

**I APPROVE:**

Director of the Strategy Department

**2022**

Amendment No.1 of the

DESIGN TASK

“Construction of a new 330 kV Vilnius-Neris ETL“

**INVESTMENT PROJECT No. PLSV18094**

List of alignments (list of alignments from Doclogix attached)

**Design task No. 21PRU-10 of 02/04/2021 “Construction of a new 330 kV Vilnius-Neris overhead line” (hereinafter - DT):**

1. **Sub-clause 18.9 and clauses 8, 46, 47, 48, 50, 51, 53, 54, 55, 59, 179 are amended and read as follows:**

* „8. The scope of the submission of the technical documentation of the Main equipment for coordination and the compilation and structure of the tables of the technical specifications of the technical design shall be in accordance with the requirements of the TSO procedure for justification of the compliance of the Main equipment with the Customer's requirements and the requirements for the compilation of the technical specifications of the technical design (Annex No. 4). Technical design explanatory notes shall stipulate that the Contractor shall provide the completed technical design specifications with documentation supporting the compliance requirements prior to the commencement of the detailed design of the works and the ordering of the Main equipment. Prior to ordering the Main equipment, the TSO shall assess the conformity of the equipment supplied by the Contractor with the design task and the design solutions in accordance with the standard technical requirements for the equipment. The equipment shall be ordered subject to the approval of the TSO. All equipment supplied must comply with national security interests (see Annex No. 61).

• “18.9 Design the works in such a way that during the construction of the new 330 kV OL Vilnius-Neris (LN 519/520), the existing 330 kV OL Vilnius-Molodečno is in operation.

The reconstruction of the existing 330 kV Vilnius-Molodečno OL is only possible for its reconstruction from the 330 kV Vilnius TS to the 330 kV Vilnius-Molodečno OL (LN 333) pylon No. 59 and after coordination of the protective barriers between the 330 kV Vilnius and the 330 kV Neris TS. Parallel works (new part of 330kV OL Vilnius-Neris (LN519/520), reconstruction of 330kV OL Vilnius-Molodečnas section from Vilniaus TS to pylon No. 59, modifications of the RPA protections on the Neris and Vilnius TS) are also possible, however, the starting date of the disconnection of 330kV OL Vilnius-Molodečnas has to be chosen in such a way so as to ensure that the completion of the works will be in the same period of time with the completion of the works of the 330kV OL Vilnius-Neris (LN519/520)”.

* „46. Provide a longitudinal profile of the OL, which shall include the deflections of the wires and lightning protection cable with fibre optic cable (LPC with FOC), the distances from the wires to the ground and to the surface of the water, the distances at the intersections with other engineering infrastructure, for the normal and the critical (ambient temperature calculated at t= +35°C, wire heating temperature calculated at t= +80°C, wind velocity calculated at v= 0,6 m/s) operating modes of the OL. The distances from the lower wires of the OL to the ground and water surfaces, to the cars, railways and waterways shall be designed at least 1.5 m greater than the distances specified in the Rules for the Installation of Electrical Power Lines (hereinafter - RIEPL) for the critical (calculated ambient temperature t= +35°C, cable heating temperature t= +80°C, wind speed v= 0.6 m/s) mode of OL operation. The numerical value of the deflection of the lower air line cable shall be indicated in each span of the longitudinal profile under the following ambient conditions: (a) ambient temperature +35°C, wind speed 0,6 m/s; (b) ambient temperature -5°C, the thickness of the frost and the wind speed shall be selected in accordance with the maps of frosting and wind areas in the territory of the Republic of Lithuania; (c) ambient temperature -35°C with no frost and no wind; (d) ambient temperature +35°C, the cable's heating point +80°C, and the wind speed - 0,6 m/s). Longitudinal profiles shall be submitted in .pdf and .dwg formats for technical design coordination.”
* „47. Provide a layout of the OL route to identify the position of the existing and planned OL edge wires in a horizontal projection. Submit the route plan in .pdf and .dwg formats during the technical design coordination. The width of the topographical photograph shall cover the entire area of the OL protection zone.”
* „48. For the 330 kV Vilnius - Neris OL, one complete phase transposition cycle must be designed. During the preparation of the technical design, the locations (supports) for the transposition of the phases must be agreed with the TSO. Provide dimensional drawings of the transposition supports showing the distances from the grounded structures of the support to the live parts and the distances between the conductors of different phases.'
* „50. Provide calculations and results for the selection of specific locations for the installation of distance spiral-vibration dampers and vibration dampers. The installation of Stockbridge vibration dampers shall be provided at each support at the isolation garlands.”
* „51. Design the installation of new isolator garlands, linear reinforcement, distance spiral-vibration dampers, vibration dampers and earthing circuits. Provide calculations and results for the selection of the electromechanical characteristics of wires, LPC with FOC**,** insulators and linear reinforcement. Provide drawings (overall dimensions, components) of the insulator garlands. All linear reinforcementd shall be hot-dip galvanised unless otherwise specified in the standard specifications. The linear reinforcement supplied shall comply with and be tested in accordance with the requirements of IEC, LST EN or equivalent standards.”
* „53. Design the installation of permanent signs on the pylons in accordance with the requirements set out in Annex No. 11. Provide passports and cadastral files for the 330 kV OL Vilnius-Neris.”
* “54. Evaluate the requirements of the “Description of the Obstacle Marking Procedure”, approved by the Order of the Director of the Lithuanian Transport Safety Administration No. 2BE-109 of 26 March 2020. Where the need for day marking is identified, the technical design shall provide for the painting of the pylons in accordance with the requirements of the description.
* “55 design and select the OL elements in accordance with the requirements set out in Annexes No. 12-25. Annex No. 20 shall not apply to the use of anchor supports for hanging (bypassing) garlands from the anchor supports planned to be used in the 330 kV OL Jurbarkas-Bitėnai.”
* “59 Design for the replacement of 4 pcs. of metal anchor supports with metal anchor supports. In total: 4 pcs.”
* “179 The foundations of the supports shall be designed in reinforced concrete of the standard type, factory precast, drilled or pilons. Design work is carried out according to: Building Standard RSN 156-94 “Building Climatology”; Building Technical Regulation STR 2.05.04:2003 “Effects and Loads”; Building Technical Regulation STR 2.05.08:2005 “Design of Steel Structures. General Provisions”; Building Technical Regulation STR 2.05.05:2005 “Design of Concrete and Reinforced Concrete Structures”; Building Technical Regulation STR 1.05.06:2010 “Building Design”; Lithuanian Standard LST EN 1992-1-1:2005 “Eurocode 2. Design of concrete structures. Part 1-1: General rules and rules for buildings”; Lithuanian standard LST EN 1993-1-1:2005 “Eurocode 3. Design of steel structures. Part 1-1” General rules and rules for buildings”; Lithuanian standard LST EN 1997-1:2005 “Eurocode 7. Geotechnical design. Part 1. Basic rules”; Lithuanian standard LST EN 1997-2:2007 “Eurocode 7. Geotechnical design. Part 2: Ground investigation and testing“. The minimum number of tests per site shall be one test borehole per 20 acres, but not less than two test boreholes for small-scale sites; the Lithuanian standard LST EN 1536:2011 “Execution of special geotechnical works. Bored piles”; Lithuanian standard LST EN 12699:2003 “Special geotechnical works. Displacement piles” and other applicable norms in the Republic of Lithuania.”

1. **a new Annex shall be added and read as follows:**

ANNEXES:

* „61. Requirements for the compatibility of the procurement object with national security interests,”

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| No. | Requirement |
| 1. | The Supplier undertakes that the goods or services offered by the Supplier will not constitute a threat to national security, i.e.: |
| 1.1.1. | the functioning of the communication and information infrastructure managed by LITGRID AB, which is important for the operations of LITGRID AB, will not be disrupted; |
| 1.1.2. | the activities of LITGRID AB as a company important for national security will not be disrupted; |
| 1.1.3. | there will be no unlawful obtaining of information which constitutes a state or official secret or other non-public (e.g. company’s confidential) information. |
| 1.1.4. | offered hardware and software   * supplier, * sub-supplier, * the economic operator whose capacity is relied upon * or the person who controls it[1] * and/or the manufacturer or the person who controls it   are not registered (if the manufacturer or the person controlling the manufacturer is a natural person with permanent residence or nationality) in the countries or territories referred to in the list provided for in Article 92(14) of the Law on Public Procurement:  When providing services or works   * the persons who maintain or support the equipment, or those who control them, are not * maintenance or support of hardware or software is not/will not be carried out   from the countries or territories referred to in the list provided for in Article 92(14) of the Law on Public Procurement: |
| 1.1.4.1. | Russian Federation; |
| 1.1.4.2. | The Republic of Belarus; |
| 1.1.4.3. | People’s Republic of China, not applicable in the Separate Customs Territory of Taiwan (Penghu, Kinmen and Matsu); |
| 1.1.4.4. | Crimea annexed by the Russian Federation; |
| 1.1.4.5. | The territory of Transnistria, which is not under the control of the Government of the Republic of Moldova; |
| 1.1.4.6. | The territories of Abkhazia and South Ossetia, which are not under the control of the Government of Sakartvelo. |
| 1.1.5. | the goods offered by (including their components):   * supplier, * sub-supplier, * the economic operator whose capacity is relied upon * or the person who controls it[1] * and/or the manufacturer or the person who controls it   are not registered (if the manufacturer or the person controlling the manufacturer is a natural person with permanent residence or nationality) in the countries or territories referred to in the list provided for in Article 92(15) of the Law on Public Procurement: |

Requirements for the compatibility of the procurement object with national security interests

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| 1.1.5.1. | Russian Federation; |
| 1.1.5.2. | The Republic of Belarus; |
| 1.1.5.3. | Crimea annexed by the Russian Federation; |
| 1.1.5.4. | The territory of Transnistria, which is not under the control of the Government of the Republic of Moldova; |
| 1.1.5.5. | The territories of Abkhazia and South Ossetia, which are not under the control of the Government of Sakartvelo. |

[1] Controlling person - a legal or natural person who has or acquires the right to control an economic entity. A controlling person may be a citizen of the Republic of Lithuania, a foreigner or a stateless person or an economic entity, as well as a public administration entity. Spouses, parents and their minor children (adopted children) are considered as a single controlling person. Where two or more legal or natural persons, acting on the basis of an agreement, acquire control of the undertaking being concentrated, each of those legal or natural persons is deemed to be the controlling person. In cases where control is not acquired directly but through another person, the ultimate holder of control is deemed to be the controlling person, not the intermediary.

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