



GNS Gesellschaft für Nuklear-Service mbH · Postfach 10 12 53 · DE-45012 Essen

Kozloduy Nuclear Power Plant, Plc.  
CEO  
Mr. Valentin Nikolov  
Kozloduy 3321  
BULGARIA

Your Ref:

From: Dirk Becher  
VMT/Bd/Kb/2400151  
Project number: 11059650  
Phone: +49 201 109 - 1906  
Fax: +49 201 109 - 21906  
E-Mail: dirk.becher@gns.de  
Date: 2024-03-01

**Call for market consultation No. 53048 with the following subject matter:  
“Design, procurement and commissioning of a dry cask system for storage and transportation of spent nuclear fuel from VVER-1000 reactors”**

### **Indicative Offer**

Dear Mr. Nikolov,

We refer to your above-mentioned Call for market consultation No. 53048 including the Terms of Reference No. 22.HOG.TZ.53/01 (ToR) with the subject “Design, procurement and commissioning of a dry cask system for storage and transportation of spent nuclear fuel from VVER-1000 reactors”.

As per your request, please find attached our indicative offer for the design, manufacture, and supply of 36 metal dual-purpose casks of type CASTOR® 1000/19 including auxiliary equipment for cask handling and transport, the rendering of installation and commissioning services, as well as training sessions designated for the storage and transport of the spent fuel assemblies from the VVER-1000 reactor units 5 and 6 of Kozloduy Nuclear Power Plant.

Based on the technical specification provided by the ToR, we have elaborated this non-binding price indication together with the Bulgarian company GCR AD, which is intended as potential subcontractor within the project implementation phase.

The non-binding price indication for the total scope of supply

is appr. 148 million Euro.

We would like to point out that this rough and non-binding price indication is subject to the following boundary conditions:

#### **GNS Gesellschaft für Nuklear-Service mbH**

Frohnhauser Straße 67  
DE-45127 Essen  
Telephone +49 201 109-0  
Telefax +49 201 109-1100  
www.gns.de  
HRB Essen 11213

Commerzbank AG, Essen  
IBAN DE17 3604 0039 0124 3237 00, BIC COBADEFF  
Bayerische Landesbank Düsseldorf  
IBAN DE56 7005 0000 0004 3662 43, BIC BYLADEMM  
Deutsche Bank AG, Essen  
IBAN DE28 3607 0050 0151 7804 00, BIC DEUTDE33XXX

USt-IdNo. DE 171892160, Tax No. 111/5714/1234  
Chairman of the Supervisory Board: Dr. Guido Knott  
Managing Directors:  
Georg Büth  
Daniel Oehr (Chairman)  
Dr.-Ing. Jens Schröder



## Boundary Conditions

- The prices do not include any financing, guarantee costs, etc. and are based on acceptable payment conditions.
- Any modifications to the above scope of supply are not included in the indicative offer.
- All the above price indications are based on today's market situation and do not include VAT.
- Our indicative offer is based on the state of the art, the relevant legal regulations and the requirements and practice of authorities at the time of this indicative offer.
- This indicative offer does not constitute a binding contractual commitment or an obligation to participate in the upcoming tender procedure.

## Delivery Time

Depending on the time of contract signature and the needs of Kozloduy NPP, the detailed time schedule for the project should be agreed upon by the parties at a later stage. However, we have attached a preliminary and non-binding time schedule to this indicative proposal addressing the project activities given by item 1.8 of the ToR.

## Miscellaneous

The contract performance of GNS is subject to the condition that neither national nor international regulations of the foreign trade legislation as well as no embargos and/or other sanctions will be violated.

We hope that this indicative offer meets your expectations and we are looking forward to further discussions at your convenience.

With best regards

GNS Gesellschaft für Nuklear-Service mbH

Oehr, Daniel  
Essen  
2024.03.01  
15:34:19  
+01'00'

Digital signiert von Büth,  
Georg  
Datum: 2024.03.01  
14:59:12+01'00'

## Enclosure:

- Indicative Offer



**Indicative Offer:**

“Design, procurement, and commissioning of a dry cask system for storage and transportation of spent nuclear fuel from WWER-1000 reactors”

#	Name and description of work activities	Amount in euro VAT excl.
1	<p><b>Design of a metal dual purpose cask for transportation and storage for SNF of CASTOR® 1000/19 type</b>  including:  - Creation of design documentation/specifications  - Performing of safety calculations  - Draft of amendment of the Safety Analysis Report (SAR)</p>	3,100,000 €
2	<p><b>Preparation for safety analyses for normal operation and emergency situations</b></p> <ul style="list-style-type: none"> <li>• Safety analysis for <b>storage approval</b> <ul style="list-style-type: none"> <li>- Mechanical &amp; thermomechanical safety analysis</li> <li>- Thermal safety analysis</li> <li>- Shielding safety analysis</li> <li>- Criticality safety analysis</li> <li>- Release safety analysis</li> </ul> </li> <li>• Preparation / compilation of complete SAR for storage</li> <li>• Safety analysis for <b>transport / package approval</b> <ul style="list-style-type: none"> <li>- Mechanical &amp; thermomechanical safety analysis</li> <li>- Thermal safety analysis</li> <li>- Shielding safety analysis</li> <li>- Criticality safety analysis</li> <li>- Release safety analysis</li> </ul> </li> <li>• Preparation of SAR for transport / package approval</li> <li>• Transport / package approval licensing process</li> <li>• Provision of engineering and technical assistance as well as consulting services to Kozloduy NPP EAD when preparing documents based on the developed design and analysis, until conclusion to the licensing process.</li> </ul>	7,900,000 €

**Indicative Offer:**

“Design, procurement, and commissioning of a dry cask system for storage and transportation of spent nuclear fuel from WWER-1000 reactors”

3	<p><b>Design of equipment for cask handling, transport, loading, dispatch and storage</b></p> <ul style="list-style-type: none"> <li>- Handling Study</li> <li>- Creation of equipment specifications</li> <li>- Creation of manufacturing execution documents</li> <li>- Creation of operational instructions for equipment</li> </ul>	1,200,000 €
4	<p><b>Delivery of 36 (thirty-six) metal dual purpose casks of CASTOR® 1000/19 type</b></p> <ul style="list-style-type: none"> <li>- Manufacturing 36 metal dual purpose casks</li> <li>- Delivery of casks to Kozloduy NPP</li> </ul>	125,400,000 €
5	<p><b>Delivery of equipment</b></p> <ul style="list-style-type: none"> <li>- Manufacturing of equipment for: Cask (empty) handling and transport (off-site; on-site) Cask loading and dispatch at WSFSF Cask handling, transport, and storage at DSFSF (stage 1 and stage 1a)</li> <li>- <b>Manufacturing of a monitoring system during storage</b></li> <li>- Delivery of equipment to Kozloduy NPP</li> </ul>	9,500,000 €
6	<p><b>Installation and Commissioning</b></p> <ul style="list-style-type: none"> <li>- Creation of testing program for cold trials</li> <li>- Onsite support during hot commissioning</li> <li>- Onsite support during first loading</li> </ul>	600,000 €
7	<p><b>Training (theoretical and practical lessons)</b></p>	300,000 €
	<p><b>Total cost of work on the project, Euro, VAT excl.</b></p>	148,000,000 €



**Indicative Offer:**

“Design, procurement, and commissioning of a dry cask system for storage and transportation of spent nuclear fuel from WWER-1000 reactors”

**Preliminary delivery schedule:**

For the preliminary delivery schedule please refer to the attachment to this table. This timeline can be specified by agreement of the parties at a later stage considering the needs of Kozloduy NPP.

**Warranty period:**

<b>Casks:</b>	An adequate warranty period can be specified at a later stage considering a period which may be reflected in pricing.
<b>Equipment</b>	24 months as of the date of commissioning, but not more than 36 months from the date of delivery
<b>Spare Parts:</b>	24 months from as of the date signing the report for completed receiving inspection without remarks, but not more than 36 months from the date of delivery

**Manufacturer:** GNS Gesellschaft für Nuklear-Service mbH and various subcontractors still to be defined.

**Contact person:** GNS Gesellschaft für Nuklear-Service mbH  
Dr. Linus Bettermann  
Frohnhauser Straße 67  
45127 Essen  
Germany

**Offer validity period:** 31 December 2024

Preliminary Time Schedule

Scope	year 1				year 2				year 3				year 4				year 5				year 6				year 7				year 8				year 9				year 10				year 11			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Status 29.02.2024																																												
Design stage and preparation of the analyses and supporting doc.	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
Approval from the Bulgarian Nuclear Regulatory Agenxa (NRA)	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
Provision of engineering and technical assistance services to the Client until conclusion fo the licensing manufacturing of 4 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of equipment, delivery and acceptance	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
training of personnel an set up	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of 6 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of 6 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of 6 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of 6 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of 6 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											
manufacturing of 2 casks and delivery	[Gantt chart showing activity from Q1 Y1 to Q4 Y2]																																											

