# PROJECT DESCRIPTION


# HOYLAND SUPPLY & RENEWABLES AS

# VESSEL: SAR ODIN

# TABLE OF CONTENTS

## 1.0. HOYLAND SUPPLY & RENEWABLES AS BACKGROUND

Hoyland Supply and Renewables AS is based in Steinsland Norway. The company is a private limited one which operates in the international sea freight industry. The company is an Offshore Service Vessels supplier with focus on modern and flexible solutions serving the offshore industries world-wide. Our activities are mainly concentrated on the markets in Europe but with activities both in South America and Africa regions for the past years.

With over 45 years of experience, the company has very good performance praised by our clients. This has been achieved by a good work environment where all employees are in the focus. High focus on Health, Safety and Environment added to Quality throughout our organization has been key element in our success.

The company targets low emission vessel as an ongoing activity and zero emission as a future target. We are committed to reducing our actual carbon emissions through investing in green technology, continuous operational improvements and supporting research into the next generation of fuels, lay outs, arrangements etc. The company passionately believe that action to reduce global emissions needs to be taken today.

## 2.0. PROPOSED OPERATION

The company provides support to the Guyana's oil and gas industry. In this scope, the company will be providing bunkering services for the refuelling of Saipem pipelaying vessel Castorone, using its vessel: Sar Odin which is a large size PSV with good station keeping cargo capacities, large accommodation and SPS. This operation will provide bunkering support to Exxon Mobil's Uaru Project.

## 3.0. PROJECT DURATION

This project is estimated to run approximately 5 years.

## 4.0. WATER, ELECTRICITY AND COMMUNICATIONS

The vessel is outfitted with built in systems of utilities.

### 4.1. LOCATION

The vessels will support the Uaru Project which is located offshore Guyana. Figure 1 below shows the location of the Project. The closet town to its operation is Georgetown. The receiving water bodies in the project's area of influence impacted are the Demerara River and the Atlantic Ocean.

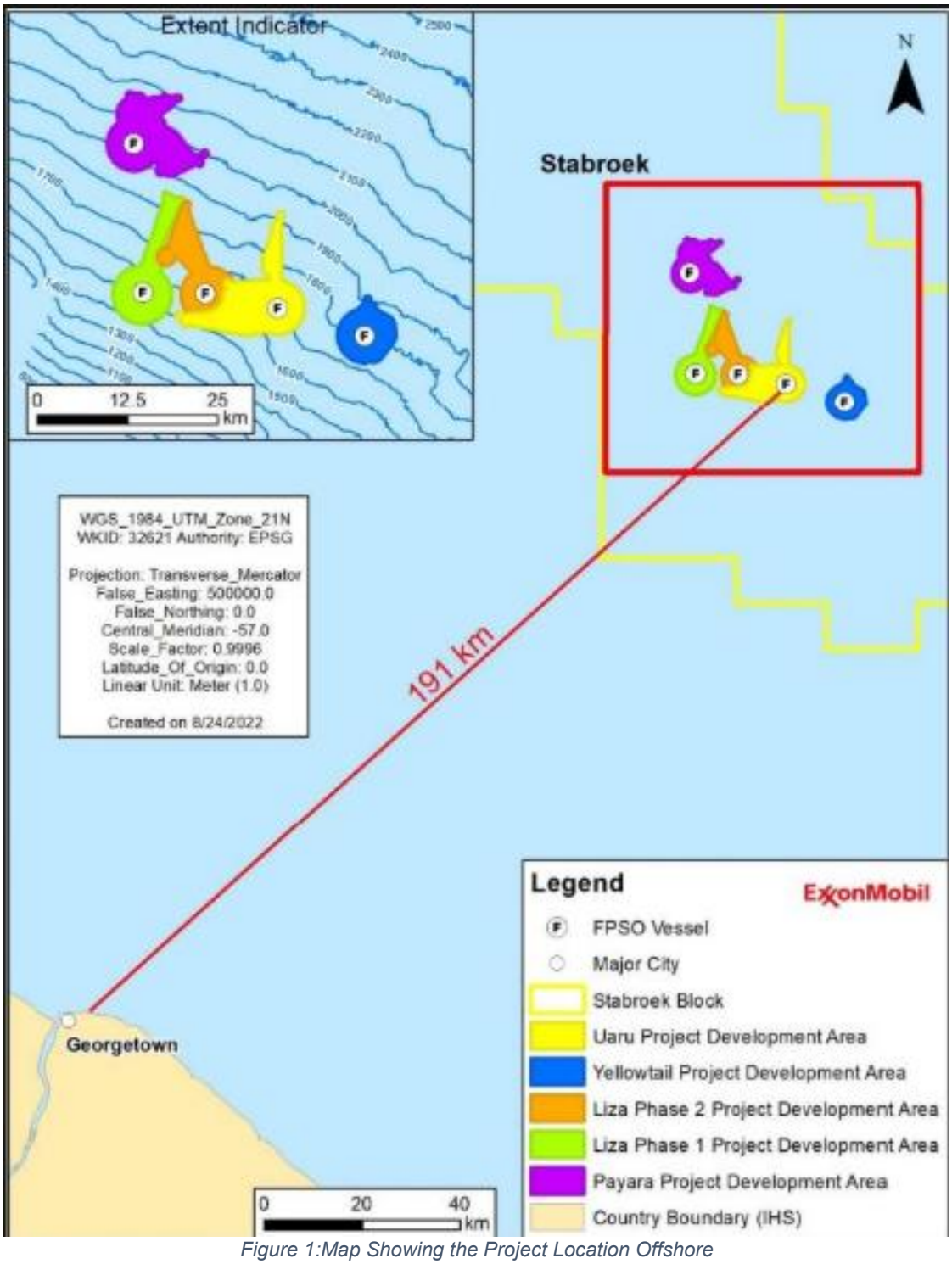


*Figure 1:Map Showing the Project Location Offshore*

(Source: Oilnow, 2023)

### 4.2. OVERVIEW OF BUNKERING OPERATION

The bunkering vessel will provide services to Saipem's pipe-laying vessel. The fuels will be received from Georgetown via the Demerara River, Guyana. The fuel will be stored in dedicated compartments aboard the vessel in its specific compartments. All activities will be carried out following international standards. The fuel will then be transported from Georgetown, in Guyana's waters, to offshore to the Uaru Project, offshore Guyana.

The company's bunkering procedure is designed to ensure sure that transferring fuel or base oil on board is done safely and efficiently, whether onshore or offshore. The Master is in charge of the overall process, while the Chief Engineer ensures that only qualified people handle the operation. Before the commencement of bunkering, a checklist is completed, and safety precautions such as not overfilling tanks and knowing emergency controls are observed.

The company ensures that all fuel supplied meets established quality standards, with representative samples taken and securely stored for future reference. Delivery records are maintained for several years to support traceability and compliance. The Master and Chief Engineer work in close coordination to guarantee that sufficient fuel and oil are available for ongoing operations, with daily consumption carefully monitored and logged. Adequate safety margins are maintained to ensure the vessel can always reach the next port, taking into account weather conditions, vessel stability, and other operational risks. All documentation related to bunkering is systematically stored in a centralized system, clearly labeled to support efficient data management. These measures collectively promote safe operations, effective planning, and full accountability.

### 4.3. SHIP-TO-SHIP TRANSFER PROCEDURE

The company emphasizes contingency planning, use of specialized equipment, and careful pre-planning to ensure safe ship-to-ship transfers by securing necessary resources.

#### RESPONSIBILITY

Ship operators and agents are responsible for securing all necessary permissions for ship-to-ship (STS) transfers, particularly within port authority jurisdictions. Transfers follow the STS Guide, with safety as the top priority. Masters are advised of documentation requirements, including customs, well in advance. The quantity to be transferred is agreed between both masters in line with operator instructions. Both masters must agree on transfer procedures and oversight, while each remains fully responsible for the safety of their own vessel, crew, and cargo.

#### COMMUNICATIONS

The STS Guide provides advice on establishing communications at the earliest opportunity, and provides an example of an initial voyage instruction. Satisfactory communication between the two ships involved is an essential requirement for a

successful ship to ship transfer operation. Neither approach and mooring, nor unmooring, should be attempted until satisfactory communications are established, and if during cargo operations there is a breakdown of communications on either ship, all operations will be suspended until they are satisfactorily restored.

## WEATHER CONDITIONS AND LIMITATIONS

It is impracticable to lay down the limits of weather conditions under which STS transfer operations can safely be carried out. All available weather forecasts for the area are obtained before the operation begins. Thus, any decision to proceed will be taken in the light of best available knowledge.

## PRE-TRANSFER PREPARATIONS ON EACH SHIP

Preparations on each ship in readiness for the operation, the approach of the ships to each other, berthing and mooring of the ships and safety procedures when alongside, are all well described. When preparing cargo loading and discharging plans, due regard will be given to ensuring that adequate stability is maintained, hull stresses remain within sea-going limits, and that free surface effects are kept to a minimum throughout.

The cargo operation will be planned and agreed between the two ships, and will include information on the following, where applicable:

1. Quantity of each grade of cargo to be transferred, and the sequence of grades.
2. Cargo data from data sheets, and copies of the data sheets if available.
3. Details of cargo transfer system to be used, number of pumps and maximum pressure.
4. Initial, maximum and topping off pumping rates. The discharging ship should be informed by the receiving ship of the flow rates required for each of the different phases of the cargo operation.
5. Notice of rate change, and transfer shutdown procedures. If variations in transfer rate subsequently become necessary due to circumstances on one ship, the other should be advised accordingly.
6. Emergency and spill containment procedures.
7. Watch or shift arrangements.
8. Critical stages of the operation.
9. Local and government rules that apply to the transfer.

## CARGO TRANSFER OPERATIONS

Before cargo transfer, pre-transfer checks and the Ship/Shore Safety Checklist are completed. Hoses are checked to ensure they are of correct length, in good condition, and suitable for the cargo, with flow rates within manufacturer limits. Vapour return systems help reduce atmospheric release and crew exposure, with flame arresters provided as needed, and mandatory for certain cargoes under IMO Codes. Each ship are assign personnel to monitor hoses and cargo pumps, using radios if necessary, and regularly log and compare transfer rates. Any discrepancies are addressed immediately, suspending operations if required. Ballast operations are maintained stable freeboard and

excessive trim, or listing are avoided, with clean ballast discharged overboard. Other ballasts are retained onboard or transferred appropriately. Close attention is paid to safety, monitoring, and coordination ensuring a secure and efficient ship-to-ship operation.

## COMPLETION OF CARGO TRANSFER

After cargo transfer, hoses are fully drained and securely disconnected, with manifolds and hoses properly blanked. If required, relevant authorities are notified of completion, unmooring times, and any navigational warnings will be cancelled.

## 5.0. ENVIRONMENTAL HEALTH AND SAFETY

### 5.1. HEALTH AND SAFETY

The Sar Odin Vessel was designed with Occupational Health and Safety as a priority and shall be operated with the same priority. In this regard, all processes will be done using safe procedures. All staff on the facility shall be trained on their specific scope of work and shall be attired in the appropriate Personal Protective Equipment (PPE).

### 5.2. WASTE MANAGEMENT

Waste will be generated by this operation. These types of waste may include plastic, food wastes, domestic wastes, cooking oil, operational waste, e-wastes, cargo residues and hazardous wastes.

To mitigate the effects of waste, project wastes will be reduced, recycled, and reused where practicable, with the remainder being disposed of using a qualified and licenced waste disposal. The vessel is certified in compliance with Annex V of the International Convention for the Prevention of pollution from ships. Some of the facilities included in the vessel that contributes to mitigating the effects of waste are:

- The implementation of a garbage management plan
- Reduce, re-use and recycle where practical
- Use of a waste compactor
- Use of a Sewage treatment plant on-board
- Equipped with incin
- Pipeline to discharge sewage to a reception facility.
- Structure, equipment, systems, fittings, arrangements and material of the ship and the condition complying with the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978.

### 5.3. NOISE EMISSIONS

Noise emissions from the operation of this vessel are expected to be generated from the following key sources:

- Engines
- Pumps and compressors
- Cargo handling equipment
- Cooling systems
- Deck machinery
- Hull vibrations and
- Communication systems such as horns, alarms, alerts.

To prevent the effect of noise emissions, the following mitigation measures shall be taken:

- Earmuffs will be provided for workers who are exposed to loud noises.
- Silencers for equipment will be used if necessary.
- Regular maintenance of equipment will be done.

It is anticipated that the noise generated will be insignificant and below the Guyana National Bureau Limits for commercial operations during the day and night (80 dBA and 65dBA).

### 5.4. AIR EMISSIONS

Air emissions from the operation of this vessel are expected to be generated mainly from the use of fossil fuel to power the ship, its equipment, lights, heating and cooling, appliances, and other devices on board.

These emissions are expected to be insignificant and below the World Health Organisation guideline limits. The company is certified under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978.

The following mitigation measures are in place to reduce air emissions:

- The company ensures that equipment, systems, fittings, arrangements and materials fully comply with the requirements of Annex VI of the Convention.
- Fire-extinguishing systems and equipment containing ozone-depleting substances, other than hydro-chlorofluorocarbons (HCFCs), are installed.
- The marine diesel engines installed on this ship are in accordance with the requirements of regulation 13.
- When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses: fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.10% m/m.
- The sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m.
- When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses: fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.50% m/m.

### 5.5. WATER QUALITY

Ballast water, if released offshore may impact water quality and marine ecosystems by introducing excessive nutrients, chemical contaminants and increased turbidity. To prevent such negative impacts, the company adheres to its Ballast Water Management Plan and is also certified in ballast water management in compliance with the provisions

of the International Convention for the Control and Management of Ships' Ballast Water and Sediments. A few of these mitigation measures include:

- Treatment of ballast water
- Sampling to ensure the water meets compliance with the exchange standard
- Logging of information regarding ballast water management for a period of 2 years.
- A comprehensive system maintenance schedule is implemented and adhered to.
- Uptake of ballast is done to avoid sediment accumulation.
- Volume of sediment is monitored on a regular basis and is removed based on the availability of reception facilities among other determining factors.
- Crew members are trained in water management on board.

### 5.6. SPILL MANAGEMENT

During the transfer process, a spill may occur onboard the vessel or in the water. This may result in the environmental impacts such as shoreline pollution, damaging breeding grounds for fishes, altering salinity and turbidity, bioaccumulation, and economic loses due to clean up activities. The following mitigation measures are implemented to prevent such effects:

- Adherence to the approved shipboard pollution emergency plan for oil and noxious liquid substances prepared according to IMO guidelines. This focuses on oil spill prevention, response and reporting.
- Adherence to the ship-to-ship transfer procedure

## 6.0. CUMULATIVE IMPACTS

Other support vessels for the Uaru Project can cumulatively impact the environment through repeated oil spills, bilge discharges, and fuel leaks, affecting water quality and marine life. Continuous engine operations produce air emissions and underwater noise, disturbing local ecosystems. Vessel movements and anchoring may disrupt seabed habitats and benthic communities. Repeated operations increase the risk of accidents or spills if safety measures are not strictly followed. Over time, these activities can also affect fisheries, coastal communities, and contribute to overall resource consumption.

## 7.0. ENVIRONMENTAL CERTIFICATIONS

In contributing to the protection of the environment by mitigating the environmental effects of the operations, the company has been audited and possess the following certifications among others:

- International Oil Pollution Prevention Certificate
- International Air Pollution Prevention Certificate
- International Sewage Pollution Prevention Certificate
- International Energy Efficiency Certificate
- International Ballast Water Management Certificate
- Garbage Management Certificate
- In-Water Authorisation from the Maritime Administration Department (MARAD).
- Approved Shipboard Oil Pollution Emergency Plan (SOPEP) of the Fuel Vessel\ Tanker.