

Denmark-Kgs. Lyngby: Super computer
OJ S 98/2021 21/05/2021
Contract notice
Supplies

Legal Basis:

Directive 2014/24/EU

Section I: Contracting authority

I.1. Name and addresses

Official name: Danmarks Tekniske Universitet — DTU

National registration number: 30060946

Postal address: Anker Engelunds Vej 1

Town: Kgs. Lyngby

NUTS code: DK012 Københavns omegn

Postal code: 2800

Country: Denmark

Contact person: Lasse Johansen

E-mail: lhojo@dtu.dk

Telephone: +45 45252525

Internet address(es):

Main address: <http://www.dtu.dk>

Address of the buyer profile: <https://eu.eu-supply.com/ctm/Company/CompanyInformation/Index/165863>

I.3. Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at: http://eu.eu-supply.com/app/rfq/rwlenrance_s.asp?PID=300090&B=DTU

Additional information can be obtained from the abovementioned address

Tenders or requests to participate must be submitted electronically via: http://eu.eu-supply.com/app/rfq/rwlenrance_s.asp?PID=300090&B=DTU

Tenders or requests to participate must be submitted to the abovementioned address

I.4. Type of the contracting authority

Body governed by public law

I.5. Main activity

Education

Section II: Object

II.1. Scope of the procurement**II.1.1. Title**

High Performance Computing system for DTU Physics (Niflheim)

II.1.2. Main CPV code

30211100 Super computer

II.1.3.

Type of contract

Supplies

II.1.4. Short description

DTU's Department of Physics invites tenders for a Linux cluster high performance computer system to be used for floating-point intensive numerical simulations using the researchers' own developed computer codes as well as commercial codes. The main scientific research focus is on studies of materials and materials design at the atomic scale using quantum-mechanical calculations. The primary quantum-mechanical codes employed are GPAW, VASP, and ADF.

II.1.5. Estimated total value

Value excluding VAT: 6 000 000,00 DKK

II.1.6. Information about lots

This contract is divided into lots: no

II.2. Description

II.2.2. Additional CPV code(s)

30211100 Super computer

II.2.3. Place of performance

NUTS code: DK012 Københavns omegn

II.2.4. Description of the procurement

DTU's Department of Physics invites tenders for a Linux cluster high performance computer system to be used for floating-point intensive numerical simulations using the researchers' own developed computer codes as well as commercial codes. The main scientific research focus is on studies of materials and materials design at the atomic scale using quantum-mechanical calculations. The primary quantum-mechanical codes employed are GPAW, VASP, and ADF.

Tenderers should offer very fast processors and compute nodes for such CPU-intensive applications. The compute nodes must be air cooled and have a 1U form factor. Floor space for a row of up to four (4) 42U/60 cm racks will be made available in an existing server room. The terms server and compute node are used interchangeably in this document to designate a single server computer unit.

The cluster must have a High performance and low latency 100 Gbit/s network fabric, in addition to 1 Gbit/s Ethernet networks. Pre-existing storage servers use NFS over Ethernet. The available power will be 30 kW per rack, and therefore each rack should contain at most 32 compute nodes in addition to the network equipment.

The system must be interoperable with a pre-existing Linux cluster named Niflheim whose configuration is described in the web page <https://wiki.fysik.dtu.dk/niflheim/Hardware>.

The system performance evaluation of offers will be based upon the code benchmark as specified in Appendix 3. The product of the benchmark result numerical value for a single compute node, times the number of compute nodes offered, should be as high as possible. The total contract value is fixed at DKK 5 000 000. The contract value is inclusive of customs, duties, and all expenses on the part of the contractor but exclusive of VAT. The contract value comprises the tenderer's fixed price products and services (elements/product types/equipment /services) until the products/services are delivered, installed, tested and put into operation. Tenderers therefore should offer the best high performance computer system within the fixed contract value.

II.2.5. Award criteria

Criteria below

Quality criterion - Name: Performance / Weighting: 65

Quality criterion - Name: Quality and functionality / Weighting: 25

Quality criterion - Name: Service / Weighting: 2

Quality criterion - Name: Delivery / Weighting: 1

Cost criterion - Name: Cost of optional equipment / Weighting: 5

Cost criterion - Name: Prices for minimum options / Weighting: 2

II.2.6. Estimated value

Value excluding VAT: 6 000 000,00 DKK

II.2.7. Duration of the contract, framework agreement or dynamic purchasing system

Start: 30/08/2021 End: 31/12/2021

This contract is subject to renewal: no

II.2.10. Information about variants

Variants will be accepted: no

II.2.11. Information about options

Options: yes

Description of options:

It must be possible to purchase the following options:

- factory integrated Ethernet cabling;
- Ethernet switches;
- fabric manager license;
- extra compute nodes and high speed fabric:
- servers;
- racks;
- PDUs;
- high-speed fabric switches;
- high-speed fabric cables.

II.2.13. Information about European Union funds

The procurement is related to a project and/or programme financed by European Union funds:

no

II.2.14. Additional information

Section III: Legal, economic, financial and technical information

III.1. Conditions for participation

III.1.2. Economic and financial standing

List and brief description of selection criteria:

The tenderers must state the specific average yearly turnover for the last 3 audited financial years.

The tenderers must state the Profit margin for the last 3 audited financial years, and the solvency ratio for the last audited financial year.

Minimum level(s) of standards possibly required:

The minimum level for suitability is 2 x the contract value calculated as an average of the turnover in the last 3 financial years.

The average for the Profit margin for the 3 financial years must minimum be 0 and the Solvency ratio must minimum be 0.

III.1.3. Technical and professional ability

List and brief description of selection criteria:

The tenderer must provide the following documentation on technical capacity:

A list of the most important and comparable works/services stating as a minimum the number of nodes, interconnect technology of the cluster, completed by the tenderer stating the contract date as well as name and telephone number of the recipient.

Comparable agreements means agreements with a value of at least DKK 2 500 000 concerning high performance computing system. The agreements, to which the reference refers, must not be more than 5 years old. The date is calculated from the last signature on the agreement referred to.

Minimum level(s) of standards possibly required:

As a minimum the tenderer must provide 2 references for comparable agreements.

Section IV: Procedure

IV.1. Description

IV.1.1. Type of procedure

Open procedure

IV.1.3. Information about a framework agreement or a dynamic purchasing system

IV.1.8. Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: yes

IV.2. Administrative information

IV.2.2. Time limit for receipt of tenders or requests to participate

Date: 30/06/2021 Local time: 14:00

IV.2.3. Estimated date of dispatch of invitations to tender or to participate to selected candidates

IV.2.4. Languages in which tenders or requests to participate may be submitted

English

IV.2.7. Conditions for opening of tenders

Date: 30/06/2021 Local time: 14:00

Section VI: Complementary information

VI.1. Information about recurrence

This is a recurrent procurement: no

VI.3. Additional information

In addition to the compulsory grounds for exclusion, cf. section 135-136 in the Danish Public Procurement Act, the voluntary grounds for exclusion in section 137(1)(1, 2 and 6) applies for this tender procedure.

VI.4. Procedures for review

VI.4.1. Review body

Official name: Klagenævnet for Udbud
Postal address: Nævnenes hus, Toldboden 2
Town: Viborg
Postal code: 8800
Country: Denmark
E-mail: klfu@erst.dk
Telephone: +45 35291000
Internet address: <http://www.klfu.dk>

VI.4.3. Review procedure

Precise information on deadline(s) for review procedures:

Complaint regarding pre-qualification:

Complaint regarding pre-qualification must be submitted no later than 20 calendar days after notification has been sent to the concerned candidates informing them who has been selected, if the notification includes the grounds for the decision, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, Section 1.

Complaint regarding award of contract:

Complaint regarding the award of a contract must be submitted no later than 45 calendar days from the date after the contracting authority has published a notice in the European Union Official Journal informing that the contracting authority has awarded/concluded a contract, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, Section 2, No 1.

Complaint regarding award of a contract under a framework agreement with a reopening of the competition (mini-tender):

Complaint regarding the award of a contract under a framework agreement with a reopening of the competition must be submitted no later than 30 calendar days from the date after the contracting authority has notified the concerned tenderers that a contract based on a framework agreement with a reopening of the competition has been awarded/concluded, if the notification includes the grounds for the decision, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, Section 2, No 2.

Complaint regarding the award of a framework agreement:

Complaint regarding the award of a contract must be submitted no later than 6 months from the date after the contracting authority has notified the concerned candidates and tenderers that a framework agreement has been concluded, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, Section 2, No 3.

Complaint regarding direct award of contract:

Complaint that the contracting authority, contrary to the public procurement act, has concluded a contract without prior publication of a contract notice in the European Union Official Journal must be submitted no later than 30 calendar days from the date after a contract award notice has been published by the contracting authority in the European Union Official Journal and that contract award notice includes the grounds for the decision to award the contract directly, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, section 3.

Compliant regarding public procurements below the EU threshold:

Complaint regarding violation of public procurements below the EU threshold must be submitted no later than 45 calendar days from the date after the contracting authority has notified the Tenderers about the award of contract, if this notification includes the grounds for the decision; and no later than 6 months from the date after the contracting authority has notified the concerned candidates and tenderers that a framework agreement has been concluded, if the notification includes the grounds for the decision, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, section 4, No 1 and 2. Compliant regarding pre-

qualification on procurement below the EU threshold must be submitted no later than 20 calendar days from the date after the contracting authority has sent a notification to the concerned candidates who has been selected and this notification includes the grounds for the decision, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders)) § 7, Section 5.

VI.4.4. Service from which information about the review procedure may be obtained

Official name: Konkurrence- og Forbrugerstyrelsen

Postal address: Carl Jacobsens Vej 35

Town: Valby

Postal code: 2500

Country: Denmark

E-mail: kfst@kfst.dk

Telephone: +45 41715000

Internet address: <http://www.kfst.dk>

VI.5. Date of dispatch of this notice

18/05/2021