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Metocean Campaigns for Various Wind Farm Sites in the Dutch North Sea

ANNEX 5 - Section II

REMUNERATION



Colophon

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1 Introduction

1.1 Remuneration document

This document details the Remuneration as part of the Agreement that Contracting Authority has awarded to Contractor for carrying out Metocean measurements at various wind farm sites in the Dutch North Sea.

2 Terms and definitions

2.1 Rates, prices and percentages

2.1.1 *Currency*

The rates and prices set out in the Pricing Schedule in this document (Section II) are in Euros (€).

2.1.2 *Taxes (VAT)*

The rates and prices contained herein exclude Value Added Tax that shall be charged in accordance with prevailing legislation. No Value Added Tax is levied on work outside the 12 Nautical Mile Zone.

2.1.3 *Applicable rate with regard to large/ small fluctuating quantities*

The rates and prices contained herein shall apply equally to executing the Work in large, small or fluctuating quantities.

2.1.4 *Variations*

Should the Contracting Authority exercise their entitlement to vary the Work, then the amended Work shall be valued by the Contracting Authority at the rates and prices contained herein insofar as it is fair and reasonable to do so or, where appropriate on a pro-rata basis and adjust the Contract Price accordingly.

2.1.5 *Contract Price*

The Contract Price set out herein shall be the remuneration payable to the Contractor for the Work set out in the Contract and shall take full account of the liabilities and obligations of the Contractor under this Contract.

2.1.6 *Scope of Work*

The Scope of Work set out in this Section II relates to the Scope of Work as detailed in Section III of this Contract.

2.1.7 *Rates and prices not foreseen*

When Contracting Authority is extending the Scope of Work and these services are not foreseen in Section III - the Scope of Work, the Contracting Authority and the Contractor shall agree, acting reasonably, additional rates and prices as required, taking full account of rates and prices for similar Work and prevailing market conditions.

All new rates, prices and percentages when approved by the Contracting Authority shall remain valid for the duration of the Agreement.

2.1.8 Rates to include all contractors costs

All rates and prices set out in **Fout! Verwijzingsbron niet gevonden.** herein are inclusive of all the Contractors costs of whatever nature, unless otherwise agreed, associated with performing the Work in accordance with the Contract and shall include but not be limited to expenses, management time, overheads, labour (including but not limited to the cost of all productive and non-productive labour), supervision, direct remuneration and payroll related costs (including but not limited to salaries, National Insurance contributions or equivalent in the country of levy, payroll taxes, welfare funds, sick pay, bonus and incentive payments, statutory and annual holidays, health plans and the like), plant & equipment (including but not limited to maintenance and repair), goods, materials and consumables, delivery and collection charges, customs dues.

2.1.9 Fixed rates and prices

The rates and prices contained herein shall be fixed for the entire duration of the Contract including any extensions of time to the Contract term by way of Variation.

2.2 Other definitions

Accepted mobilisation date, see paragraph 3.1.4.

Data Availability. Post-processed data availability. For data given at specified intervals, this is the number of reliable data points at the specified interval (excluding NaNs and 999's and intermediate data points between the specified interval) divided by the potential number of data points in the period considered. If the period is one month, the month concerned has 30 days and the interval is 10 minutes, then the potential number of data points is $30 \times 24 \times 6 = 4320$. For continuous data (e.g. FPOD or Bat and Bird counts) it is the time that the system is **demonstrably** operating divided by the duration of the period being considered.

Environmental & ecological data. The data specified in Tables 4 and 5 of Annex 5, Section III Scope of Work.

Metocean data. The data specified in Tables 2 and 3 of Annex 5, Section III Scope of Work.

Measurement system this is a cluster of instruments deployed at the same location and may consist e.g. of a floating lidar system, a surface wave riding buoy and a seabed mounted ADCP.

Mobilisation fee. See paragraph 3.1.4.

Rounded means rounded up or rounded down to the nearest integer.

Base Fees do not include optional items, bonuses or maluses and systems with 100% weighted data availability

System Monthly Base Fee. This is the system monthly fee assuming 100% data availability or system availability excluding bonus or malus payments. This is calculated as 40% of the Total Monthly Base Fee for metocean data and 50% of the total monthly base fee for the compulsory environmental and ecological data. Note that for the metocean data there is an allowance of 20% of the Total Monthly Base Fee for the spare system.

Total Monthly Base Fee. This is the monthly fee given by the tenderer in cells D8 and E8 respectively of the rates sheet in Annex III for metocean data and required environmental and ecological data respectively. This covers the costs of both systems and the spare systems including hardware, delivering the data and all other associated costs not explicitly allowed for elsewhere in the rates sheet. This fee is for 100% data availability excluding any applicable bonuses and maluses.

Virtual Contract Price. This is the price used for the comparison of proposals. It is made up of the sum of: the project documentation fee; the Lidar validation fee; the mobilisation fee; 24 monthly payments for metocean data and reports; two 12-monthly payments for environmental and ecological data; 2 relocation fees; 6 contributions to redeployment and the price for the optional environmental and ecological data.

Redeployment: Re-installation of (repaired) equipment at the correct location following an incident that displaced and / or damaged the equipment.

Relocation. Planned change of location of the measurement equipment on request of Contracting Authority and continuation of the measurement campaign at the new location.

Weighted Monthly Post-Processed Data Availability – applicable for metocean data, see paragraph 3.2.1

Weighted Periodic Post-Processed Data Availability – applicable for environmental & ecological data, see paragraph 3.2.4

3 Pricing

Fout! Verwijzingsbron niet gevonden. sets out the elements of the Virtual Contract Price together with rates and prices for all variations to the Work. All costs related to carrying out the Work but not specifically mentioned in **Annex 3 Rates** are included in the specified rates. Annex 3 Rates and the Virtual Contract Prices follows the assumption that the measurement campaign will last 24-months and two relocations will take place during this time. However, the duration of the measurement campaign and the number of relocations could vary. Therefore, no rights can be derived from the Virtual Contract Prices.

Please note that the Tenderer has to submit a completely filled-in **Annex 3 Rates** workbook (sheet rates) for every Lot in which Tenderer participates. Please also check the sheet 'Rates_example' in this workbook. Zero points or N/A from the rates sheet (cell C58) will lead to disqualification. If the lot number is not displayed in the cell under this this will also lead to disqualification. The lot number can be selected from the pull-down menu in cell C3 of the rates sheet.

3.1 Payment scheme

Many of the payment amounts are calculated from the Total Monthly Base Fee. There is a Total Monthly Base Fee for the environmental & ecological data and the metocean data (see paragraph 2.2). Provision of optional environmental & ecological data is not included in the base fee.

The payments below will be made in the following order:

- Project documentation fee (including for PEP, PQP and HSE)
- Floating Lidar validation report fee.
- Mobilisation fee, payable per system.
- Monthly fee contingent on delivery of accepted metocean data and accepted final versions corresponding reports. Note that the last three monthly fees will be withheld pending availability of the accepted final report and accepted final data deliveries.
- Periodic fee contingent on delivery of environmental & ecological data and accepted final versions of corresponding reports. This will be 12-monthly.
- Possible relocation fee. Fee payable if measurement system is relocated on request of Contracting Authority.
- Possible Contracting Authority contribution to re-deployment after incidents that are demonstrably outside the control of the contractor. Only payable subsequent to third incident

3.1.1 Example of monthly payment calculation

See sheet 'Data_availability_eg' in Annex 3, for an example of monthly payment calculation. This example is based on fictional numbers assuming no malus for late delivery of reports and data but including bonuses and maluses for data availability. It also assumes the same data availability from each system.

The sheet 'Rates_example' in Annex 3 gives the base fee input for the workbook "VS67_MC_Annex 5 - Section IIa Example data availability and fee calculation_F.xlsx", which is considered to be an

Appendix to the current document. The latter workbook illustrates how the fee payment would be calculated using the remuneration, bonuses and maluses described in this document but is based on fictive data or data provided in a previous campaign. *Note that it is for illustration only and that the current document takes precedence over the example calculation.* The workbook has multiple sheets, giving examples of data availability from the two sets of measurement instrumentation (system A and system B) both for metocean data and for environmental and ecological data (name code EE). An example is given of remuneration for the metocean data for a period of one month. The example for the remuneration for the environmental and ecological data is for a 12-month period.

3.1.2 Project Documentation Fee

The contractor is entitled to invoice for a project documentation fee once the project documentation has been accepted by the Contracting Authority. This project documentation fee is fixed at the Total Monthly Base Fee. The requirements for the project documentation are specified in paragraph 3.2.2 of the scope of work document (Annex 5 – Section III).

3.1.3 Fee for floating lidar validation

The contractor will be entitled to invoice for the floating lidar validation when this has been completed and the final validation report has been accepted by the contracting authority. This fee is fixed at 50% of the Total Monthly Base Fee for each of the three floating lidar systems. The validation requirements are set out in paragraph 2.4.1 of the scope of work document (Annex 5- Section III).

3.1.4 Mobilisation Fee

The contractor will be entitled to a fee for the mobilisation of the measurement systems. The mobilisation fee can be invoiced from the accepted mobilisation date.

The accepted mobilisation date is the first date when:

- the floating lidar validation report has been accepted,
- both measurement systems are deployed and are returning data and
- the spare system has been shown to be available.

The Contracting Authority will determine when the mobilisation has been fully completed and notify the Contractor.

The amount of the mobilisation fee is:

- Two times the Total Monthly Base Fee minus
- Any malus for late deployment (see §3.3.4.1)

Please note that the mobilisation fee is an integral part of the Contract Price. Please check **Annex 3 Rates** on its implementation.

3.1.5 The monthly payment for metocean data will consist of:

- 40% of the Total Monthly Base Fee for **each** of the two measurement systems deployed excluding environmental & ecological aspects (see 3.1.1), multiplied by the weighted availability achieved, (see paragraph 3.2.2). Plus
- 20% of the Total Monthly Base Fee for the spare measuring system multiplied by its availability (see paragraph 3.2.2). Plus or minus
- Any bonus or malus associated with weighted data availability, online data availability, delays to delivery of accepted reports and data sets.

If the period to the end of the first calendar month after the accepted mobilisation date is less than 15 days, contractor may report on these days the following month. Bonuses and maluses for these days will be computed proportionately.

3.1.6 12-monthly payment for environmental & ecological data and reports

A payment for environmental & ecological data and reports will be made on submission of the approved period reports and data deliverables at the end of each 12 month period. The environmental & ecological data payment will consist of:

- 12 times the all-inclusive monthly fee for environmental & ecological measurement systems deployed including post-processing, reporting and data delivery weighted by the availability of the environmental & ecological data over that period (see paragraph 3.2.4).

There are no bonuses or maluses associated with the environmental & ecological data other than the payment being in proportion to the data availability.

3.1.7 Relocation Fee

The Contracting Authority will pay a fee for a change of location of the measurement equipment (both measurement systems) on their request. Subsequently, the measurement campaign will continue at the new location. The virtual contract price allows for two relocations.

3.1.8 Contracting authority contribution to redeployment costs

In principle it is the responsibility of the contractor to ensure that the measurement equipment is at the correct location and functioning. However, if there are more than three events when buoys have to be redeployed due to Force Majeure (e.g. collision with a ship, or storms with a return period longer than 25 years), the Contracting Authority will make a contribution to the costs of redeployment for up to a further 6 cases of redeployment due to Force Majeure. Reasonable evidence of Force Majeure will be required for these payments to be activated (e.g. an incident report of a collision).

Redeployments due to technical failure of the equipment (fatigue in the mooring system, sensor failure) will not be covered.

The Contracting Authority will cover 70% of the actual costs up to a maximum of the redeployment contribution specified by the tenderer in the rates sheet (Annex III)

3.1.9 Final payment

Payments shall be made over the duration of the campaign except for the payments relating to the last three months of measurements. The final three months of measurements shall become payable after completion and approval of all Final Reports, raw data sets and post-processed datasets and after successful removal of all measuring equipment (including any equipment, including moorings and anchors, on sea floor). Note final payment will be adjusted based on availabilities calculated using the final, post processed datasets, if availabilities differ from the monthly calculated availabilities during the monitoring campaign.

There will be no recalculations or corrections made for previous bonuses/maluses related to availability as defined in paragraphs 3.3.4.2 to **Fout! Verwijzingsbron niet gevonden..**)

3.2 Availability

3.2.1 Data Availability

For a single item, data provided at discrete time steps data availability in a period is defined as the number of time steps with complete and reliable data (non NaN or 999) divided by the number of time steps in the period. Data points between the specified timesteps are not counted. For an item defined by multiple parameters (e.g. wave height, period and direction), all of these parameters must be available at a time step for it to count.

Data availability is calculated based on data sets after quality control has been carried out.

For data that is provided continuously, data availability in a period is defined as the duration that the system is demonstrably available to record data divided by the duration of the interval. Tenderers should specify how it will be shown that the system is available to measure.

Period

For the metocean data, data availability is assessed for complete calendar months. For the environmental and ecological data, it is assessed for each 12 monthly period.

For metocean data the period described above is generally one calendar month and for environmental and ecological data the period is 12 months. If the initial deployment or a redeployment after a force majeure event is in the first half of the month, reporting shall be due based on the end of that calendar month and rates, bonuses and maluses etc. shall be computed pro rata. If the (re)deployment is in the second half of the month, reporting and data delivery shall be included with those for the following calendar month and rates, bonuses and maluses etc. shall be computed pro rata. Data availability shall be computed over the number of hours between the completion of the deployment (valid data being recorded) and the end of the relevant calendar month.

3.2.2 Weighted data availability metocean data

Each month the Weighted Monthly post-processed Data Availability per measurement system will be calculated as a weighted average of the Monthly Post Processed Data Availability of each main dataset.

The weight factors shall be as follows:

1.Wind: (average of 10 min data availabilities taking into account measurements at all LiDAR monitoring heights up to and including 200m and near surface wind speed and direction measurements as per the LiDAR capability and/or Floating System ancillary measurement system)	45%
2.Wave: (average of 30 min data availabilities, excluding hmax and thmax)	20%
3.Current: (average over the water column)	20%
4.Water level	5%
5.Atmospheric Pressure	5%
6.Temperature: (average of air and sea surface availability)	5%

Calculation of the Weighted Monthly Post-Processed Data Availability starts from the starting date of the offshore metocean measurement campaign as specified in the proposal of the Contractor.

3.2.3 Availability of Spare System (20% of the all-inclusive fee for a full month)

The availability is defined as the number of calendar days availability divided by the number of calendar days in the month. It is up to the contractor to demonstrate that the system is available for deployment as soon as this is necessary and possible. This means that it should be immediately available for transport and deployment from its agreed storage location except for unavoidable minor activities such as replacing or charging of batteries. In practice this means a lead time of 24 hours or less. This does not have any link to vessel availability or weather windows.

3.2.4 Weighted Data Availability environmental & ecological data

Weighted Post-processed data availability will be calculated based on the average of the data availability for each parameter specified in Table 4 and those elements commissioned from Table 5 of the scope of work document (Annex 5, Section III).

3.3 Bonuses and maluses

3.3.1 General

The Contracting Authority has included a bonus and malus performance system as an incentive for a high availability of post-processed data, availability of online data and timely issuing of data and reports. The bonuses aim to reward high data return. The maluses aim to discourage poor data return and late reporting and unavailability of online data. Bonuses and maluses are not applicable for environmental & ecological data. Neither are Maluses applicable in the case that a system is offline due to documented Force Majeure (e.g. ship collision.)

The bonus and malus system applies in addition to payments being in proportion to the weighted data availability.

As described in section 3.3.2, the maluses will be applied additively up to a cumulative amount of 2.5 times the Total Monthly Base Fee during the contract. Once this threshold has been reached the maximum malus for metocean data to be applied in any month will be 10% of the Total Monthly Base Fee. The malus related to online data availability is only applicable if this is due to failure of the website or the data transfer system and is not applicable on top of other maluses associated with data availability.

If, other than through force majeure, the Contractor is permanently unable to perform the Work as agreed, the maluses will be immediately payable in full as specified above.

The maluses will be payable to the Contracting Authority, without prejudice to all other rights and claims.

The amounts of such maluses for which the Contractor may become liable are agreed as a genuine pre-estimate of the losses which may be sustained by the Contracting Authority in the event that the Contractor fails in its respective obligations under the CONTRACT.

In some circumstances the Contracting Authority and the Contractor may agree that maluses can be waived in exchange for Contractor taking measures to improve performance outside the originally agreed scope of work.

The maluses will be set off against amounts payable by the Contracting Authority regardless of whether the claim for payment of such amounts has been transferred to a third party.

Note that some maluses are related to late delivery of data and data reports. There is a malus which is explicitly related to late mobilisation of the measurement systems. If this is applicable, all other delivery times will be related only to complete months after the accepted mobilisation date.

The total monthly base fee referred to in the following sections is for the metocean data and does not include the base fee for environmental and ecological data.

3.3.2 Malus limitation

While Contracting Authority wants to encourage good performance and discourage bad performance, it also wants to limit the risks for the tenderer. Therefore, limits are imposed on the malus that can be incurred in the course of a contract. This limitation comes into working after a total malus amount of 2.5 times the Total Monthly Base Fee has been incurred. Above this amount, the total malus associated with each monthly payment will be limited 10% of the Total Monthly Base Fee. In the month that the malus limit is reached the malus limit shall be the maximum of the balance of 2.5 times the Total Monthly base fee due in that month and 10% of the total monthly base fee.

3.3.3 Bonuses metocean data

Each month the Contractor will receive a bonus for each system for which the Weighted Monthly Post-Processed Data Availability is higher than 95%.

The amounts of this bonus shall be 4% of the (Calendar month) System Monthly Base Fee (=40% of the Total Monthly Base Fee) for each rounded percentage of Weighted Monthly Post-Processed Data Availability above 95%.

3.3.4 Maluses

3.3.4.1 Start measurement campaign

The measurement campaign will be considered to have started on the accepted mobilisation date (see paragraph 3.1.4).

If the Contractor fails to start the measurements with both measurement systems on the agreed starting date in the Contract, the Contracting Authority will charge a malus of 2,000 Euro (two thousand euro) for each day that Contractor fails to start the measurements as agreed in the Contract.

3.3.4.2 Online data availability

The agreed data should be available for online publication within a reasonable period. The availability of this is defined as the number of data each month published at the agreed times divided by the potential number of data points to be published. This potential number shall exclude data that is not available for the monthly report. This means that the contractor will not be penalised twice in the case of instrument failure or a buoy being out of action due to bad weather.

A malus will be applied if the data is available for the monthly reports but not published online.

If the online data availability of a system drops below 85% a malus will be applied to the contractors fee. The monthly amounts of such maluses shall be 0.2% of the System Monthly Base Fee for each rounded percentage of Online Data Availability below 85%. This means that if the system has 100% data availability as defined in the next section but there is no online data return a penalty of 17% of the System Monthly Fee will be applied. The online data availability for the relevant month shall be calculated on availability of the monthly report and data delivery.

3.3.4.3 Data delivery and reporting

Data delivery and reporting must take place from the end of the first month 14 days after the accepted mobilisation date (see paragraph 3.1.4).

The deadline to provide the monthly deliverables is 8 weeks from the last day of the calendar month, including 10 working days for review of the draft report by the Contracting Authority and 5 working days for review of the adapted draft report by the Contracting Authority. These deliverables are:

- processed data and
- the Final Monthly Data Reports and
- the Monthly data

In case the review times are exceeded, the deadline will be extended by the number of days that the review is exceeded.

The Contracting Authority will charge a malus of 1% of the Total Monthly Base Fee for each working day that Contractor fails to provide the monthly deliverables as agreed. After 30 working days this percentage will be reduced to 0.5 %. This means that if Contractor is 18 weeks late providing the reports and deliverables, there will be a malus of 60%.

3.3.4.4 Availability metocean data.

The maluses for the metocean data availability will be applied per system for each monthly measurement period.

If the Contractor fails to provide a Weighted Monthly Post-Processed Data Availability per measuring system of at least 85%, a malus will be charged:

The monthly amounts of such maluses shall be 1% of the total monthly base fee for each rounded percentage of Weighted Monthly Post-Processed Data Availability below 85%. For availability below 70%, the additional malus shall be 0.5% of the total monthly base fee for each rounded percentage of Weighted Monthly Post-Processed Data Availability below 70%.

3.3.4.5 End of project malus

If the Contractor, before 8 weeks after ending of the 24 months of monitoring fails to provide the accepted 24-months processed dataset and the accepted Final Report, the Contracting Authority will charge a malus

The Contracting Authority will charge a malus of 1% of the Total Monthly Base Fee for each working day that Contractor fails to provide the monthly deliverables as agreed. After 30 working days this percentage will be reduced to 0.5 %. This means that if Contractor is 18 weeks late providing the reports and deliverables, there will be a malus of 60%.

3.3.5 Summary table bonuses and maluses

The table below gives a summary of the applicable bonuses and maluses.

- SMBF is System Monthly Base Fee (metocean data)
- TMBF is Total Monthly Base Fee (metocean data)

Table 1 Summary of bonuses and maluses – all amounts are maluses unless stated otherwise

Malus Limitations Threshold of cum. malus for malus limits to be applicable Limit on monthly malus after threshold	paragraph 2.5 * TMBF 0.1 * TMBF
Start of measurement campaign Basis Per day that accepted mobilisation date is delayed	paragraph N/A € 2000
Online data availability (only applicable when system is producing data) Basis Online data availability, $z < 85\%$ of data availability	paragraph 3.3.3.2 SMBF $\text{Round}(85-z) * 0.2\%$
Accepted monthly report and metocean data delivery Basis Delivery < 8 weeks from last day of month Each working day of delay up to 30 working days Each working day of delay beyond 30 working days	paragraph 3.3.4.3 TMBF 0% 1% 0.50%
Availability of metocean data Basis Bonus for weighted data availability, $x > 95\%$ Malus for weighted data availability, $x < 85\%$ Malus for weighted data availability $x < 70\%$	paragraph 3.3.4.4 SMBF $\text{Round}(x-95)*4\%$ $\text{Round}(85-x)*1\%$ $15\% + \text{Round}(70-x)*0.5\%$
End of Project delay Basis Delivery of accepted final report and accepted 24 month data set < 8 weeks after last measurement month Each working day of delay up to 30 working days Each working day of delay beyond 30 working days	TMBF 0% 1% 0.50%

Appendix 1: Example data availability and fee calculation.xlsx