# *ANNEX II + III:* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract title: Supply of technical equipment - Supply of technical equipment for protection and maintanance of habitats and species off road vehicle equipped with modules for fires, floods and snowstorms - Project No – CB007.2.32.165 - ,, The environment – future and responsibility of all ’’.**

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**Publication reference:** **CB007.2.32 .165 – SUPPLY (B3)**

**Columns 1-2 should be completed by the contracting authority**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

* Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
* Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
* Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offeredspecifications.

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1.** | **TECHNICAL SPECIFICATION ABOUT A MODULAR SYSTEM FOR RESPONCE IN DISASTER SITUATIONS – OFF ROAD VEHICLE EQUIPPED WITH MODULES FOR FIRES, FLOODS AND SNOWSTORMS**  **Description:**  *The modular system must be based on a pickup truck and should consist of three separate modules according to their purpose, which should be quickly and easily replaced each other according to the response needs: flood, forest fire or heavy winter conditions.*  **1. Off road vehicle – pickup truck: 1 (one) piece**  Chassis   * *Pick-up vehicle;* * *Movement: 4x4 with differential locker;* * *Payload: 1000kg +/-20%;* * *Cub: 1+4 with 4 doors;* * *Dimension of cargo compartment (L/W/H) at least 1 510/1 460/390 mm;* * *Hardtop;* * *Sliding bed for assembling of the different modules;* * *Rear camera;* * *Tyres: at least 17” off-road;* * *Front angle: ≥ 29°* * *Rear angle: ≥ 22°* * *Angle of slope: ≥ 24°* * *Side tilt angle: ≥ 45°* * *Ground clearance: 200 mm +/- 10%;* * *Engine: diesel, 4 cylinders with capacity at least 2,4 l, EURO 6;* * *Power: 130KW +/- 20%* * *Average fuel consumption: 7,0 l/100 km +/- 10%;* * *CO2: 170g/km +/- 20%;* * *Gear box: manual, at least 5+1 gears;* * *Rear suspension: leaf springs:* * *ABS, ESP* * *Front and rear fog lights;* * *1 set orange signal light-bar mounted on the roof of the cabin, electronic siren with power of at least 100W;* * *1 pc. Digital mobile radio 136-174 MHz, 25 W, set with antenna, inside speaker, vehicle stand and microphone;* * *2 pcs. Digital portable radio, 1136-174 MHz, 5 W. IP 54 or IP 55. Set with LI-Ion battery pack at least 1 9000 mAh antenna, charger 230 V 59 Hz, charger 12 V for vehicle;* * *Programming software and interface cable/s;* * *Warranty period of the vehicle; at least 3 years or 150 000 km .*   ***Calculation per piece: 1(one) pieces*** |  |  |  |
| **2.** | **2. Module for flood response – 1 (one) set**  **This module must be equipped with the following equipment:** |  |  |  |
| 2.1 | **Power generator:**   * *4-stoke gasoline engine* * *Manual start* * *Nominal power of the generator: at least 5 kW* * *Automatic voltage regulator (AVR)* * *230 V 59 Hz* * *At least two sockets 230 V 16 A* * *Weight up to 95 kg .*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.2 | **Mobile light mast:**   * *Portable;* * *Three section masts with a working height of not less than 3 500 mm;* * *Lightning devices 2 x 100W 230 V;* * *Gasoline power generator at least 1 kVA. silent type;* * *Stabilizers;* * *10 m power cable.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.3 | **Submersible water pump:**   * *-Vertical, one-stage, mode from stainless steel;* * *-Cable length ≥ 5 m* * *-Start / stop float* * *-Fluid temperature from 0° C to + 50° C* * *-Flow rate ≥ 8 m³ / h* * *-Working pressure; ≥ 5 m* * *-Operating voltage 230 V 50 Hz* * *-Engine power: ≥ 300 W* * *-Solid particle size ≥ 10 mm* * *-Safety rope ≥ 10 m* * *-Weight ≤ 6.6 kg* * *Outlet Store C.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.4 | **Floating water pump**   * *Max. flow 750 l/min* * *Water throw at least 30 m* * *Outlet store C* * *Power at least 5 kW* * *Weight up to 25 kg* * *Security rope 20 m.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.5 | **Trash pump 2”**   * *Flow at least 700 l/m* * *Water throw at least 26 m* * *Izxcoo Store C* * *Power at least 3.5 kW* * *Weight up to 65 kg* * *Particles ≥ 24 mm.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.6 | **Hoses**   * *Length 20 m* * *Diameter Ø 52 mm* * *Couplings Store C* * *PN 16 bar* * *Acc.to DIN 14 811.*   ***Calculation per piece: 5(five) pieces*** |  |  |  |
| 2.7 | **Overalls for water rescue**  *It shell consist rubber boots and trousers. The trousers should be made of a one-sided rubberized waterproof fabric. The seams should be sealed. .* ***Calculation per piece: 2(two) pieces*** |  |  |  |
| 2.8 | **Inflatable boat**   * *For 4-6 persons* * *Length ≥ 2 m* * *Width ≥ 1.1 m* * *Cameras ≥ 2* * *Security rope* * *Paddles* * *Air pump.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.9 | **Floating rope**   * *Material: PP* * *Color: orange* * *Diameter Ø 8 mm + 5 %* * *Length 50 m.*   ***Calculation per piece: 2(two) pieces*** |  |  |  |
| 2.10 | **Life jacket**   * *Automatic, inflatable* * *Buoyancy ≥ 165 N* * *Red colour.*   ***Calculation per piece: 4(four) pieces*** |  |  |  |
| 2.11 | **Suction hoses**   * *Length ≥ 5.5 m* * *Couplings Store C.*   ***Calculation per set: 1(one) set*** |  |  |  |
| 2.12 | **Suction strainer**  *Couplings Store C.*  ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.13 | **Ceiling hook:**   * *Wooden handle Ø 35 – 40 mm, two part* * *Two couplings* * *Length 2.5 m* * *Weight up to 3.8 kg .*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.14 | **Fuel canister**   * *Metal petrol canister* * *UN-certified* * *20 l volume* * *Rigid spout* * *Weight up to 4.5 kg (with spout).*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 2.15 | **Spry colors**   * *In metal cans* * *At least 400ml* * *Colours: red, yellow and green.*   ***Calculation per set: 1(one) set*** |  |  |  |
| 2.16 | Head lamp   * *Maximum power at least 350 lm* * *Range at least 90 m* * *Accu battery with capacity at least 1200 mAh* * *Weight up to 95g* * *IP X4*   ***Calculation per piece: 4(four) pieces*** |  |  |  |
| 2.17 | Rope ladder   * *Made from synthetic rope* * *Working range at least 10 m* * *Load capacity not less than 150 kg.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| **3.** | **3. Module for woodland fire response: 1 (one) set**  **This module must be equipped with following equipment:** |  |  |  |
| 3.1 | **Ultra-high pressure extinguishing system**   * *Working pressure at least 100 bar;* * *1 pc. reel with rubber hose with metal interval braid (core) with a length of at least 100m. With handle winding and locking device:* * *Engine: 4-stroke gasoline engine with electric start. Power not less than 10kW (14 hp). Air cooling system;* * *Pump assembly for high pressure with a maximum flow rate of not less than 42 l / min at maximum pressure of no less than 100 bar;* * *L-shaped reservoir from GRP, with a capacity of not less than 400 l, including not less than 380 l of water and not less than 20 l foam agent;* * *Foam supply system, for foam supply with low and medium multiplicity;* * *Pistol-type nozzle for water and foam, with the possibility of submission of at least two types of water jets and foam jet. The nozzle should be designed to create maximum working pressure and ensure maximum flow of the installation;* * *Range of the jets: not less than 18 m in compact jet, not less than 12 m in spray jet, and not less than 10 m in foam jet;* * *Suction device with no less than 6 m suction with Store type connector and protective cop.*   ***Calculation per set: 1(one) set*** |  |  |  |
| 3.2 | **Portable water pump**   * *Gasoline engine* * *Inlet: 1”* * *Outlet: 1” Store D* * *Water throw: ≥ 35 m* * *Flow: ≥ 120 l/min* * *Dept: ≥ 6 m* * *Suction hose ≥ 6 m* * *Suction strainer* * *Security rope ≥ 10 m.*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 3.3 | **Hoses**   * *Length 20 m* * *Diameter Ø 25 mm* * *Couplings Store D* * *PN 16 bar* * *Acc.to DIN 14 811.*   ***Calculation per piece: 5(five) pieces*** |  |  |  |
| 3.4 | **Nozzle**   * *Flow ≥ 100 l/min* * *Coupling Store D .*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 3.5 | **Floodlights**   * *With 2 pcs. LED sources with a total luminous flux of at least 200 lm;* * *Tilting on at least three fixed positions lighting head (at 0° , 45° and 90°);* * *Light digital indication of the time remaining for lighting in hours and minutes;* * *With at least three modes of light for operation with a Charging not less than 4 h at full intensity and not less than 8 h an minimal intensity;* * *Protection against water and dust not less than IP 67;* * *Weight not more than 500g;* * *Accessories: Spare glass, Charger 230 V;* * *In the car to be installed charger for charging at least 1 pc. flashlight from electrical installation of the car;*   ***Calculation per piece: 4(four) pieces*** |  |  |  |
| 3.6 | **Fire Battledore**   * *With a wooden handle;* * *Type “metal broom” ;*   ***Calculation per piece: 2(two) pieces*** |  |  |  |
| 3.7 | **Water backpack**   * *Water tank ≥ 18 l;* * *Nozzle with compact and fog jets;* * *Range of the compact jet ≥ 10 m;*   ***Calculation per piece: 2(two) pieces*** |  |  |  |
| 3.8 | **Sanitary device**   * *Apparatus for automatic defibrillation and CPR;* * *Colour Screen ≥ 10 cm;* * *ECG and CPR curve display;* * *Built-in battery ≥ 5 years life;* * *Weight with battery ≤ 2 kg;* * *Voice recording during resuscitation;* * *Operating temperature -10° C to + 55° C;* * *≥ IP 66 protection against water and dust;* * *Menu and voice commands in English and/or Serbian;* * *Should include the following accessories: Defibrillation electrodes 1 pc. CPR sensor 1 pc.*   ***Calculation per set: 1(one) set*** |  |  |  |
| 3.9 | **Motor Chainsaw**   * *Gasoline engine;* * *Power: at least 2.5 kW;* * *Chain 325”* * *Bar 18”* * *Weight: up to 5.5 kg;*   ***Calculation per piece: 1(one) piece*** |  |  |  |
| 3.10 | **Protective helmet**   * *Acc. to EN 12 492: 2012 (or equivalent);* * *Ventilated, with adjustable size of №52 up to №66;*   ***Calculation per piece: 4(four) pieces*** |  |  |  |
| 3.11 | **Protective suit**   * *Acc.to EN 340:2003 ISO 11612:2008, EN 15614:2007 and EN 1149-5:2008 (or equivalent);* * *Colour of the set – dark blue;* * *Reflective strips – silver;*   ***Calculation per set: 4 (four) sets*** |  |  |  |
| 3.12 | **Protective gloves**   * *Acc.to EN 659 or equivalent;*   ***Calculation per pair: 4 (four) pairs*** |  |  |  |
| 3.13 | **Protective boots**   * *Acc.to EN 15 090or equivalent;* * *Type F2A, according to EN 15090;* * *The weight of a pair of boots to be less than 2.9 kg for № 42 boot;*   ***Calculation per pair: 4 (four) pairs*** |  |  |  |
| **4.** | **4. Module for response in case of heavy snowfall. – 1 (one ) set**  **This module must be equipped with the following equipment:** |  |  |  |
| 4.1 | **Snowplow**   * *For offered pick-up vehicle;* * *Working width at least 1 800 mm;* * *Weight up to 140 kg;* * *Lighting module;* * *12 V;*   ***Calculation per set: 1(one) set*** |  |  |  |
| 4.2 | **Salt/sand spreader**   * *For the offered pick-up vehicle;* * *Volume at least 320l;* * *12 V;*   ***Calculation per set: 1(one) set*** |  |  |  |
| 4.3 | **Winter protective clothing**   * *High visibility* * *Colour signal yellow*   ***Calculation per pair: 4 (four) pairs*** |  |  |  |