

# SCOPE OF WORKS

## Power Plant 875–00: Replacement of RV-2 With Lower Capacity Unit

### General Description

#### 1. General.

*[present general data related to work, brief general description (name) of work to be performed and exact place of execution]*

The works are to be performed at the Power Plant. The currently operated 6 kV recirculation fan RV-2 has the capacity of 400kW; after the calculations it was determined that lower capacity recirculation fan is necessary. It is planned to install new recirculation fan with a 0.4 kV electric motor. The project includes selection/design of a new recirculation fan with electric motor, supply of materials, as well as development and implementation of mechanical, civil, electrical and automation parts of the design.

#### 2. Attachments.

*[List all annexes related to works containing additional information, indicate ref. number and exact title of each annex. Make sure that all annexes, drawings or diagrams (if applicable) are up to date and present your comments if needed]*

- 2.1 Attachment\_1. Scope of designing works for electrical part
- 2.2 Attachment\_2. Scope of designing works for automation part
- 2.3 Attachment\_3. Scope of designing works for mechanical and civil part.
- 2.4 Attachment\_5. Requirements for contractors performing works at AB ORLEN Lietuva available at the website <https://www.orldenlietuva.lt/EN/ForBusiness/DocumentsForContractors/Pages/default.aspx>

#### 3. Description and specifics of work.

##### 3.1. General requirements.

*[Provide general summary for the scope of work . Describe general requirements for works. Specify desired outcome/deliverables].*

- 3.1.1 The proposal shall cover all works that are described or specified in the drawings, specifications and this Scope of Work (SOW). Any minor works not indicated herein but required in order to ensure the work functionality and completeness shall be considered as included into the proposal.
- 3.1.2 The Contractor shall visit the worksite to assess all the works (designing, supply of materials, installation works).
- 3.1.3 The Contractor shall provide all necessary materials, equipment, labor and services, supervision of fabrication, installation works.
- 3.1.4 The Contractor shall perform the works according to the normative and legal acts of the Republic of Lithuania and standards indicated in the design as well as specifications and requirements of AB ORLEN Lietuva.
- 3.1.5 The Contractor shall provide its staff with offices, amenity and sanitary facilities and ensure good housekeeping and handling practices at such facilities and work places.
- 3.1.6 Contractor shall obtain all permits and authorizations for delivery/dispatch of its equipment and work tools in accordance with AB ORLEN Lietuva requirements.
- 3.1.7 To connect its electrical equipment to AB ORLEN Lietuva power networks, the Contractor shall fulfill all the requirements of the Owner according to the OHS Procedure for Contractors BDS-40. All temporary connections required for the Project shall be performed by the Contractor following the procedure BE-16 (Temporary Powering of Electrical Equipment, see Attachment\_5).

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- 3.1.8 Before starting the works, the Contractor shall develop a waste management plan and coordinate it with the Project Manager, head of the organizational unit wherein the works will be performed, as well as with the Environmental Department. Activities shall be conducted in compliance with AB ORLEN Lietuva Rules on Waste Management.
- 3.1.9 All works shall be performed in conformity with AB ORLEN Lietuva occupational health and safety procedures (see Attachment 5).
- 3.1.10 Works in the heat installations of the Power Plant shall be carried out under the instructions and assignments in compliance with the requirements of Rules for Safe Operation of Heat Installations, as approved with the 13 September 2016 Order No. 1-246 of the Minister of Energy of the Republic of Lithuania; works in the electrical facilities shall be carried out under instructions in compliance with the requirements of Rules for Safe Operation of Electrical Facilities, as approved with the 30 March 2010 Order No. 1-100 of the Minister of Energy of the Republic of Lithuania. AB ORLEN Lietuva also applies hazardous work permit system (RAP). For this purpose, the Contractor's work manager is required to pass a test for hazardous works.
- 3.1.11 Submitted proposal must be valid through to 30 April 2026.

### 3.2. Work description.

*[Describe the work in detail. Present all key information related to works, to work site, background, etc. Describe the sequence, if applicable. If you want contractor to do any additional work, specify what works need to be done as well as what and how many workers may be needed for that. Describe requirements for quality of works, equipment, etc.]*

- 3.2.1 According to the scope of design (Attachments 1, 2, 3), design the electrical, automation and mechanical/civil parts of design for RV-2.
- 3.2.2 Select and supply the required equipment (fan, electric motor) and materials, perform installation as well as start-up and commissioning works.
- 3.2.3 After installation, present 'As built' documents for all design parts, including all changes and corrections.
- 3.2.4 Present the reporting documentation, certificates of materials and equipment, test and measurement reports.
- 3.2.5 Specifics of construction and mechanical part:
  - 3.2.5.1 Following the design agreed with OL and OL requirements for installation, prepare flue gas duct and RV-2 revamp method statement, quality control plan, and agree them with the Owner's representative.
  - 3.2.5.2 For the disconnected flue gas duct, demount existing RV-2 unit, flue gas duct section and foundation.
  - 3.2.5.3 For the new RV-2, design and install new foundation, frame and its fastening elements.
  - 3.2.5.4 According to design, install the flue gas duct transitions, a new fan and an electric motor. Move the control/shut-off valves as needed.
  - 3.2.5.5 Perform inspections and tests according to the quality control plan.
- 3.2.6 Specifics of the electrical and automation part:
  - 3.2.6.1 Since it is planned to install a new recirculation fan of lower capacity, a new 0.4 kV electric motor is required.

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- 3.2.6.2 From the newly designed 0.4 kV switchgear Š52-04 cubicle lay cables to the new RV-2.
- 3.2.6.3 Reroute control and alarm measurement circuit cables from the 0.4 kV RV-2 cubicle to the control system from the existing 6 kV bay.
- 3.2.6.4 Under automation part of the design, PT100 thermocouples are planned for the control of the recirculation fan bearing temperature.

### **3.3. Requirements for documentation.**

*[Specify documents to be presented by Contractor after completion of works or milestone. Specify requirements for documentation or its content, format, standard, provide instructions, specify in detail documents to be submitted, etc.]*

- 3.3.1 Technical documentation shall be submitted to Owner according to the Procedure for Acceptance of Electrical Equipment as Fit for Service (Attachment 5).

### **3.4. Qualification requirements for Contractor.**

*[Specify exact qualification requirements to be met by the Contractor. Present requirements and indicate what document or confirmation must be presented by the Contractor or its subcontractors (if any). Indicate what process guarantees, warranties for supply of materials and/or execution of works must be provided by the Contractor, indicate any other important conditions (if any)]*

The Contractor shall have the permits and certificates required by the legislation of the Republic of Lithuania (valid certificate issued by the National Energy Regulatory Council) authorizing designing, operation and installation works. Indicate subcontractors, if any, and the certificates held by such subcontractors.

## **4. Materials, equipment, and services to be provided by the Owner.**

*[Specify what materials, equipment, machinery or services will be provided, if any, by the Owner free of charge to the Contractor]*

- 4.1 Temporary connection to the power grid in accordance with procedure effective in the Company. Connection to the compressed technical air and water supply pipelines.
- 4.2 Allow using semi-gantry crane for works.
- 4.3 Perform scaffolding works.
- 4.4 Perform the necessary programming for DCS.

## **5. Materials, equipment, and services to be provided by the Contractor.**

*[List everything to be provided by the Contractor as part of works and to be included in the price]*

- 5.1 The Contractor shall furnish all materials, mechanisms and equipment necessary for execution of the works. Any minor works not specified in SOWs, drawings or specifications but necessary to ensure the functionality and completeness of RV-2 unit are deemed included in the proposal price.
- 5.2 When submitting a proposal, the Contractor shall present specifications, descriptions and technical characteristics of the key equipment (fan, electric motor, new 0.4 kV cubicle).
- 5.3 As a part of its proposal, the Contractor shall provide a breakdown of work, separately indicating the designing works, equipment, materials as well as installation and start-up works.

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5.4 The Contractor shall have crane operations supervisor and crane operator of required qualification.

5.5 For dismantling of the old unit and installation of the new unit the Contractor shall have the required lifting equipment.

#### **6. Requirements for work completion.**

*[Specify when works will be deemed completed]*

6.1 Completion of the works in full scope.

6.2 Presentation of entire reporting documentation.

6.3 Cleaning and transfer of the territory.

#### **7. Work shall be considered accepted after:**

*[Indicate what document as proof of discharge of all obligations must be presented by Contractor and approved by the Owner]*

The Work Handover and Acceptance Statement is formalized.

#### **8. Requirements for work schedule.**

*[Specify deadlines for completion of works or specific milestones, indicate the schedule of execution of works and any other requirements to work schedule (e.g. its form, content, etc.), if any]*

The Contractor shall submit a work schedule together with its proposal. The scheduled date for the RV-2 revamp is 2027 (exact date to be indicated before signing the contract).

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