



# 10 PRINCIPLES

## TO DECARBONISE THE OSV INDUSTRY

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# PREFACE

The shipping industry as a whole accounts for 3% of global greenhouse gas emissions. Decarbonising the maritime industry in line with the Paris Agreement is essential to fighting climate change, and key to facilitating the decarbonisation of many other industries. This requires systemic industry-wide change, the complexity of which cannot be understated.

Many aspects of the transition to zero-carbon shipping are necessarily long-term endeavours, such as the development of green technology for a new generation of vessels. However, certain short-term changes can be implemented to help accelerate this transition over the coming decade, until such technological solutions have matured.

As a result, in 2021, the Forum for Decarbonising the OSV Industry was established through a collaborative effort between Chevron, Shell, TotalEnergies, Equinor, ABS and Maersk Supply Service. This forum was formed with the sole focus of reducing carbon emissions in the offshore support vessel industry. It arose from the need for a collective and proactive approach among vessel owners and charterers to tackle the specific challenges of decarbonising the OSV sector today.

This whitepaper lays out the resulting principles agreed upon to decarbonise current working practices and facilitate the transition to a greener, carbon-neutral OSV industry.

To this end, the forum participants agree that 'All Steps Matter' in the journey to decarbonisation. Simply put, even incremental measures are valuable and worth pursuing: no action is too small to consider if it can reduce CO<sub>2</sub> emissions.

# GLOSSARY

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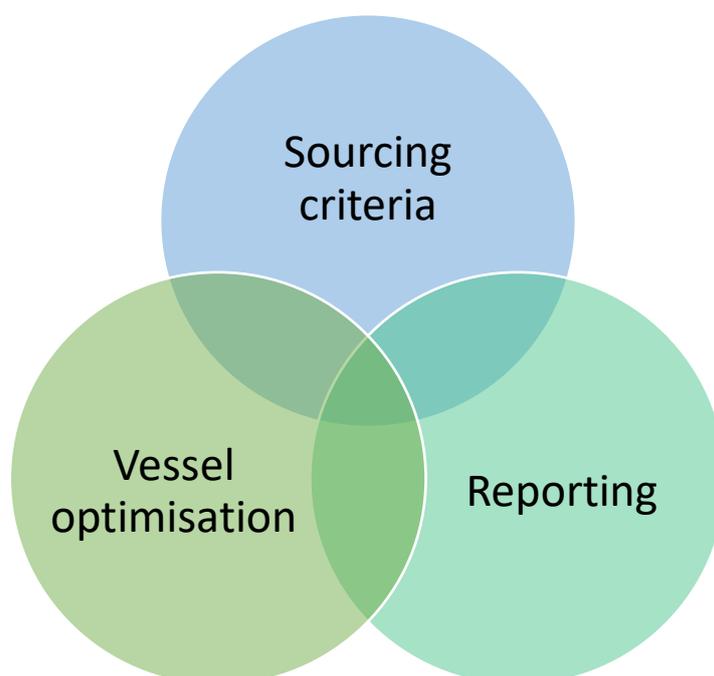
<b>GHG</b>	Greenhouse gases, including Carbon Dioxide (CO <sub>2</sub> ), Nitrogen Oxide (NOx) and Methane.
<b>Paris Agreement</b>	The legally binding international treaty set out in 2016 to avoid dangerous climate change by limiting global warming to well below 2° Celsius and pursuing efforts to limit it to 1.5° Celsius.
<b>OSV</b>	Offshore support vessel.
<b>Charterer</b>	The operator chartering offshore support vessels, usually an energy company.
<b>(Vessel) owner</b>	The company or private individual in ownership of the vessel or fleet.
<b>Sourcing criteria</b>	The requirements set out by a charterer to the vessel owner, stating the technical specifications a vessel must fulfil for a particular operation and any other requirements that a vessel owner should meet.
<b>Scope 3 emissions</b>	<p>The Greenhouse Gas Protocol, the world’s most widely used greenhouse gas accounting standards, defines these as the “indirect emissions that occur in a company’s value chain.”</p> <p>The Protocol also defines <b>Scope 1 emissions</b> as the “direct emissions from owned or controlled sources”, and <b>Scope 2 emissions</b> as the “indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company.”<sup>1</sup></p>
<b>‘Hurry up and wait’</b>	A commonly used expression in the OSV industry, referring to charterer requests for a vessel’s urgent arrival on location, increasing fuel consumption and emissions, only to find it is not immediately needed.
<b>Capex</b>	Capital expenditures.
<b>Opex</b>	Operational expenditures.
<b>ESG</b>	Environmental, social, and governance criteria are a set of standards to evaluate an organisation’s operations, corporate behaviour and contribution to society.

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<sup>1</sup> [https://ghgprotocol.org/sites/default/files/standards/Scope3\\_Calculation\\_Guidance\\_0.pdf](https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf)

# OVERVIEW

In this paper, we define ten overarching principles to support the decarbonisation journey in the OSV industry. These ten principles cover three areas: sourcing criteria, vessel optimisation and reporting.



- 1. Sourcing criteria** are needed from the charterers to support and drive the OSV industry to be proactive on the decarbonisation journey and create a clear alignment of expectation.
- 2. Vessel optimisation** refers to the tools and methods with which we work towards decarbonisation. There are four focus areas: behaviour, fuel, technical upgrades, and shore power and offshore charging solutions.
- 3. Reporting** lays the groundwork for any decarbonisation plan. It is with transparent and standardised data sets that we can track our progress towards ambitious, strong, yet feasible targets. When diving into reporting, we look at the two areas where principles should be agreed upon: data standardisation and transparency when reporting data.

By addressing all three areas, we will accelerate the OSV industry's decarbonisation journey.

## Whitepaper exclusions

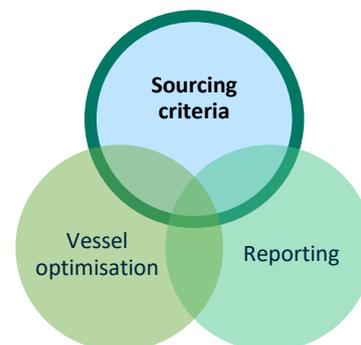
Certain topics will not be covered by this whitepaper, though they will need to be explored in the future.

Any newbuild will need careful consideration, but the design for the next class of low-carbon/fuel-efficient offshore support vessels will need to be explored in another more technical paper. The offshore support vessel design of the future will depend on factors such as the evolution of ocean industries, the tasks likely to be assigned to offshore vessels, efficiency of engine design, and the supply of alternative fuels.

The topic of carbon credits in the OSV industry also needs time to mature. Although the strategy will always focus on reducing actual emissions, the question remains as to how carbon credits could play a role in further stimulating decarbonisation within the OSV industry.

# SOURCING CRITERIA

As charterers work towards mapping, tracking and subsequently reducing Scope 3 emissions, the way they define their requirements moving forwards will drive GHG reductions. Through their buying power, charterers directly affect the acceleration of the decarbonisation journey of the OSV industry.



Driving industry behaviour is not new to charterers, as their focus on safety compliance was the catalyst for implementing the high safety standards that all OSV companies now adhere to today.

Similarly, a competitive tendering process would introduce new decarbonisation expectations that vessel owners would have to meet. In the power balance of decarbonisation, charterers not only drive the standards for carbon-reducing measures but can also set the pace at which that decarbonisation journey accelerates.

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**Principle 1** It is recommended that tender documents explicitly address the requirements regarding efficiency of operations and related emissions.

**Principle 2** The operator should express commitment and willingness through contracts designed to recognise documented emission reductions.

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## FURTHER CONSIDERATIONS

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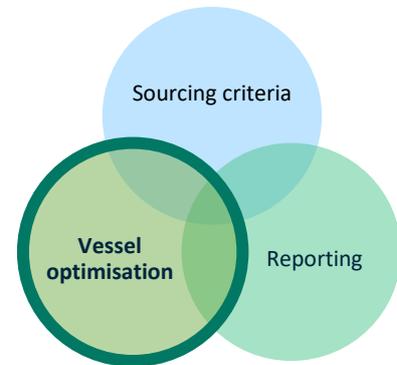
### The owner-operator dilemma

Vessels are chartered by an operator, who does not make investment decisions regarding vessel energy efficiency (such as battery installations), even though they could benefit from such upgrades (for example through reduced fuel costs). The owner, who does oversee such investment decisions, does not stand to gain direct financial benefit. Decarbonisation is a complex and costly undertaking, which is why this owner-operator dilemma poses a challenge to the decarbonisation journey.

# VESSEL OPTIMISATION

Until the stage at which a new generation of offshore support vessels are designed, funded and built, the focus must be on optimising the current fleet. Here are four areas that impact OSV emissions:

- Behaviour and culture
- Fuel
- Technical upgrades
- Shore power and offshore charging solutions



## Behaviour and culture

There are three functions that contribute to behavioural optimisation for reducing emissions during operations:

- 1. Vessel crew** When a vessel's crew are engaged with and motivated by the issue of decarbonisation, they are more likely to proactively implement operational measures to reduce vessel emissions on an ongoing basis.
- 2. Vessel charterer** While the crew influence many aspects of the vessel operation, a commonly faced difficulty is "hurry up and wait" logistics. Charterers plan vessel movements and issue sailing instructions, including vessel speed requirements. Like vessel crew, charterer's personnel involved with logistics operation should be aware of the emissions impact of their sailing instructions, and systems should be in place to incentivise and encourage minimisation of an operation's carbon footprint.
- 3. Vessel owner** The project management team within the vessel owning company can impact emissions by aligning with the charterer's fleet team right from the preliminary stages.

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**Principle 3** Vessel shoreside management, sailing officers and crew should be trained regularly in operational emissions mitigation, so as to promote a culture of environmental accountability, since they are instrumental in ensuring energy efficiency and reducing carbon emissions.

**Principle 4** There should be close collaboration between the vessel owner and the charterer to reduce ‘hurry up and wait’ logistics.

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## FURTHER CONSIDERATIONS

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### Safety

Safety has become integral to the offshore industry. It is a fundamental requirement that cannot be compromised or deprioritised under any circumstance. We must therefore strive to develop decarbonisation principles that work in tandem with our safety principles, rather than competing with them. Not only that, but we must instil a climate-oriented culture that is protected, upheld and integral to the OSV industry to the same degree as the current safety culture and standards.

### Fuel

While there are many low-carbon fuels being researched and tested, biofuel is an option that already works with existing fleets and can therefore serve as a transitional fuel. Biofuel and other low-carbon fuels allow for operators to reduce carbon emissions in a way that moves financing from Capex to Opex.

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**Principle 5** Biofuel and other low-carbon fuels are a viable option in the transitional phase of reducing emissions from OSVs and should be implemented when practically possible or supply available, despite a premium.

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## Technical upgrades

There are two forms of technical upgrades:

### 1. Vessel upgrades

These are made directly to the vessel to support overall reduction of fuel consumption and emissions. These might include hull optimisations, batteries, power management systems, variable frequency drives, etc. Testing various technical upgrades allows us to refine what the next OSV newbuild might look like and keeps us in line with the All Steps Matter approach: no step is too small to take.

### 2. Equipment upgrades

These upgrades come in the form of any additional or subcontracted equipment required to prepare a vessel for an operation. This might be for a short project or an upgrade needed for a long-term charter. For example, the addition of an ROV, launch and recovery system (LARS), or large deck spreads can all be energy consuming. This form of upgrade should always be considered in conjunction with carbon emissions reduction.

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### Principle 6

Vessel owners should take a proactive role to reduce emissions, through continuous upgrading of their existing fleet with emissions-reducing technology in line with the All Steps Matter approach.

### Principle 7

Decarbonisation is a collaborative effort and energy efficiency should always be a deciding factor for upgrades. Charterers can accelerate decarbonisation by supporting technical upgrades and investments either directly or indirectly through contractual terms.

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## Shore power and offshore charging solutions

The environmental and financial cost of emissions from stationary vessels is high, both in terms of the CO<sub>2</sub> released and the money spent on fuel for idle ships. Moreover, when in port, the pollution extends beyond emissions to particle and noise pollution, which can be of equal concern to shoreside communities around the globe. Shore power and offshore charging, when available, can therefore be beneficial to local communities and operators alike by eliminating vessel noise and air pollution and saving fuel costs.

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**Principle 8** All vessels should be equipped to connect to power from shore or from offshore charging stations when available. Vessel owners and charterers should work jointly to promote shore power infrastructure and use of shore power.

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### FURTHER CONSIDERATIONS

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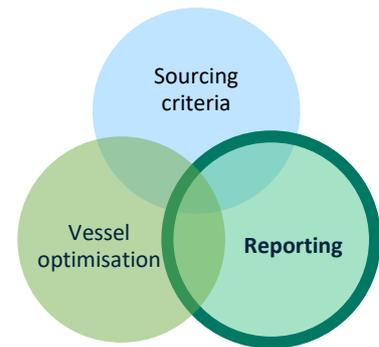
#### Shore power need not be green

An obvious question that emerges from the discussion of shore power is the source of the power itself, which, in many countries, is fossil fuels. If the source of shore power is not green from day one, then why have a principle to support the use of shore power? What is the case for using this as a charging solution? The fundamental premise is that by relocating the emissions upstream, we address the immediate pollution of idle vessel, while also recognising the need for shore power infrastructure in transitioning to clean energy sources. It is still a step in the right direction.

# REPORTING

Gathering data and reporting on the carbon emissions and energy efficiency of vessels enables us to measure, correct and improve our sustainability performance and further reduce our emissions. To do so, we need principles on how to approach the following:

- Standard metrics
- Transparency



## Standard metrics

Standards for reporting create a common language for measuring and comparing performance against expectations. It is imperative to set standards for what should be measured in order to track meaningful progress in decarbonisation.

Today, data collection is often a manual, time-consuming task. Further, manually inputted data is often unreliable, which has been a major concern for operators and a setback to decarbonisation.

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**Principle 9** Vessel owners should move toward equipment upgrades to support automated vessel performance reporting and emissions data.

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## FURTHER CONSIDERATIONS

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### Lack of international regulation results in a lack of standardisation

Within the vast scale of the maritime industry, offshore support vessel emissions represent only a drop in the ocean compared to the total greenhouse gas emissions related to shipping. It is not surprising, then, that OSVs are not covered by the international maritime bodies that create industry-specific regulations and standards; the segment is simply too small. Often classed alongside tugs and dredgers, the complex work scopes of OSVs are not taken into consideration and thus fall under the radar. This leaves the OSV sector without standardisation defined by an international entity, with each OSV company setting their own standards.

## Transparency

When companies publish overviews of their sustainability performance and emissions data, they openly inform their customers of their efforts. This transparency signals their intention to reduce their emissions and creates a tacit commitment to do so.

There are two reporting areas of interest:

- 1. ESG Transparency** This is an overall transparency on how a company performs on ESG factors. This promotes accountability, which builds trust. This promotes accountability, which builds trust in a company's uprightness.
- 2. Transparency of vessel performance data** This can be a motivating factor amongst seafarers to reduce fuel consumption and carbon emissions, as many mariners are data driven. This also provides clients with the data to better select a vessel with a lower carbon footprint.

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**Principle 10** Performance data should be transparent and shared in a standardised format, ensuring credibility and ease of access.

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# CALL TO ACTION

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- Principle 1** It is recommended that tender documents explicitly address the requirements regarding efficiency of operations and related emissions.
- Principle 2** The operator should express commitment and willingness through contracts designed to recognise documented emission reductions.
- Principle 3** Vessel shoreside management, sailing officers and crew should be trained regularly in operational emissions mitigation, so as to promote a culture of environmental accountability, since they are instrumental in ensuring energy efficiency and reducing carbon emissions.
- Principle 4** There should be close collaboration between the vessel owner and the charterer to reduce ‘hurry up and wait’ logistics.
- Principle 5** Biofuel and other low-carbon fuels are a viable option in the transitional phase of reducing emissions from OSVs and should be implemented when practically possible or supply available, despite a premium.
- Principle 6** Vessel owners should take a proactive role to reduce emissions, through continuous upgrading of their existing fleet with emissions-reducing technology in line with the All Steps Matter approach.
- Principle 7** Decarbonisation is a collaborative effort and energy efficiency should always be a deciding factor for upgrades. Charterers can accelerate decarbonisation by supporting technical upgrades and investments either directly or indirectly through contractual terms.
- Principle 8** All vessels should be equipped to connect to power from shore or from offshore charging stations when available. Vessel owners and charterers should work jointly to promote shore power infrastructure and use of shore power.
- Principle 9** Vessel owners should move toward equipment upgrades to support automated vessel performance reporting and emissions data.
- Principle 10** Performance data should be transparent and shared in a standardised format, ensuring credibility and ease of access.

