Numer zapytania	Z139/10401/1/aktualizacja3
Tytuł zapytania	Designing a waste heat recovery system with a cogeneration at Nowy Sącz plant
Kupiec prowadzący:	Zwolenik, Janusz
Osoba kontaktowa w sprawach merytorycznych:	
Data złożenia:	2025-03-04 08:27:06
Waluta:	PLN

TERMINY W ZAPYTANIU

Data i godzina rozpoczęcia przyjmowania ofert:	2025-02-19 13:00:00
Data i godzina zakończenia przyjmowania ofert:	2025-03-13 12:00:00
Termin zadawania pytań (do kiedy?):	2025-03-13 11:00:00

Załączniki	tak

Treść zapytania

We invite you to submit an offer for our inquiry.

The service concerns the plant in **Poland, 33300 Nowy Sącz, Węgierska 188**

Contact persons:

Technical scope: Janusz Grochowski, 885 511 957, janusz.grochowski@tokaicobex.com

Commercial scope: Janusz Zwolenik, 885 510 790, janusz.zwolenik@tokaicobex.com

Note: the condition of being able to move around our plant is to have personal protective equipment, i.e. safety glasses, helmet, gloves and work boots.

To obtain additional information please sign and send the attached confidentiality agreement. The agreement can be signed in the traditional way or with a qualified electronic signature. Please send a scan of the signed agreement to: janusz.zwolenik@tokaicobex.com and to cc: janusz.grochowski@tokaicobex.com .

Please send the originals in 1 copie to the following address (in case of electronic signature, the original is sent via email):

Tokai COBEX Polska sp. z o.o.

Węgierska 188

33-300 Nowy Sącz, Poland

“Purchasing Department”

Inquiry scope:

General introduction

A lot of thermal processes are performed at the Tokai Cobex plant in Nowy Sącz, which generate residual heat.

In some areas this heat is successfully managed, but there are areas with high potential for thermal energy recovery that remain to be developed. These include:

•recovery boiler plant - use of steam produced in recovery boilers during the summer;

•cathode blocks after the graphitization process - the need for a sealed storage area for graphitized blocks for heat collection and recovery;

•cooling water pool area at the Impregnation Department.

The main objective is to generate electrical power by utilizing residual heat.

Recovery boiler plant area - present situation and purpose

Two recovery boilers are built into the plant, which produce steam using the heat contained in the flue gases emitted during the calcination process. Steam in the units is produced continuously during the operation of the gas calcination furnaces.

During the heating season, the steam in the production unit is piped via above-ground pipelines to heat exchangers installed in the central boiler shop, where thermal energy is transferred to heating water or hot water.

In the summer, in case of reduced demand for steam in the plant, a process of blowing steam into the atmosphere is carried out. The average blowing stream is 3.0 Mg/h. The amount of thermal energy contained in the steam produced in the recovery boilers during the summer period is about 7,200 MWh/year.

In order to utilize residual heat during the summer period, it is desirable to implement an ORC system in the recovery boiler plant area.

Cathode blocks after the graphitization process - present situation and purpose

The temperature of the blocks after the graphitization process is about 700°C. In purpose of lowering the temperature of the blocks, they are transported outside under a shed next to the production building. The cooled blocks are then forwarded to other process steps or stored.

The potential for recovery of heat energy from stripped units was estimated at about 5,000 MWh/year.

In order to increase the cooling intensity of the blocks and enable energy recovery, it is proposed to build a cooling tunnel, which will be coupled to an ORC module. The tunnel should be designed and constructed with technology that will ensure high temperature resistance and sealing of the system while storing and absorbing heat from the extracted blocks.

Cooling water pool at the impregnation department - present situation and purpose

Three impregnators are built into the Impregnation Department, to which the cathode blocks are supplied. The impregnators are then filled with water taken from a cooling pool at a temperature of about 50°C.

Character of the operation of the impregnators is rotating, with 14 saturation processes carried out per day. The process of cooling the cathode blocks in the saturators is conducted twice. After each filling of the impregnator after the required technological time, the water is returned to the cooling water pool.

The temperature of the return water after the first flooding is about 100°C, while the temperature of the return water after the second flooding, due to the lower temperature of the charge, is about 80°C.

The planned upgrade in the cooling water pool area consists of installing between the cooling water tank and the impregnators, an intermediate tank that also operates as a heat exchanger. The water from the heat exchanger could be used to supply the ORC module.

The potential for thermal energy recovery from the cooling water pool at the Impregnation Department has been estimated at about 4,500 [MWh/year].

Responsibilities on the contractor's side:

The quotation should include the following scope of work:

1.Inventory and analysis of the current state;

2.Proposing a concept for the development of an ORC system in each area, with a presentation of possible gains in electricity generation;

3.Designing the installation to a complete scope for each of the listed areas, including: the construction of the building infrastructure and the necessary installations, the method of heat exchange, the selection of appropriate

installation components, layout, etc;

4.Presentation of technical documentation, enabling the implementation of the installation in each of the listed areas (in terms of construction, sanitary installation, electrical, mechanical), with specifications for the equipment and materials used;

5.Presentation of investment costs, operating costs and potential profits from the implementation of the installation in the areas mentioned;

The offer should include separate quotes for the performance of design works for each of the mentioned areas.

Other commercial informations:

- Any prepayments must have security in the form of an irrevocable bank/insurance guarantee payable on first demand, the cost of which shall be borne by the Contractor.

- The bidder will provide the terms of the guarantee and the proposed payment terms in its bid

- The Contracting Authority reserves the right to secure the contract with a performance bond or guarantee amount, the cost of which shall be borne by the Contractor.

- The Bidder will send, together with the bid, any comments on the contract draft

Additional formal conditions - the purchaser's objections:

(1) the materials provided, if any, are covered by a confidentiality clause. Copying and dissemination for purposes unrelated to the scope of work necessary to submit a bid without the consent of the Contracting Authority is prohibited. Violation of the disclaimer will be enforced in accordance with the provisions of the Civil and Commercial Code.

(2) The Contracting Authority reserves the right to reject the bid without giving any reason for such.

(3) The cost of preparation and submission of the bid shall be borne solely by the Bidder.

(4) Submission of a bid in the tender procedure is tantamount to acceptance of the provisions of the contract draft, general technical specifications, and the GT&C.

(5) The Contracting Authority reserves the right to modify or supplement the content of inquiry scope.

(6) The Contracting Authority reserves the right to freely select the offer, postpone the date of the tender, negotiate the price and the possibility of cancelling the proceedings.

LISTA ZAŁĄCZNIKÓW

Lp.	Dokumenty
1.	Purchasing_Tokai_COBEX_Polska_en.pdf
2.	General technical specifications - TCX.pdf
3.	Contract for Services_EN.docx
4.	Tokai COBEX-NDA-unilateral-template_ENG.doc
5.	Designing a waste heat recovery in three areas.pptx

PRODUKTY

Lp.	Produkt	Indeks/Nr produktu	Ilość	Jednostka miary	Kategoria zakupowa
1.	Designing a heat recovery tunnel with a cogeneration system		1	usługa	USŁUGI INWESTYCYJNE
2.	Designing a heat recovery system in area of cooling water pool at the impregnation department		1	usługa	USŁUGI INWESTYCYJNE
3.	Designing a heat recovery system in area of recovery boilers		1	usługa	USŁUGI INWESTYCYJNE

KRYTERIA FORMALNE (WARUNKI UDZIAŁU W POSTĘPOWANIU):

Lp.	Kryterium
1.	Payment term: 45 due day net

DODATKOWE PYTANIA DO OFERTY

Lp.	Pytanie
Brak pozycji	

SKŁADANIE OFERT

Zezwól na składanie ofert częściowych	nie
Zezwól na składanie ofert na zamienniki	nie
Zezwól na dodatkowe uwagi do produktów	tak
Zezwól na korygowanie ofert do momentu zakończenia przyjmowania ofert	tak
Zezwól na składanie ofert w przypadku braku spełniania kryteriów formalnych	tak
Zezwól na składanie ofert w innych walutach	tak
Zezwól na składanie ofert na inne ilości	nie
Zezwól na składanie ofert wariantowych	tak