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**Terms of Reference (ToR)**

**Terms of Reference for the Supply of 1 kV Cables for the Needs of JSC Telasi**

**1. BRIEF DESCRIPTION OF GOODS PURCHASED**

**1.1. Name and volume of purchased goods**

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| **№** | Product Description | Q-ty |
| 1 | **Cable АВВГнг-LS-1 3Х16** (or analogue) | See Schedule №1 |
| 2 | **Cable АВВГнг-LS-1 4Х10** (or analogue) | See Schedule №1 |
| 3 | **Cable АВВГнг-LS-1 4Х16** (or analogue) | See Schedule №1 |
| 4 | **Cable АВВГнг-LS-1 4Х25** (or analogue) | See Schedule №1 |
| 5 | **Cable АВВГнг-LS-1 4Х35** (or analogue) | See Schedule №1 |
| 6 | **Cable АВВГнг-LS-1 4Х50** (or analogue) | See Schedule №1 |
| 7 | **Cable АВВГнг-LS-1 4Х70** (or analogue) | See Schedule №1 |
| 8 | **Cable АВВГнг-LS-1 4Х95** (or analogue) | See Schedule №1 |
| 9 | **Cable АВВГнг-LS-1 4Х120** (or analogue) | See Schedule №1 |
| 10 | **Cable АВВГнг-LS-1 4Х150** (or analogue) | See Schedule №1 |
| 11 | **Cable АВВГнг-LS-1 4Х185**(or analogue) | See Schedule №1 |
| 12 | **Cable АВВГнг-LS-1 4Х240** (or analogue) | See Schedule №1 |

**1.2. Dates of Deliveries**

Delivery – as per Schedule №1.

**1.3. Procurement justification:** AdjustedAnnual Comprehensive Procurement Program-2021. СЗ №0712/982/21.

**1.4. Possibility of supply of similar goods.**

It is allowed to supply similar products according to the definition of "analogue" specified in the note.

**\*\*\* Note:**

Definition of **“Analoque” -** Products that are similar or comparable to the product, having identical functional purpose, weight, size and installation characteristics and conditions of use.

**2. GENERAL REQUIREMENTS**

**2.1. Product application and use point.**

Within the networks of JSC "Telasi".

**2.2. Product Requirements**

The product must be new, put into circulation for the first time, previously unused / brand-new (in new condition) of factory production (commercially prepared/ not counterfeit or handicraft), with production period not more than 12 months (pointed where necessary) (not stale) and comply with all ToR requirements and provisions of the contract.

The product must be new, not being in use, of the latest or advanced model, as well as take into account the latest developments in the field of structures and materials (if necessary).

The cable must comply with the requirements established by IEC 60502-2 / GOST 31996—2012 or similar standards in accordance with the requested type of product.

The cable must have the characteristics referred to in s/p №2.2.1:

№2.2.1

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| **№** | **Cable requirements**  | **Required parameters**  |
| 1 | Rated voltage | 1 kV. |
| 2 | Core | Aluminum multi-wire; as per GOST 22483-2012, class 2. |
| 3 | Number of cores  | 3, 4 |
| 4 | Cross section  | As per P. №1.1 of ToR |
| 5 | All cores must be of the same section | Yes |
| 6 | Insulation | PVC |
| 7 | Sheath | PVC |
|  | cable sheath | As per GOST 23286-78 |
| 8 | Fire safety class | ng – does not spread combustion when laid in a group, the formation of smoke and gas is reduced.  |
| 9 | Core insulation  | by color or numbering |
| 10 | Tagging  | The cable sheath must bear the tagging "TELASI" and the footage in each meter  |
| 11 | Ambient temperature range during operation | from -20oC to +50oC |
| 12 | Cable installation without preheating  | Up to -15oC |
| 13 | Operating temperature | +70oC |
| 14 | Short-term temperature limits in short-circuit mode  | +160oC |
| 15 | Minimum permissible bending radius during installation | 7-8 D |
| 16 | Service life, at least | 30 years  |
| 17 | The cable must comply with SST EN 50575:2014/2016 for fire safety and be labelled with a CE mark.  |

\*\*\* Note:

1. When supplying cables, test reports must be included in the package.

2. Cables with a cross section of up to 16 mm2 are allowed with a conductive conductor class 1 and class 2.

**2.3. Requirements for materials and equipment used in production**

The materials used must be new, not being in use, date of manufacture not earlier than the previous year, of the latest or advanced model, as well as take into account the latest developments in the field of structures and materials.

**2.4. Requirements for the conformity of the goods with the mandatory requirements of the legislation on technical regulation**

Procurement participants in their proposals must submit certificates of conformity of the proposed goods with the requirements established by IEC 60502-2 and GOST 31996—2012 (or similar standards in accordance with the requested type of product.), EN 50575:2014/2016. Certificate ISO IEC 17025:2005 – General requirements for the competence of testing and calibration laboratories (or equivalent); furthermore, the supplier is obliged, under his/her own responsibility, to have and present in his/her documents a customs clearance certificate for imported products.

**2.4.1. Voluntary certification requirements:**

ISO 9001-2015 Quality Management System Certificate; ISO 14001-2015 Environmental Management System Certificate.