VOLUME 4.2

FINANCIAL OFFER TEMPLATES

**LUMP SUM CONTRACTS**

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**VOLUME 4.2 — FINANCIAL OFFER**



### Introduction

The breakdown of the lump-sum price (Section 4.2.9) is the itemised list of prices showing the build-up of the price in a lump-sum contract. This breakdown of the lump-sum price does not derogate in any way to the clause stating that, in a lump-sum contract, the total contract price remains fixed irrespective of the quantity of work actually carried out.

The amounts due will be calculated:

<through the measurement of the percentage of works carried out in relation to the firm quantities of each item of the breakdown of the lump-sum price and by applying that percentage to the lump-sum price of the related item>

### General Provisions

Delivery of material and equipment on site does not constitute execution of works and execution will only be accepted when the material and equipment are actually placed and fixed in its final design location.

Each component of the Works has been broken into functional process zones and identified as items in the price schedules. For each functional process zone the Tenderer shall present the price he expects to be paid. Each price shall be for a complete operational item including all inter-process links and sub-processes.

The amounts entered shall be for works that are functional and complies with all health and safety needs in every respect. Notwithstanding the summary description provided for each item, the Tenderer must input a lump sum (LS), which shall be deemed to have taken full account of all requirements and obligations, whether expressed or implied, covered by all parts of this contract and to have priced the items herein accordingly. The amount must therefore include for all incidental and contingent expenses and risks of every kind necessary to design, procure, construct, complete and maintain the whole of the works in accordance with the contract.

Unless separate items are provided in the breakdown, rates and sums for each item include all management, design, approval, procurement, installation, and testing costs.

The amounts entered by the Contractor against all items in the breakdown must accurately reflect the cost of carrying out the work described in this schedule and the contract.

All other charges, not itemised in the schedules applicable to the contract as a whole must be spread across all amounts in the breakdown, whereas those applicable to specific sections of the contract are to be spread only over the items to which those sections refer.

The amounts entered in this schedule will be used for calculating payments and interim payments and for valuing variations. Partial payment of each item shall be estimated from the actual installation works completed.

Provisional sum or contingencies amount shall be as indicated in Section 4.2.8 and not be changed by the tenderer.

The Supervisor shall have the right to request further breakdown of the price provided for each item.

The item description given in the breakdown of the lump-sum price in no way limits the contractor’s obligations under the contract to provide all the works described elsewhere.

The prices of the breakdown of the lump-sum price include all incidental and contingent expenses and all risks necessary to construct, complete and maintain all works in accordance with the contract. Unless separate items are provided in the breakdown of the lump-sum price, prices include all costs involved in the various items of the breakdown.

The lump–sum price and the prices of the breakdown of the lump-sum price and of the daywork schedule are all-inclusive and include any non-exonerated tax or fiscal duty.

Provisional sums for use when works are to be executed on a daywork basis (Section 4.2.12) can only be executed by administrative order of the supervisor, in accordance with the terms of the contract.

Price revision is not applicable as stated in the Particular Conditions Art.13.8

### Correction of Arithmetical Errors

The responsive tender offers shall be checked for arithmetical errors and corrected in the following manner:

1. Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
2. Where there is a discrepancy between the values in the break-down of price (Section.4.2.9) and values in the summary (Section 4.2.8), the values in the break-down of price (Section.4.2.9) shall prevail.
3. If bills of quantities (or schedule of quantities or schedule of rates,. Section 4.2.9) apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
4. Where there is an error in the total of the prices in Section 4.2.9 either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

### Abnormally Low or High Tenders and Prices

Abnormally low or high tender prices will be identified, clarification sought from the bidders and the responses provided evaluated by the Contracting Authority. Depending on the validity of the responses, the relevant tenders may be excluded from Tender.

### Operational and Maintenance Costs

The Tenderer shall provide process and control equipment which shall achieve the optimum whole life costs for the whole facility, being the sum of the capital and operating/ maintenance costs.

The Tenderer shall calculate operational and maintenance costs for the process equipment provided and complete the provided schedules with the expected operating and maintenance costs.

### Process and Performance Guarantees

The Contractor is expected to provide process guarantee for achievement of the required effluent quality and dried sludge dry solids contents.

The performance of the different process equipment must also be guaranteed by the Contractor and for this purpose, the Contractor shall complete the process guarantee forms with values for the performance which he guarantees that the process equipment shall achieve.

The Contractor shall also guarantee the operating costs for the most important energy and chemical consuming or recovery processes.

Maintenance costs for major electromechanical items shall also be guaranteed and offered as a service contract.

The major equipment suppliers shall provide a draft maintenance service contract valid for 5 years after issue of the taking-over certificate to the future operator of the facility. The draft contract shall cover all maintenance and servicing of the equipment and associated components including provision and replacement of spare parts, consumables and all labour. The future operator of the facility shall have the right not to accept the draft contract and to engage other contractor for the same services.

### Penalties

In the case that at the end of the defects notification period, the measured operational cost as determined via the procedure described in Volume 3 Section 2, is still higher than the guaranteed value, the Contractor shall have to pay a penalty to the Final Beneficiary for the difference between the measured and guaranteed operational costs, multiplied by 14 (capitalisation factor for 20 year operational costs), to compensate for the losses caused to the Final Beneficiary.

### Financial Offer — Summary

This summary brings together the lump sum prices for the general items, the different components of this tender as presented in Section 4.2.9, the dayworks estimate from Section 4.2.12 and the additional provisional sum indicated in the following schedules.

Where a provisional sum (PS) has been entered, the amount indicated shall not be changed by the Tenderer.

The tender price shall be free of taxes, customs and import duties that are levied in accordance with the laws and regulations of the state of the Contracting Authority on the production, manufacture, sale and transport of the Contractor's plant, machinery, materials and supplies to be used on or furnished under the contract.

**Schedule 2.1 – Offer**

|  |  |
| --- | --- |
| **Description** | **Amount**  **[EUR]** |
| Schedule 3.1 - General Items |  |
| Schedule 3.2.1 Total of lump-sum price - WWTP Ciganski Ključ |  |
| Schedule 3.3.1 Total of lump-sum price - BWTP Mediana |  |
| Schedule 4.1 Total of dayworks — provisional sum |  |
| Contingency – 10% of Total Price |  |
| **TOTAL PRICE** |  |

### Financial Offer — Breakdown of the Lump-Sum Prices

This volume provides the financial offer of the tenderer and shall be completed to indicate his prices for the different items making up the different components of this Tender. All the schedules included in this volume shall be completed.

This Works Contract includes two components as follows:

* WWTP Ciganski Ključ
* BWTP Mediana (Backwash water treatment)

The two components shall be priced separately.

All items shall be considered complete with redundancy units, as described in the Technical Specifications

The price for each item offered by the Tenderer shall be a firm, non-revisable price in Euro.

Payment of all items except Dayworks and Provisional Sums, will be made on a lump‑sum basis.

The item descriptions given in the breakdown in no way limit the Contractor's obligations under the contract to provide all the works described elsewhere and are deemed to comprise all necessary items for a fully functional section which altogether result in a fully functional facility operating as a whole.

**Schedule 3.1 GENERAL ITEMS**

***Schedule 3.1 –General Items***

| **Item** | **Description** | **Unit** | **Amount**  **EUR** |
| --- | --- | --- | --- |
| 1.01 | Contractual Requirements  (Performance Security, Guarantees, Insurances, etc.) | LS |  |
| 1.02 | Setting up of Contractor’s site offices, compound, temporary fencing, etc, maintenance during Contract period, etc. - WWTP Ciganski Ključ | LS |  |
| 1.03 | Setting up of Contractor’s site offices, compound, temporary fencing, etc, maintenance during Contract period, etc. – BWTP Mediana | LS |  |
| 1.04 | Setting up of Supervisor’s site office, provision of Supervisor’s facilities, vehicles and transportation, running costs, maintenance during Contract period, etc. - WWTP Ciganski Ključ | LS |  |
| 1.05 | Setting up of Supervisor’s site office, provision of Supervisor’s facilities, vehicles and transportation, running costs, maintenance during Contract period, etc. – BWTP Mediana | LS |  |
| 1.06 | Provision of signboards, 2 units - WWTP Ciganski Ključ | LS |  |
| 1.07 | Provision of signboards, 2 units – BWTP Mediana | LS |  |
| 1.08 | Additional Surveys (Topographical, Geotechnical) - WWTP Ciganski Ključ | LS |  |
| 1.09 | Additional Surveys (Topographical, Geotechnical) – BWTP Mediana | LS |  |
| 1.10 | Preparation of Design for Building Permit (Projekat za građevinsku dozvolu) and drawings of the Works (to Supervisor’s review and approval ) - WWTP Ciganski Ključ | LS |  |
| 1.11 | Preparation of Design for Building Permit (Projekat za građevinsku dozvolu) and drawings of the Works (to Supervisor’s review and approval ) – BWTP Mediana | LS |  |
| 1.12 | Preparation of Design for Construction (Projekat za izvođenje) and shop drawings for the Works (to Supervisor’s approval) - WWTP Ciganski Ključ inc. access road | LS |  |
| 1.13 | Preparation of Design for Construction (Projekat za izvođenje) and shop drawings for the Works (to Supervisor’s approval) – BWTP Mediana | LS |  |
| 1.14 | Operation and Maintenance Manuals in English and Serbian Language- WWTP Ciganski Ključ | LS |  |
| 1.15 | Operation and Maintenance Manuals in English and Serbian Language – BWTP Mediana | LS |  |
| 1.16 | As-Built Drawings bi-lingual English-Serbian- WWTP Ciganski Ključ | LS |  |
| 1.17 | As-Built Drawings bi-lingual English-Serbian – BWTP Mediana | LS |  |
| 1.18 | Training - WWTP Ciganski Ključ | LS |  |
| 1.19 | Training – BWTP Mediana | LS |  |
| 1.20 | Start up, Commissioning, and Trial Operation - WWTP Ciganski Ključ | LS |  |
| 1.21 | Start up, Commissioning, and Trial Operation – BWTP Mediana | LS |  |
| 1.22 | Reinforcing, maintenance and rehabilitation of public roads used by construction traffic - WWTP Ciganski Ključ | LS |  |
| 1.23 | Reinforcing, maintenance and rehabilitation of public roads used by construction traffic – BWTP Mediana | LS |  |
| 1.24 | Assisted operation during Defects Notification Period + Tests after Completion for a total cumulative on-site presence of 3 months and distance support - WWTP Ciganski Ključ | LS |  |
| 1.25 | Assisted operation during Defects Notification Period + Tests after Completion for a total cumulative on-site presence of 3 months and distance support – BWTP Mediana | LS |  |
| 1.26 | Quality Assurance, Health, Safety and Environmental Protection | LS |  |
| 1.27 | Dismantling of site offices at end of Contract, etc. - WWTP Ciganski Ključ | LS |  |
| 1.28 | Dismantling of site offices at end of Contract, etc – BWTP Mediana | LS |  |
| 1.29 | Other general items (to be entered by the Tenderer) | LS |  |
| **Total Schedule 3.1 to Schedule 2.1 - Offer** | | |  |

**Schedule 3.2 WWTP CIGANSKI KLJUČ**

***Schedule 3.2.1 –Breakdown of lump-sum price WWTP Ciganski Ključ***

| **Item** | **Summary Description** | **Civil Works**  **(Lump Sum) EUR** | **MEICA Works (Lump Sum) EUR** | **Total Amount**  **EUR** |
| --- | --- | --- | --- | --- |
| 2.01 | Flood protection and general earthworks |  |  |  |
| 2.02 | Access road inc. drainage, kerbs, markings and traffic signs |  |  |  |
| 2.03 | 35 kV/10 kV electricity substation inc. transformers, breakers, contactors, control panels, excluding the 35 kV transmission cable |  |  |  |
| 2.04 | 10 kV /0.4 kV electricity substation inc. transformers, breakers, contactors, control panels |  |  |  |
| 2.05 | All 0.4kV local distribution panels inc. breakers, contactors, controllers, safety equipment |  |  |  |
| 2.06 | Liquid natural gas tank and pipework |  |  |  |
| 2.07 | Pumping station plus connections to Moravski and Medosevacki collectors, emergency overflow, discharge pipe to the inlet chamber of the WWTP, including electrical connection |  |  |  |
| 2.08 | Inlet gravity pipeline between Contract Boundary Inlet Manhole on the Left Bank Collector and the inlet chamber of the WWTP |  |  |  |
| 2.09 | Inlet chamber, coarse screens, septic tank sludge reception, emergency overflow, storm overflow, bypass, compactors, disposal bins |  |  |  |
| 2.10 | Covered storm retention tank inc. mixers and return pump station |  |  |  |
| 2.11 | Inlet pumping inc. flow meter |  |  |  |
| 2.12 | Fine Screens inc. bypass, compactors, disposal bins |  |  |  |
| 2.13 | Grit and grease removal inc. grit washer, grease separator, disposal bins |  |  |  |
| 2.14 | Flow division to primary tanks inc. bypass, flow metering and automatic sampling unit. |  |  |  |
| 2.15 | Primary settling tanks inc. all scrapers, bypass |  |  |  |
| 2.16 | Flow division to activated sludge tank inc. bypass |  |  |  |
| 2.17 | Activated sludge tanks inc. aeration system |  |  |  |
| 2.18 | Blower house with control centre, fully equipped |  |  |  |
| 2.19 | Flow division to the final settlement tanks inc. bypass |  |  |  |
| 2.20 | Final settlement tanks inc. all scrapers, flow meters |  |  |  |
| 2.21 | Effluent discharge, flow measurement, autosampler & continuous quality monitoring |  |  |  |
| 2.22 | Return activated sludge pumping station |  |  |  |
| 2.23 | Waste activated sludge pumping station |  |  |  |
| 2.24 | Primary sludge gravity thickener, inc. picket fence |  |  |  |
| 2.25 | Waste activated sludge storage and transfer pumping station |  |  |  |
| 2.26 | Supernatant storage & pumping station |  |  |  |
| 2.27 | Waste activated sludge mechanical thickener and transfer pumping station |  |  |  |
| 2.28 | Blended sludge buffer tank inc. mixers and transfer pumping station |  |  |  |
| 2.29 | Water heating system inc. boilers, circulators, heat exchanger, safety instruments |  |  |  |
| 2.30 | Anaerobic digestion tanks inc. mixers, recirculation pumps and all attached equipment |  |  |  |
| 2.31 | Digested sludge buffer tank inc. mixers and transfer pumping station |  |  |  |
| 2.32 | Sludge heating system inc. circulation pumps |  |  |  |
| 2.33 | Biogas treatment facility for foam, moisture, hydrogen sulphide, siloxane |  |  |  |
| 2.34 | Biogas storage and flare including compressors, safety equipment |  |  |  |
| 2.35 | Co-generation unit and all necessary accessories including additional biogas treatment |  |  |  |
| 2.36 | Digested sludge dewatering inc. polymer preparation and dosing system, conveyors and containers |  |  |  |
| 2.37 | Dewatered and dried sludge transport vehicles and sludge loaders at glasshouse |  |  |  |
| 2.38 | Solar drying inc. glasshouses, spare glass panels, sludge spreader/ mixer, climate control equipment and containers to achieve 50%DS |  |  |  |
| 2.39 | Supernatant tank and pumping station |  |  |  |
| 2.40 | Site Drainage pumping station |  |  |  |
| 2.41 | Technical water and firefighting system |  |  |  |
| 2.42 | Interprocess pipework |  |  |  |
| 2.43 | Instrumentation and SCADA system |  |  |  |
| 2.44 | Lightning protection system |  |  |  |
| 2.45 | Administration building and laboratory |  |  |  |
| 2.46 | Workshops and storage buildings |  |  |  |
| 2.47 | Internal roads, parking areas and footpaths inc, lighting |  |  |  |
| 2.48 | Fence, gates and gate building |  |  |  |
| 2.49 | Green landscaping |  |  |  |
| 2.50 | Furniture for Office and laboratory |  |  |  |
| 2.51 | Workshop equipment inc. benches - mechanical |  |  |  |
| 2.52 | Workshop equipment inc. benches - electrical |  |  |  |
| 2.53 | Laboratory equipment inc. benches and consumables |  |  |  |
| 2.54 | Spare parts and consumables – mechanical equipment |  |  |  |
| 2.55 | Spare parts and consumables – electrical equipment and panels |  |  |  |
| 2.56 | Diesel standby generator |  |  |  |
| 2.57 | Other items (to be entered by Tenderer and list to be provided) |  |  |  |
|  | **Total Schedule 3.2.1 to Schedule 2.1 - Offer** |  |  |  |

### WWTP Ciganski Ključ - Process Guarantees

***Schedule 3.2.2 Treated Effluent Quality Guarantees***

The Contractor guarantees that the WWTP Ciganski Ključ shall produce the following treated effluent quality, which shall be comparable to the parameters required in the UWWTD.

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Unit** | **European Directive on Urban Wastewater No 91/271/EEC** | **Required  Standards** |
| **Biochemical Oxygen Demand @ 20ºC without nitrification** | **mg/l** | **25** | **25** |
| **Chemical Oxygen Demand** | **mg/l** | **125** | **125** |
| **Total Suspended Solids** | **mg/l** | **35** | **35** |

***Schedule 3.2.3 Oxygen Transfer Guarantee***

The Contractor hereby guarantees that the oxygen transfer efficiency of the installed aeration system shall meet the data provided in the following table:

|  |  |
| --- | --- |
| **Specific Test Standard and Name** | **Guaranteed Value** |
| Oxygen Transfer efficiency  Biological Reactor | To be inserted by the Tenderer  …………………………………….. kg O2/kWh  (>4.5kg O2/kWh (ATV Standard, clean water) |

***Schedule 3.2.4 Sludge Treatment Guarantee***

The following parameters concerning sludge treatment shall be guaranteed by the Bidder for Phase 1:

1. Dry Solids Content of Thickened Primary Sludge

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 1** | **Unit** | **Minimum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Minimum content of dry matter in the thickened primary sludge | % dry matter | 5% average during tests on completion | …………………….. |

1. Dry Solids Content of Mechanically Thickened Waste Activated Sludge

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 2** | **Unit** | **Minimum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Minimum content of dry matter in the thickened excess sludge | % dry matter | 5% average during tests on completion | …………………….. |

1. Polymer usage for mechanical thickening

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 3** | **Unit** | **Maximum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Polymer – type  …………….  100% active substance | kg per tonne  dry matter (sludge) | 7 kg/t ds average during tests on completion | …………………….. |

1. Volatile Solids Destruction by Anaerobic Digestion

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 4** | **Unit** | **Minimum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Volatile Solids Reduction | % of VS in blended sludge | 40 % ds average during tests on completion | …………………….. |

1. Polymer usage for dewatering

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 5** | **Unit** | **Maximum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Polymer – type  …………….  100% active substance | kg per tonne  dry matter (sludge) | 10 kg/t ds average during tests on completion | …………………….. |

1. Dry Solids Content of Dewatered Sludge

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 6** | **Unit** | **Minimum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Minimum content of dry matter in the dewatered sludge | % dry matter | 25 % ds average during tests on completion | …………………….. |

1. Dry Solids Content of Solar Dried Sludge

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter 7** | **Unit** | **Minimum accepted by the Employer/Beneficiary** | **Guaranteed value by the Contractor** |
| Minimum content of dry matter in the solar dried sludge | % dry matter | 50% ds average during defect notification period | …………………….. |

***Schedule 3.2.5 Guaranteed Energy Consumption Costs***

In the table below the Bidder declares the guaranteed values for the energy consumption for three load possibilities for BOD, relative to 100%, 80% and 60% of the plant BOD design flow. For loads between those indicated, the guaranteed values will be interpolated from the provided values. A straight line interpolation will be adopted.

The calculation of the energy consumption shall be based on the motor list and calculation of electrical consumption shall be provided on template table provided in Volume 3.2.

Heat used for heating purposes shall be measured with flow meters and temperature difference at the heat exchanger. The energy saved through chilling by absorption shall be the energy extracted from the chilled circulation water calculated using the temperature differential and the chilled water flow through the absorption chillers.

The relevant calculations of the electrical energy consumption, based on methodology provided in Volume3.2, for the three load conditions shall be attached to this guarantee form and the final results are to be reflected in the following table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Description** | **Energy Consumption (kWh/year)** | | |
| **Pos.** | **100% of**  **BOD load** | **80% of**  **BOD load** | **60% of**  **BOD load** |
| 1 | Preliminary Treatment:  Screens, inlet pumping station, primary settlement, grit channel |  |  |  |
| 2 | Secondary Treatment:  Aeration tanks, including blowers, secondary settlement tanks, RAS and SAS pumping stations |  |  |  |
| 3 | Sludge Building:  Digester feed/ recirculation pumps and mixers, polymer dosing, mechanical sludge thickening and digested sludge dewatering |  |  |  |
| 4 | Digester Heating:  Energy from Boiler using Biogas + Heat/ chilled water production from CHP |  |  |  |
| 5 | External lighting and road lighting |  |  |  |
| **6** | Administration building and workshops |  |  |  |
| **7** | **Total Energy Consumption (1 + 2 + 3 + 4 + 5 + 6)** |  |  |  |
| **8** | Co-generation:  Electricity + Heat production from Biogas |  |  |  |
| **9** | **Net Energy Use (7 - 8)** |  |  |  |
| 10 | UNIT COST FOR ENERGY | 0.10 € /kWh | | |
| **11** | **Total Cost for Energy Consumption – 9 x 10 (€/y)** | -------------  \* | --------------  \*\* | --------------  \*\* |
| 11 |  | (\*)To be carried to Schedule 3.2.7 | (\*\*) For measuring purpose only | |

***Schedule 3.2.6*** ***Operational Cost Guarantee for Chemicals and Sludge Disposal***

In the table below the Bidder declares the guaranteed values for the use of chemicals and for the costs of sludge disposal for three load possibilities for BOD, relative to 60, 80 and 100% of the plant BOD design load for Phase I as presented in Volume 3 Section 2. The amount of sludge guaranteed for calculation of sludge disposal costs shall be for achieving 50%DS.

For loads between those indicated, the guaranteed values will be interpolated from the provided values. A straight line interpolation will adopted.

The relevant calculations of the cost for usage of chemicals and for sludge production and disposal for the three load conditions shall be attached to this guarantee form and the final results are to be reflected in the following table.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Description** | | **Quantities and Costs for Chemicals and Sludge Disposal** | | | | | |
| **100% of BOD load** | | **80% of BOD load** | | **60% of BOD load** | |
|  | **Unit price (€/t)** | **t/y** | **€/y** | **t/y** | **€/y** | **t/y** | **€/y** |
| Polymer usage for mechanical thickening | 10,000 |  |  |  |  |  |  |
| Polymer usage for dewatering | 10,000 |  |  |  |  |  |  |
| Solar dried sludge (50%DS) transport and disposal costs | 30 |  |  |  |  |  |  |
| **Total annual cost for chemicals and sludge disposal** | | **n/a** | **---------**  **\*** | **n/a** | **---------**  **\*\*** | **n/a** | **---------**  **\*\*** |
|  | |  | (\*)To be carried to Schedule 3.2.7 | (\*\*) For measuring purpose only | | | |

***Schedule 3.2.7 Summary of Guaranteed Operational Costs***

In the table below the Bidder declares the guaranteed values for the yearly costs with operational cost for electricity, chemicals, sludge and debris disposal.

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Yearly cost at**  **100% of BOD load**  **€/year** | **Yearly cost at**  **80% of BOD load**  **€/year** | **Yearly cost at**  **60% of BOD load**  **€/year** |
| Schedule 3.2.5 - Electrical energy consumption |  |  |  |
| Schedule 3.2.6 - Chemicals and sludge disposal costs |  |  |  |
| **TOTAL YEARLY GUARANTEED COST** | **(\*)** | **(\*\*)** | **(\*\*)** |
|  | (\*)To be carried to Schedule 3.2.8 | (\*\*) For measuring purpose only | |

***Schedule 3.2.8 Calculation of Net Present Value (NPV)***

The Net Present Value of the Guaranteed Operational Costs shall be calculated assuming a discount rate of 5% for a period of 20 years, which results in a capitalisation factor of 14, which shall be presented by the bidder in the following table. The value for the 100% load case shall be transported to the Schedule 3.4, as a guaranteed value for plant design load.

The set of 100%, 80% and 60% values are required for measuring purposes, to verify compliance of the guaranteed operational costs during the defect notification period which shall be performed in accordance with the procedure described in Volume 3, Section 2.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Description** | **Yearly cost at**  **100% of BOD load**  **€/year** | **Yearly cost at**  **80% of BOD load**  **€/year** | **Yearly cost at**  **60% of BOD load**  **€/year** |
| 1 | Schedule 3.2.7 - Guaranteed Annual Operating Costs |  |  |  |
| 2 | NPV factor for 20 years | 14 | 14 | 14 |
| **3** | **NPV of 20 Years of Operational Costs, 1 x 2** | **(\*)** | **(\*\*)** | **(\*\*)** |
|  | | (\*) To be included in Schedule 3.4 | (\*\*) For measuring purpose only | |

### Penalties for non-compliance with the Guaranteed Operational Costs

The bidder declares his agreement with the following statement:

In the case that at the end of the guarantee period for operational costs, the measured operational cost as determined via the procedure described in Volume III, Section 2, is still higher than the guaranteed value, the Contractor shall have to pay a penalty to the Final Beneficiary for the difference between the measured and guaranteed operational costs, multiplied by 14 (capitalisation factor for 20 year operational costs), to compensate for the losses caused to the Final Beneficiary.

**Schedule 3.3 WTP MEDIANA - BACKWASHWATER TREATMENT PLANT**

***Schedule 3.3.1 – Breakdown of lump-sum price WTP Mediana***

| **Item** | **Description** | **Civil Works**  **(Lump Sum) EUR** | **MEICA Works (Lump Sum) EUR** | **Total Amount**  **EUR** |
| --- | --- | --- | --- | --- |
| 3.01 | Electrical supply system, excluding new 10kV/0.4kV and distribution board, realised by others |  |  |  |
| 3.02 | Diversion chamber and inlet pumping station |  |  |  |
| 3.03 | Alum dosing system |  |  |  |
| 3.04 | Settling tank with coagulation and flocculation zone |  |  |  |
| 3.05 | Sludge withdrawal system with pumps |  |  |  |
| 3.06 | Sludge thickening and buffer storage tanks |  |  |  |
| 3.07 | Polyelectrolyte preparation and dosing system |  |  |  |
| 3.08 | Sludge dewatering system with dewatered sludge containers |  |  |  |
| 3.09 | Sludge building |  |  |  |
| 3.10 | Electrical distribution system |  |  |  |
| 3.11 | Instrumentation and SCADA system |  |  |  |
| 3.12 | Internal Roads and footpaths |  |  |  |
| 3.13 | Spare parts for 2 years |  |  |  |
|  | **Total Schedule 3.3.1 to Schedule 2.1 - Offer** |  |  |  |

**Schedule 3.4 Calculation of Whole Life Costs for Bid Evaluation**

The calculation of Whole Life Costs for Bid Evaluation shall be used for financial evaluation of the bid. The following table shall be completed using the NPV for operating costs at 100% load. The following table shall be completed by Tenderer using values from previous tables.

|  |  |  |
| --- | --- | --- |
| **Schedule** | **Description** | **Amount - Euros** |
| 2.1 | Total Price (CAPEX) |  |
| 3.2.8 | WWTP Ciganski Ključ - NPV Operating costs (OPEX) |  |
|  | **Whole Life Cost Total = Tender Evaluation Price (TEP)** (2.1 + 3.2.8) |  |

### Financial Offer — Daywork Schedule

**Schedule 4.1 Total of dayworks — provisional sum**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Description** | **Unit** | **Unit price** | **Estimated quantities** | **Provisional sums**  **[EUR]** |
| A1 | Labourer | wd |  | 30 |  |
| A2 | Skilled worker – 2 years experience | wd |  | 30 |  |
| A3 | Skilled worker – 5 years experience | wd |  | 30 |  |
| A4 | Foreman | wd |  | 30 |  |
| A5 | Site manager | wd |  | 30 |  |
| A6 | HGV driver | wd |  | 30 |  |
| A7 | Heavy plant driver | wd |  | 30 |  |
| A8 | Clerk of works | wd |  | 30 |  |
| A9 | Mechanic | wd |  | 30 |  |
| A9 | Land surveyor | wd |  | 30 |  |
| A10 | Planning draughtsman | wd |  | 30 |  |
| A11 | Licensed engineer | wd |  | 30 |  |
| C1 | Gasoil | L |  | 700 |  |
| C2 | Aggregates for concrete | m3 |  | 70 |  |
| C3 | Sand for concrete 2/4 | m3 |  | 30 |  |
| C4 | Cement | T |  | 15 |  |
| C5 | Steel for reinforced concrete | Kg |  | 10000 |  |
| C6 | Annealed wire | Kg |  | 400 |  |
| C7 | Timber formwork | m2 |  | 150 |  |
| C8 | Plywood | m2 |  | 150 |  |
| C9 | Plasticisers | Kg |  | 150 |  |
| C10 | Concrete coating | Kg |  |  |  |
| C11 | Asphalt concrete | T |  | 100 |  |
| C13 | Inspection ladders | U |  |  |  |
| C14 | Fencing | ml |  | 100 |  |
| C15 | Traffic signs | U |  | 50 |  |
| B1 | D8N bulldozer or similar | wd |  | 30 |  |
| B2 | 14G grader or similar | wd |  | 30 |  |
| B3 | CAT-type crawler excavator – 50kW | wd |  | 30 |  |
| B4 | CAT wheeled excavator – 50kW | wd |  | 30 |  |
| B5 | Trencher type – 50 kW | wd |  | 30 |  |
| B5 | Pump – 4kW | wd |  | 30 |  |
| B6 | Concrete vibrating poker | wd |  | 30 |  |
| B7 | Mobile crane – 40T | wd |  | 30 |  |
| B8 | Concrete pump | wd |  | 30 |  |
|  | **Total Dayworks to Schedule 2.1** |  |  |  |  |