Annex no.1 of the tender documentation for below-threshold public contract

„Development and Delivery of 2L of Hydroisomerization Catalyst“

Catalyst for hydroisomerization of the diesel fraction obtained from Fischer-Tropsch waxes: n-alkanes with a chain length of C12 + in the absence of a sulfuric compound.

The demanded product "2L of Hydroisomerization Catalyst" will be used for a hydroisomerization process to improve the low-temperature qualities of the sulfur-free Fischer-Tropsch Diesel fraction.

The catalyst will be used by the contracting authority in a fixed bed technology equipment with operation temperature range from 0 to 500 ° C and a pressure range from 0 to 20 MPa.

Characteristics of feedstock: Fraction boiling from 180 ° C to 360 ° C, n-paraffin: 98% w / w.

* resistance in different gas composition, especially in N2, H2, CO2.
1. **Minimal technical requirements – operating conditions of the catalyst:**

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| **Requirements** | **Statement of the bidder (the bidder shall define the specifications fulfilled by the offered catalyst)** |
| The length of the test cycle for which the catalyst is required to operate in the unchanged range: 30 calendar days  |  |
| Length of individual catalyst particles: min. 2,5mm |  |
| Diameter of the particles of the catalyst: 1.0mm -1.5mm |  |

1. **Minimal technical requirements for the final product:**

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| **Requirements** | **Statement of the bidder (the bidder shall define the specifications fulfilled by the offered catalyst)** |
| Parameter "CFPP" of an isomerization product: at least -16 ° C or less |  |
| Liquid fraction yield (180 ° C +): min. 95% w/w |  |

1. **The following items are included in the delivery:**
2. The catalyst development: Selection and preparation of the catalyst, subsequent shaping, application of the active ingredient and calcination. Within this public contract, UniCRE requires engagement in the catalyst development following the above-mentioned development steps, namely: to execute the activation, screening and validation of the functionality of up to six functional samples of the catalysts (á 200 ml) made within the execution of this public contract.
3. Delivery: 2L of selected catalyst fulfilling the technical specification.
4. production documentation (research report) including instructions in Czech or English language

The research report shall include at least: a description of the catalyst production, a specification of the operating conditions, a procedure for achieving the desired yield of qualitative parameters, a specification of the catalyst preparation procedure for its reuse, once it has been used once or more (the catalyst will need to be deactivated and decontaminated of the admixtures which clogged the catalyst during the original catalytic reaction.

1. **Obligations of the supplier before and after the implementation of the service and other supplied components:**
2. Delivery of instructions for activation, and / or "running" of the catalyst
3. Presence of a qualified representative of the supplier on the place of fulfilment during the commencement of the testing (payments related to the import of the item, duties, taxes, import and export surcharges and any other fees associated with the delivery of the item)
4. Delivery of technical documentation, declaration of conformity, delivery of the subsequent evaluation report