

Expression of interest for transformers HyStock

Door
NV Nederlandse Gasunie

Afdeling
Procurement
Rapport

Gereed

Document
Interest document Hystock transformers

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1 Introduction

Gasunie intends to start a public procurement process for several transformers for HyStock. Prior to the actual tender, Gasunie would like to investigate the interest in the market in order to determine the best tender procedure.

1.1 About HyStock

Gasunie is working on the HyStock hydrogen storage project near Zuidwending in the Netherlands. Gasunie is planning to develop here the first large-scale hydrogen storage site in northwest Europe. The Zuidwending site is situated on top of a salt dome that is ideally suited to underground hydrogen storage. In this way energy can be stored. At the end of 2026, the first cavern and an above-ground installation will be put into operation. It is expected that four hydrogen caverns will be needed by 2030 to meet the demand.

1.2 About this Expression of interest

For a good preparation of an upcoming tender and for the technical preparation of the work site, we have a couple of questions. We deliberately have restricted the number of questions and made them easy to answer to minimize the effort for suppliers.

1.3 Responding to the questions

Please fill in attached Response form "Questionnaire Transformers HyStock.xlsx" and send this to j.draijer@gasunie.nl.

1.4 Schedule

Step	Date
Sending this document	Tue 9 th January 2024
Possibility to raise questions for respondent	Mon 22 nd January 2024
Answer from Gasunie on questions of respondent	Thu 25 th January 2024
Sending response (Questionnaire Transformers HyStock.xlsx)	Fri 16 th February 2024
Start tender (indicative)	March 2024

2 Scope of delivery

For this project a couple of transformers are needed of different types:

Transformer	1/2	3/4	5/6	7	8
TAG	0-TR-02E14/ 0-TR-02E16 HV/LV	0-TR-02E11/ 0-TR-02E13 HV/LV	0-TR-01C01/ 0-TR-02C01 HV/HV	0-TR-A09 HV/HV	0-TR-A10 HV/HV
Type	ONAN	ONAN	ONAN	ONAN	ONAN
Power	1 MVA	2.5 MVA	25 MVA	6.3 MVA	6.3 MVA
Primary Voltage	33,0 kV	33,0 kV	33,0 kV	33,0 kV	33,0 kV
Secondary Voltage	0,42 kV	0,42 kV	11,0 kV	20,0 kV	11,0 kV
Uk	6%	6%	10%	8%	8%
Vector group	Dyn5	Dyn5	Ynd5	Ynd5	Ynd5
Tapchanger	primary off-load 5 steps 2,5%	primary off-load 5 steps 2,5%	primary off-load 7 steps 2,5%	primary off-load 5 steps 2,5%	primary off-load 5 steps 2,5%
Area classification	non-hazardous	non-hazardous	non-hazardous	non-hazardous	non-hazardous
Protection	DGPT2	DGPT2	DGPT2	DGPT2	DGPT2
Temperature elements	PT100	PT100	PT100	PT100	PT100
Cable box primary	YES	YES	YES	YES	YES
Cable box secondary	YES	YES	YES	YES	YES
Surface treatment / coating	C6H	C6H	C6H	C6H	C6H
FAT *)	YES	YES	YES	YES	YES
SAT **)	YES	YES	YES	YES	YES
Scheduled @ site	End - 2026	End - 2026	End - 2026	Mid - 2025	Mid - 2025

*) Fat includes the following tests for every transformer:

ROUTINE TESTING:

- Winding resistance measurement
- Measurement of voltage ratio
- Measurement of phase displacement
- Short circuit impedance & load loss
- Measurement of no load loss
- Dielectric routine test
- Operational test of off-load tap
- Leak test/tightness test

TYPE TESTING:

- Temperature rise test
- Impulse lightning test

SPECIAL TESTING:

- Measurement of sound level
- Measurement of zero sequence
- Testing of protection devices DGPT2
- Measurement of surface treatment
- Frequency Response Analysis (HV/HV transformers only)

**) SAT includes:

- Separate source AC withstand test (HV/HV transformers only)
- Measurement of partial discharge (HV/HV transformers only)

3 Questions

Gasunie wishes to use this consultation to ask questions on the following topics. The answer are non-binding.

Please respond in the Excel.

1. What is the estimated price of the transformer (budget quote);
2. Which delivery time do you estimate (range). What would be the first production slot available in case of purchase order on 1st June 2024. Is the "scheduled @ site" possible for you?
3. What are the typical dimensions of each type of transformer;
4. What maximum weight in tons do we have to calculate with for the transformer;
5. What is the amount of oil of the transformer;
6. Price indexation will be part of the contract. What type of indexation do you propose per transformer. And at which moment the price shall be recalculated based on this index?
7. Would you participate in an upcoming public procurement tender (estimated start in March 2024)? Please explain what are your conditions/considerations for participating?

Remark 1 regarding transformer 7 and 8.

The secondary Voltage has not been determined yet. Either transformer 7 or 8 will be ordered, not both 7 and 8. So the contract is foreseen to cover 7 transformers.

Remark 2.

Based on the responses, Gasunie will determine the best purchasing strategy. If respondent is capable to deliver only part of the scope, respondent is nevertheless invited to respond. Gasunie may consider a division of the scope in lots.