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## Instructions to tenderers

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Open procedure

for

Purchase of the raster scanning magnets for the ESS project

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## 1. Introduction

These instructions to tenderers ("ITTs") apply to Aarhus University's Department of Physics and Astronomy's (the "Contracting Authority") purchase of the raster scanning magnets for the ESS project in accordance with the Contract Notice sent for publication on [...] in the Official Journal of the European Union.

Tenderers are kindly asked to read these instructions thoroughly in order to avoid irregular and thereby possibly unacceptable tenders.

## 2. Contracting Authority

The Contracting Authority for this tender procedure is:

Aarhus University  
Department of Physics and Astronomy  
Institute for Storage Ring Facilities - Aarhus (ISA)  
Ny Munkegade 120  
Building 1525, room 424  
8000 Aarhus C  
Denmark

The Contracting Authority is responsible for the preparation and completion of the tender procedure, and will award and be a party to the contract.

### 2.1 Contracting Authority's contact person

All inquiries to the Contracting Authority prior to the request to participate or the submission of a tender **must** be forwarded by email to:

Aarhus University, Purchasing Office  
Attn.: Lasse Krongaard  
Email: lak@adm.au.dk

### **3. Information on the tender procedure**

#### **3.1 Information on the tender**

A green field accelerator-based research facility is currently under construction in the vicinity of Lund, Sweden, and to be operational by the end of the current decade.

The European Spallation Source ("ESS") has been designed and will be constructed in collaboration with a number of existing European research facilities. The Contracting Authority has thus led a work package on the beam delivery system that brings the intense proton beam from the accelerator to the spallation neutron target. The transport line relies on a critical system of fast transverse raster scanning magnets ("RSMs") to dilute the beam on the spallation target. This raster system includes:

1. 8 raster magnets: 4 acting in each transverse direction
2. 8 power supplies, i.e. individual powering of the RSMs
3. Ceramic vacuum chambers
4. Equipment to verify the proper performance of the system and generate an interlock signal.
5. Mechanical support and alignment tools

Given the criticality of the system, a full two-magnet pre-series (magnets, supplies, vacuum chamber, cables, interlock box, support) of the system is requested. Appendix 1 contains the technical specifications for the RSMs and their associated power supplies.

The contract will include the responsibility for the magnetic, electrical, mechanical and thermal design of the magnets, their construction, followed by their magnetic, mechanical, electrical and thermal testing, and finally delivery to the Contracting Authority or ESS.

The specifications of the magnetic fields and associated tolerances of the magnets appear in Appendix 1 and shall be fulfilled.

The magnets as manufactured will consist of the ferrite yokes, the insulated copper coils, and all other mechanical brackets and fittings for their full assembly.

The air-cooled magnets must be fitted with the electrical termination blocks, coil interconnections and insulated protective covers.

The measurements of the magnetic fields also form part of the contract.

The project will consist of a number of phases with milestones. These will be as follows, the number of months counted from contract award:

1. Design phase
  1. Magnetic field calculations 2 months
  2. Power supply and cable design and simulations
  3. Detailed design report 5 months
  4. Factory Acceptance Test I & II proposal 5 months
  5. Validation of detailed design 6 months
  6. Validation of Factory Acceptance Test I 6 months
2. Pre-series manufacture
  1. Production and assembly of parts
  2. Implementation of local control system
  3. Factory acceptance test I
  4. Delivery to Contracting Authority
  5. Installation and assembly of pre-series 16 months
3. Pre-series long-term testing at Contracting Authority
  1. Site acceptance test I
  2. Magnetic and stability testing concluded
  3. Validation of Factory Acceptance Test II
  4. Initiate manufacture of production series 20 months
4. Production series manufacture
  1. Production and assembly of parts 32 months
  2. Factory acceptance test II 36 months
  3. Delivery to ESS, Lund, Sweden 40 months
5. Site acceptance test II concluded 50 months

Phase 3 is maintained by the Contracting Authority as are the "validation" steps. Phase 5 is carried out by ESS and the Contracting Authority. All other milestones and deliverables are to be completed by the Supplier.

Package	Package reference name	Number of units	FAT location	FAT procedure	SAT location	SAT procedure
I	"Pre-series"	2	Supplier	I	Contracting Authority	I
II	"Production series"	8	Supplier	II	ESS	II

A unit consists of a raster magnet, its power supply, all necessary cables, ceramic vacuum chambers, system performance monitors, and support stands. If parts of the pre-series are found to fully comply with the specifications, they could be reused in the production series.

### 3.2 Templates and appendices

The following documents shall be considered the tender documents.

- The Contract Notice
- These ITTs
- Template A, a solemn declaration concerning the tenderer's personal affairs
- Template B, Statement regarding consortium
- Template C, Statement regarding reservations
- Appendix 1, Technical Specifications
- Appendix 2, Bid Schedule.
- Appendix 3, Information on Raster Scanner Magnets and Magnet Power Supplies – *included for information purposes only*

### 3.3 Compliance with EU procurement rules

The procedure will be conducted according to the rules for open procedures under the Public Procurement Directive (Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts), implemented into Danish law by Executive Order no. 712 of 15 June 2011 on Procedures for the Award of Public Works Contracts, Public Supply Contracts and Public Service Contracts with subsequent amendments.

Nothing in these instructions shall in any way limit the rights granted to the Contracting Authority by Executive Order no. 712 of 15 June 2011 as set out in section 5.7.

## 3.4 Appendix 3, Raster Scanner Magnets and Magnet Power Supplies

Prior to the initiation of this tender procedure the Contracting Authority conducted a market research in order to assess what the market could offer. It was the Contracting Authority's initial assessment that only very few companies were able to develop the system needed.

The Danish company Danfysik A/S has previously delivered equipment to the Contracting Authority and was consequently asked to prepare a document describing the conceptual feasibility of the project in a Conceptual feasibility design report.

In order to ensure equal treatment of all potential tenderers in this procedure the document is, in its entirety, included in this tender as Appendix 3.

It is important to note that this document is included for information purposes only. The document shall in no way be considered technical specifications or otherwise have any relevance what-so-ever on the tenders submitted.

The document was prepared in 2013 and very significant parts thereof have subsequently been published and are therefore now part of the public domain.

The Contracting Authority has considered whether Danfysik A/S would obtain any competitive advantage because of the report. It has been concluded that that is not the case. As this is essentially now commonly known information, and as it has been for a while, any professional company within this area of expertise is likely to be familiar with the contents of the report. Furthermore, should Danfysik A/S be excluded from the tender process the competition would be significantly impeded as only very few companies are likely to be able to meet the requirements set out in this tender.

## 4. General requirements as to form and procedure

### 4.1 Tenderer's contact person

The tenderer must indicate a contact person in Appendix 2.

The Contracting Authority will direct any and all communication after the tender deadline to the person indicated by the tenderer by e-mail.

### 4.2 Deadline for submission

Tenders must be submitted by [...] 13:00 pm.

#### 4.3 Address for submission

Tenders must be delivered to the following address:

AU Økonomi og Bygninger  
Indkøb  
Fuglesangs Allé 26  
Bygn. 2640  
8210 Aarhus V  
Denmark  
Attn.: Lasse Krongaard  
Email: lak@adm.au.dk

A receipt stating the date and time of delivery can be issued upon request.

The request to participate must be supplied in the following form:

- One signed original
- One copy of the original
- One CD-ROM, USB memory stick or e-mail with a copy of the tender in electronic form. Electronic versions must be in MS Office or PDF format.

All tender documentation submitted must be marked "Purchase of the raster scanning magnets for the ESS project (AU227) – to be opened by CEN only".

A tender is considered on time provided that the physical original is submitted prior to the deadline. Requests for extension of the deadline will not be considered. Where the electronic copy is not submitted or where it is submitted with errors, the Contracting Authority will grant the tenderer the opportunity to submit an electronic version within a deadline set by the Contracting Authority.

In the event of discrepancies between the physical original and the copies the contents of the physical original shall apply and be binding upon the tenderer.

The deadline is enforced without any exceptions and it is the responsibility of the tenderer to comply with the deadline. A failure by a third party courier or the like, even if due to unexpectedly adverse weather or force majeure, will not be taken into consideration.



Reference is, however, made to section 5.7 below.

#### 4.4 Language

The language of the tender and any appendices must be Danish or English, or a combination of both.

Documents submitted by a tenderer in order to document what is set out in the tender, including but not limited to financial statements and permissions, may also be submitted in Norwegian, Swedish, German, Spanish and French.

#### 4.5 Fees

The tenderers will not be entitled to any fees for participation in this tender procedure.

#### 4.6 Ownership of tenders received

All documents submitted will be deemed the property of the Contracting Authority.

#### 4.7 Validity period

Tenders must be binding until four months after the tender deadline. The Contracting Authority may extend the validity period of the tender that is expected to win the procedure for a further three months.

#### 4.8 More tenders

The tenderers may submit more than one tender. In that case each tender should be submitted on a stand-alone basis and one tender should not make reference to another tender by the same tenderer. In the event of any doubts as to what is part of each tender the Contracting Authority may be obliged or entitled to reject all the tenders by that tenderer.

For the avoidance of doubt this shall mean that where one tenderer submits two tenders these two tenders will compete as if they had been submitted by independent parties.

## 5. Grounds for exclusion

### 5.1 Tenderer's affairs

Any tenderer will be excluded from participation if that tenderer:

- (a) has been the subject of a conviction by final judgment concerning participation in a criminal organisation, corruption, fraud or money laundering;
- (b) is bankrupt or is being wound up, where his affairs are being administered by the court, where he has entered into an arrangement with creditors, where he has suspended business activities or is in any analogous situation arising from a similar procedure under national laws and regulations;
- (c) is the subject of proceedings for a declaration of bankruptcy, for an order for compulsory winding up or administration by the court or of an arrangement with creditors or of any other similar proceedings under national laws and regulations;
- (d) has been convicted by a judgment which has the force of *res judicata* in accordance with the legal provisions of the country of any offence concerning his professional conduct;
- (e) has been guilty of grave professional misconduct proven by any means which the Contracting Authority can demonstrate;
- (f) has not fulfilled obligations relating to the payment of social security contributions in accordance with the legal provisions of the country in which he is established or with those of Denmark;
- (g) has not fulfilled obligations relating to the payment of taxes in accordance with the legal provisions of the country in which he is established or with those of Denmark; or
- (h) is guilty of serious misrepresentation in supplying the information required under this section or has not supplied such information.

## 5.1.1 Documentation

In order to prove that one or several of the aforesaid grounds for exclusion do not exist, the tenderer must make a solemn declaration in the form of Template A attached to these instructions to tenderers concerning the grounds for exclusion mentioned in paragraphs (a)-(d) and (f)-(g) above. The grounds for exclusion mentioned in paragraphs (e) and (h) above shall not be documented.

Please note that the solemn declaration must be signed. A lacking or incorrect solemn declaration may mean that the tender will be deemed non-conforming and rejected.

The tenderer is upon request obligated to provide further documentation that the aforesaid grounds for exclusion do not exist.

## 5.2 Tenderer's personal affairs

Consolidated Act no. 336 of 13 May 1997 on limitation of debtors' participation in public works contracts, *etc.*, stipulates that, in connection with the purchase of goods and services, the public contracting entity shall demand that any tenderer make a solemn declaration stating to which extent the tenderer has unpaid mature debt to any public authorities in the form of taxes, duties and contributions to social security schemes under Danish law or under the laws of the country in which the tenderer has its registered office.

### 5.2.1 Documentation

The tenderer must make a solemn declaration in the form of Template A attached to these instructions to tenderers.

Please note that the solemn declaration must be signed. A lacking or incorrect solemn declaration may mean that the tender will be deemed non-conforming and rejected.

## 5.3 Economic and financial standing

The tenderer must provide the below information and documentation in order to be considered able to perform the contract.

### 5.3.1 Documents that must be provided

- Annual reports from the two preceding financial years.

In the event that the minimum requirements regarding technical and professional ability, as mentioned in section 5.4.2, is met on basis of the capacity of one or more sub-contractors, the annual reports from the two preceding financial years must also be provided for that/those sub-contractor(s).

#### 5.3.2 Minimum requirements

The tenderer must have a turnover in the preceding financial year equivalent to at least EUR 10,000,000.

#### 5.4 Technical and professional ability

The tenderer must provide the below information and documentation in order to be considered able to perform the contract.

##### 5.4.1 Documents that must be provided

A list of references of similar deliveries including a description of:

- The customer
- The relevant contact person at the customer
- A description of the delivery
- The date of delivery
- The contract value

##### 5.4.2 Minimum requirements

The list of references must include at least one reference with all of the following characteristics:

- Production of a complete pulsed magnet system.
- A contract value of at least EUR 500,000.
- A completion date on or after 1 January 2010.

## 5.5 Consortium

If the tenderer is a consortium, all information set out in section 5.1 - 5.2 above must be forwarded for each individual consortium participant, and Template B must also be completed.

Please note that if it is considered necessary in order to ensure competition or to respect the principle of equal treatment, the Contracting Authority is entitled to decline a tender from a consortium, where one or more of the participating undertakings also participate in other consortia for the purpose of this tender procedure.

## 5.6 Sub-contractors

The tenderer may use sub-contractors without limitations.

Where the abilities of the sub-contractors are necessary for the tenderer to meet the requirements set out in section 5.3 or 5.4 the tenderer must demonstrate that the sub-contractor does indeed meet those requirements as well as demonstrate that the sub-contractor will offer its services to the tenderer for the performance of the contract. This may be demonstrated by submitting a statement to that end from the sub-contractor or by any other relevant means.

## 5.7 Consequence of not providing documentation

Tenders which do not include documentation as set out in sections 5.1 - 5.6 may be deemed non-conforming and may consequently not be taken into consideration. However, the Contracting Authority reserves the right to apply section 12 of Executive Order no. 712 of 15 June 2011. Please note, however, that the Contracting Authority is not obliged to seek the noncompliance of formal requirements corrected.

Generally, nothing in these ITTs shall in any way limit the rights granted to the Contracting Authority by Executive Order no. 712 of 15 June 2011.

## **6. Specifications for the layout of the tender**

### **6.1 Tender documents**

Tenders are made by filling out Appendix 2 - Bid Schedule as well as enclosing other relevant information.

The tenderer must also complete, sign and enclose Template A.

Furthermore, if relevant the tenderer must complete and enclose Template B and Template C.

### **6.2 Additional documentation**

Tenders may be accompanied by documentation other than that listed under section 6.1.

Such documentation must be included in a separate file or folder and must be clearly marked as additional material.

## **7. Contents of the tender**

### **7.1 Requirements**

In order for the tender to be acceptable it must at least:

- Meet all requirements and include all relevant information and documentation as described in section 5 above.
- Include a detailed description of the equipment offered and clearly state how the requirements in Appendix 1 are met.
- Include the price as set out in Appendix 2.
- Not contain any unacceptable reservations as set out in section 7.2.

### **7.2 Reservations**

Any reservations must be clearly and precisely specified in Template C.

The Contracting Authority is entitled to reject tenders containing reservations. Where the Contracting Authority accepts a reservation, the Contracting Authority shall set a price for the reservation in connection with the tender evaluation.

Reservations will *not* be permitted for basic features of the tender or features to which the Contracting Authority cannot set a price. Tenders containing reservations for basic features will result in a rejection of the tender.

Reservations regarding the contract will often concern basic features of the tender.

Consequently, tenders that include reservations are very likely to be rejected in full.

Where the tenderer identifies matters or requirements in the tender documents which have the effect that the tenderer is unable to submit a tender without reservations, or where a requirement is likely to make the purchase unnecessarily expensive for the Contracting Authority, the tenderer is advised to contact the Contracting Authority by submitting questions cf. the procedure covering this matter. Hereafter, the Contracting Authority will reconsider the requirements. This applies to technical as well as contractual requirements.

Where the tenderer submits its own sales and delivery terms or other standardised terms or conditions each term deviating from the contract will be considered a separate reservation.

### 7.3 Variants

Variants are not accepted. Tenderers may however submit more than one tender as set out above.

### 7.4 Lots

This tender does not contain any lots.

## 8. Tender evaluation

### 8.1 Evaluating completeness

The Contracting Authority will check that the tender is conforming, i.e., that it fulfils the following requirements:

- The tender is submitted within the deadline
- The tender is submitted to the right address

- The tender complies with all form and procedure specifications
- All requirements are met as set out in section 7.1
- The tender does not contain any unacceptable reservations

## 8.2 Award criterion

Tenders will be evaluated according to the award criterion "the economically most advantageous tender" based on the following sub-criteria:

Price	40 %
Technical merit	50 %
After-sales service and technical assistance	10 %

### 8.2.1 100-point scale

All tenders will be given a number of points for all of the above sub-criteria on a scale from 0-100 where 0 is the lowest possible score and 100 is the maximum.

### 8.2.2 Description of sub-criteria

#### 8.2.2.1 Price

Tenderers must state the total price in Appendix 2. The tender with the lowest price will receive the maximum score of 100 points.

The other tenders will be ranked relative to the lowest tender according to a formula determined by the Contracting Authority. The formula will not be made public prior to the tender deadline.

#### 8.2.2.2 Technical merit

All tenderers must comply with the requirements set out and explained in detail in Appendix 1.

Given the complexity of the purchase it is, however, obvious that two tenders that both comply with all minimum requirements are not necessarily equally good in relation to their technical merit (the quality of the technical aspects of the tender).

Tenderers are therefore invited to in detail explain, and where possible document, the technical merits of the equipment in question. Descriptions of the



quality of the equipment as well as its components will be taken into consideration.

A tender will not receive points for complying with the minimum requirements. Points will be awarded for the technical merit of the equipment. As a consequence, in a situation where two tenders both have equal technical specifications, but where tender A is built with high quality components that have been thoroughly tested (by the tenderer, a manufacturer or a sub-supplier) and tender B features standard quality parts, tender A will, *ceteris paribus*, receive a better score than tender B. Reference is made to Appendix 1 and the list contained therein.

A tender that fully complies with what the Contracting Authority (beforehand) has defined as an optimal (perfect) tender will receive 100 points. All other tenders will receive between 0 and 100 points assessed in relation to this optimum. This means that two tenders, although not equal, may in theory receive the same number of points. Furthermore it means that it is possible that no tender will receive 100 points. A tender that does in fact meet the minimum requirements but does so using very low quality components and does not offer any additional technical merit will receive 0 points.

### 8.2.2.3 After-sales service and technical assistance

All tenderers must comply with the requirements set out and explained in detail in Appendix 1.

Tenderers are invited to in detail explain, and where possible document, the after-sales service and technical assistance that is offered within the contract price.

A tenderer that offers extensive after-sale services and technical assistance will, *ceteris paribus*, be evaluated better than a tenderer that merely complies with the minimum requirements.

The Contracting Authority will especially appreciate tenders that promise short response times, short spare part delivery times, dedicated support staff, possibility of technical assistance by phone or email, short response times to phone calls and emails or the possibility of phone assistance outside normal business hours.

The above list is not exhaustive and in essence the Contracting Authority will award a high score to tenders that demonstrate that procedures are in place that

enables the tenderer to offer quick and high quality after-sales service and technical assistance to the Contracting Authority.

## 9. Negotiation ban

It is emphasized that negotiation between the Contracting Authority and tenderers is not permitted.

However, under special circumstances, a technical clarification process may be entered into with a tenderer with the intention of clarifying or supplementing the content of a tender.

If clarification or supplementary information is required, the tenderer will be contacted. Consequently, the principles of transparency and equal treatment must be upheld with regard to the basic concept of the tender.

## 10. Changes to the tender documents

### 10.1 Questions and answers

Questions must be submitted no later than on [...] at 10.00. Questions submitted after the deadline may however be answered if it is possible within the deadline set out below.

Questions must be sent by e-mail to:

Aarhus University, Purchasing Office  
Attn.: Lasse Krongaard  
Email: lak@adm.au.dk

E-mails containing questions must be marked "Questions regarding purchase of the raster scanning magnets for the ESS project (AU227)".

All questions should contain a clear reference to the section of the tender documentation to which they refer.

All questions and replies will be available in anonymous form no later than on [...] and will be accessible at [au.dk/udbud](https://au.dk/udbud).

It is the responsibility of tenderers to keep themselves up to date with any additional information that may be made public in the answers to questions.

The Contracting Authority will not forward these instructions, the appendices or any other document to tenderers by mail or email.

## 10.2 Additional information and changes to the tender documentation

In the event of changes to the original tender documentation, the changed documents will be made available no later than [...] at [au.dk/udbud](https://au.dk/udbud).

It is the responsibility of tenderers to keep themselves up to date with any additional information and changes to the tender documentation that may be made public.

## 11. Practicalities

### 11.1 Opening of tenders

Tenders will not be opened until after expiry of the deadline for submission. Tenderers are not entitled to attend the opening of the tenders or otherwise to receive information about the contents.

### 11.2 Notification of the result

All participants in the tender procedure will be advised simultaneously of the result by e-mail.

Notification to the winning tenderer that the tender has been successful will not necessarily mean awarding of the contract and such notification does not entail a binding obligation to enter into a contract. The contract shall not be considered finally awarded until the contract has been signed by all parties.

Likewise, the award notification shall not be considered a legal rejection of the other tenders. All tenders are considered binding until the validity period has lapsed.

Notification of the result of the tender procedure will be published in the Official Journal of the European Union in accordance with the applicable rules.

### 11.3 Confidentiality

The Contracting Authority undertakes to observe confidentiality with respect to any information supplied by tenderers involving business secrets.

This confidentiality undertaking will not apply where the Contracting Authority is required by law or ordered by a competent authority to disclose information to a third party.

Any information submitted which the tenderer deems to be particularly sensitive should be clearly marked to this effect in the tender opposite the relevant information. The Contracting Authority will then seek to prevent the disclosure of such information.

The total price as well as the main characteristics of the winning tender will be disclosed.

### 11.4 Strict confidentiality for the tenderer

The tenderer as well as the tenderer's staff, sub-suppliers and advisors must observe strict confidentiality with respect to any information about the Contracting Authority which they may receive in connection with the submission of a tender.

## 12. Timetable for the tender procedure

The following timetable shows the most important milestones in the tender process.

Table 1: Timetable for the tender procedure	
	Milestones
	The Contract Notice was sent for publication
	Final deadline for submission of written questions to tender documents
	Replies to written questions from all tenderers will be made available
	Final deadline for receipt of tenders at 13:00
	Expected contract award and standstill period.
	Expected contract signing.

## **13. List of tender documentation**

The following lists the tender documents to be included in the tender:

- Appendix 2, Bid Schedule, must be enclosed in completed form with all relevant documentation. Supplementary documentation may be submitted.
- Template A, a solemn declaration concerning the tenderer's personal affairs, must be enclosed in completed form.
- Template B, Statement regarding consortium, must be enclosed in completed form if relevant.
- Template C, Statement regarding reservations, must be enclosed in completed form if relevant.