs for Component II of the TC “*Promote the energy transition in shipping and ports services in the Caribbean.*”

The consultant or firm will report to the Bank’s Energy Division (INE/ENE) and coordinate, as needed, with the Transport Division (INE/ENE) and the Climate Change Division (CCS). The consultant or firm will be contracted in accordance with Bank policies as follows: (i) hiring of individual consultants, as established in the AM-650 standards; (ii) contracting of consulting firms for services of an intellectual nature according to GN-2765-4 and its associated Operational Guidelines (OP-1155-4); and (iii) contracting logistics and other related services, in accordance with policy GN-2303-28.

Relevant background

The objective of this Technical Cooperation (TC) is to support the Caribbean eligible countries in promoting the energy transition in shipping and port services.

The shipping industry in the Caribbean is complex. The Bank identifies three value chains as the keys to steering the sector decarbonization efforts: the marine fuel value chain, the shipbuilding value chain, and the maritime operations value chain.

- *The marine fuel value chain.* The marine fuel value chain encompasses exploration, transportation, processing, and transportation of fuel to the fueling spots and consumption by ship operators. Some shipbuilders and engine manufacturers are building ships with engines that can operate on methanol and fuel oil, or on LNG and fuel oil. Given the lack of alternative and cost-equivalent low-carbon/zero-emissions fuels, ships equipped with dual-fuel engines run primarily on conventional fuel oil. A wide range of low-carbon / zero-emission fuels is under development, such as green LNG, green methanol, green ammonia, and green hydrogen, with different timelines of availability on the market.
- *The shipbuilding value chain.* The shipbuilding phases include design, procurement of construction materials, ship assembly, post-production maintenance, refitting, and end-of-life recycling. All phases need to address decarbonization. Ships designed for minimal Greenhouse Gas (GHG) emissions have optimised hydrodynamic hull design, wind support when sailing, use dual-fuel and high-efficiency engines, and use systems to optimise routing and port arrival. Steel for manufacturing ships should be sourced from low-carbon production suppliers. Circularity principles for the design and construction maximise reuse when a ship has reached the end of use.
- *The operations and maintenance value chain.* The maritime operational value chain covers fueling, provisioning, loading, boarding, voyaging, unloading, disembarking, and refuelling. Ship operators have opportunities to reduce GHG emissions, including

leveraging the size and speed of ships and fleets, demanding hydrodynamic designs and dual-fuel engines or ships (partially) powered by biodiesel and electricity. Carbon reduction measures also apply to seaports that are a crucial part of the operational chain. Ports can accelerate decarbonization in the shipping industry with infrastructure for storing and bunkering of alternative fuels and onshore power supplies.¹

What the consultant or firm will do

- Develop outputs (deliverables) for Component II of the TC: Analytical and technical assessments, using as inputs the results of the Component I of the TC

Deliverables and Payments Timeline

Component II - Clean energy demand and supply assessments

Deliverable 1: Prospection of future demand for green fuels and shore power. Assessment and prospection of the future green fuels (e.g. green hydrogen and derivatives) demand in the maritime industry and logistical transport channels--hubs and transport routes. The dataset will be recorded in electronic format using a Bank approved database software and will include an explanation of metadata used. This deliverable, finally, will provide recommendations on how to maintain and update it in the future, including a budget.

Deliverable 2: Prospection of the required supply of renewable energy to meet the alluded demand; and policy recommendations for government authorities and stakeholders to coordinate actions collaboratively. Assessment of the future required supply of renewable energy to meet the projected demand identified in deliverable 1. The analysis would consider different scenarios and the main production and consumption hubs in the selected regions (the Caribbean and the South Cone). In addition, the analysis includes policy recommendations and guidance documents as outputs for government authorities and stakeholders to coordinate actions collaboratively.

Deliverable 3: Summarise all the work performed in a document including sources and providing all data collected and analysed. Add a presentation showing main findings, results, lessons learned and suggestions for follow up work to update the information collected.

<u>Deliverable #</u>	<u>Percentage</u>	<u>Planned Date to Submit</u>
1. Prospection of future demand for green fuels and shore power	TBD	TBD
2. Prospection of the required supply of renewable energy demand and policy recommendations.	TBD	TBD
3. Summary document, presentation and dataset with metadata	TBD	TBD

What you'll need

- **Education:** Master (or equivalent advanced degree) in economics, development studies, or other fields relevant to the responsibilities of the role.

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- **Experience:** At least 15 years of progressive experience in development project implementation or research in the shipping sector. Excellent writing, communication, presentation, and interpersonal skills.
- **Languages:** Proficiency in English and one of the other Bank official languages (Spanish, French or Portuguese) is required.

Key skills

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Requirements

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Type of contract and duration

- **Type of contract:** Products and External Services Consultant (PEC), Lump Sum.
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**Promoting the energy transition in shipping and ports services in the Caribbean.
COMPONENT 3 Project mgmt. and knowledge dissemination.**

Post of Duty: Hometown and locations as needed

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About this position

We are looking for an experienced consultant or a firm with knowledge of the Caribbean maritime industry to provide outputs for Component III of the TC "*Promote the energy transition in shipping and ports services in the Caribbean.*"

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What the consultant or firm will do

- Develop outputs (deliverables) for Component III of the TC: communication and knowledge dissemination using as inputs the results of the Components I and II of the TC to be provided by the Bank.

Deliverables and Payments Timeline

Component III – Project mgmt. and knowledge dissemination

Deliverable 1: Summarise the work done in Components I and II in a short document that will be used to raise awareness on International Maritime Organisation (IMO) GHG reduction strategy and develop recommendations for its implementation.

Deliverable 2: With Bank support, design and facilitate: (i) cross sectoral workshops with relevant stakeholders, including government entities, industry associations, and research centres; (ii) capacity building programs to assist key stakeholders advance in the decarbonization and climate-resilient agenda; (iii) policy and position papers; and (iv) dissemination events (with public and private sectors).

<u>Deliverable #</u>	<u>Percentage</u>	<u>Planned Date to Submit</u>
1. Summarise the work done up to this point in a document that will be used to raise awareness on International Maritime Organisation (IMO) GHG reduction strategy and develop recommendations for its implementation	TBD	TBD
2. With Bank support, design and facilitate: (i) cross sectoral workshops with relevant stakeholders, including government entities, industry associations, and research centres; (ii) capacity building programs to assist key stakeholders advance in the decarbonization and climate-resilient agenda; (iii) policy and position papers; and (iv) dissemination events (with public and private sectors)	TBD	TBD

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- **Education:** Master (or equivalent advanced degree) in economics, development studies, or other fields relevant to the responsibilities of the role.

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