***Request for Proposal***

***NWSC-3: NCAR’s Next-Generation High-Performance Computing and Storage System***

*Released 2 April 2020
University Center for Atmospheric Research
UCAR RFP000074*

Table of Contents

[1](#_30j0zll) REQUEST 3

[1.1](#_1fob9te) Background 3

[1.2](#_2et92p0) Scope of the NWSC-3 Procurement 4

[1.3](#_1t3h5sf) NWSC-3 Funding 5

[2](#_4d34og8) INSTRUCTIONS TO OFFERORS 5

[2.1](#_2s8eyo1) Proposal Due Date and Time 5

[2.2](#_17dp8vu) Questions Due Date and Time 5

[2.3](#_3rdcrjn) NWSC-3 RFP Website 5

[2.4](#_26in1rg) Registration of Interest 5

[2.5](#_lnxbz9) NWSC Virtual Site Visit for Prospective Offerors 6

[2.6](#_35nkun2) RFP Revision History and UCAR Communications 6

[2.7](#_1ksv4uv) Proposal Submission 6

[2.8](#_44sinio) Proposal Content and Format 7

[2.9](#_1y810tw) Preference for US Manufactured Systems 10

[2.10](#_4i7ojhp) Authority to Commit the Offeror 10

[2.11](#_2xcytpi) Proprietary or Confidential Information 10

[2.12](#_1ci93xb) Export Controlled Information 11

[2.13](#_2bn6wsx) Expenses Related to Proposal Submission 11

[2.14](#_qsh70q) Amendments 11

[2.15](#_1pxezwc) Late Submissions, Modifications, and Withdrawal of Proposals 11

[2.16](#_2p2csry) Period for Acceptance of Proposals 11

[2.17](#_3o7alnk) Acceptance of Terms and Conditions 11

[2.18](#_ihv636) Place of Performance 12

[2.19](#_1hmsyys) Delivery 12

[2.20](#_41mghml) Taxes 12

[2.21](#_vx1227) Trademarks 12

[2.22](#_3fwokq0) Live Test Demonstration 12

[2.23](#_4f1mdlm) Schedule 13

[3](#_2u6wntf) PROPOSAL EVALUATION AND AWARD FACTORS 14

[3.1](#_3tbugp1) Award Factors 14

[3.2](#_28h4qwu) Award Guidance 15

[4](#_nmf14n) REFERENCES 16

# REQUEST

The [University Corporation for Atmospheric Research](https://www.ucar.edu/) (UCAR), on behalf of the [Computational Information Systems Laboratory](https://www.cisl.ucar.edu/) (CISL) at the [National Center for Atmospheric Research](https://ncar.ucar.edu/) (NCAR), is issuing this Request for Proposal (RFP) for a next-generation High-Performance Computing (HPC) system and Parallel File System (PFS), hereinafter referred to as the NWSC-3 system.

Specifications for the NWSC-3 system and its software, support and maintenance services, desirable options, benchmark rules, acceptance testing and criteria, and project management criteria are provided in the attachments to this RFP.

Proposals must be submitted in accordance with the Instructions to Offerors below. Failure to comply with these instructions or submission of an incomplete proposal may result in the rejection of the proposal.

This RFP is comprised of the following items, which are available from the NWSC-3 RFP website [1]:

1. UCAR RFP000074 NWSC-3 RFP (this document)
2. UCAR RFP000074 Attachment 1 NWSC-3 Technical Specifications
3. UCAR RFP000074 Attachment 2 NWSC-3 Benchmark Rules
4. UCAR RFP000074 Attachment 2A NWSC-3 Benchmark Results Spreadsheet
5. UCAR RFP000074 Attachment 3 UCAR Representations and Certifications
6. UCAR RFP000074 Attachment 4 Terms and Conditions
7. UCAR RFP000074 Attachment 4A NSF Flow Downs
8. UCAR RFP000074 Attachment 4B Statement of Work
9. UCAR RFP000074 Attachment 4C Contact Information
10. UCAR RFP000074 Attachment 4D Subcontractor Proposal
11. UCAR RFP000074 Attachment 4E Deliverable Requirements
12. UCAR RFP000074 Attachment 4F Acceptance Criteria and Testing
13. UCAR RFP000074 Attachment 4G Project Management Requirements
14. UCAR RFP000074 Attachment 4H Request for Proposal Technical Documents
15. UCAR RFP000074 Attachment 5 Cheyenne Workload and Usage Analysis
16. UCAR RFP000074 Attachment 6 NCAR GLADE Integration Guide
17. UCAR RFP000074 Attachment 7 NWSC Module A and B Layout (AutoCAD file)
18. NCAR Benchmarks, available on the NCAR HPC Benchmarks website [2]

## Background

CISL and the resources it manages support over 1,000 users and 200 applications in the atmospheric and related sciences. The primary models used by these communities include:

* the Community Earth System Model (CESM) and its constituent components which form a fully-coupled, community global climate model;
* several variants of the Weather Research and Forecasting (WRF) model which serves as a mesoscale numerical weather prediction system designed to serve both atmospheric research and operational forecasting needs;
* the Model for Prediction Across Scales (MPAS), a collaborative model using unstructured Voronoi meshes to provide both quasi-uniform and locally refined grids for atmosphere, ocean, and other Earth-system simulation components;
* and a broad range of applications for the post-processing, visualization, and Machine Learning/Deep Learning (ML/DL) analysis of simulation and observational data.

With over half of the delivered core hours of NCAR’s current Cheyenne HPC system [3] dedicated to running the CESM, NCAR’s discipline-specific user community results in a more narrowly focused applications base than for many other publicly-funded HPC centers in the United States.

## Scope of the NWSC-3 Procurement

This RFP requests proposals for a next-generation, integrated HPC system and PFS solution to support the rapidly increasing computational demands of NCAR’s atmospheric science community.

The NWSC-3 system must provide a significant upgrade in computational capabilities, with a target increase of at least three (3) times greater than the sustained performance of NCAR’s current Cheyenne system [3]. The NWSC-3 system will be installed in the NCAR Wyoming Supercomputer Center (NWSC) in Cheyenne, WY, and is expected to be operated and maintained for a minimum of five (5) years subsequent to the final HPC system acceptance, with options to extend up to two (2) years beyond that. The system must integrate with NCAR's IBM Spectrum Scale™-based[[1]](#footnote-1) Globally Accessible Data Environment (GLADE) file system and Campaign Store services, the HPSS-based[[2]](#footnote-2) NCAR Archive, and an Ethernet-based Local Area Network (LAN).

The NWSC-3 procurement includes the following components:

* NWSC-3 Test HPC system and Test PFS delivered and accepted in September 2021.
* NWSC-3 Production HPC system and Production PFS delivered and installed so that successful completion of acceptance testing occurs no later than December 2021.

See Attachment 1 NWSC-3 Technical Specifications for a complete description of the required and optional components of the NWSC-3 system and their specifications.

## NWSC-3 Funding

The available funding for the NWSC-3 procurement is US$37.0 million.

The funding described above is the not-to-exceed amount for all elements listed in §1.2 and includes all equipment, software, support, and maintenance for five (5) years of operation. Final quantities and delivery dates for all NWSC-3 elements shall be determined during subcontract negotiations. Note that it is possible for an Offeror’s proposal to exceed the available funding since the total of all options will exceed this amount and not all options will be exercised.

This is a best-value procurement. Proposal evaluation and award factors are described in §3.

# INSTRUCTIONS TO OFFERORS

Prospective Offerors are to submit proposals in response to this RFP as described in the following subsections.

## Proposal Due Date and Time

Firm, fixed-price proposals are due no later than 1500 Mountain Daylight Time (MDT) on Friday, 15 May 2020.

## Questions Due Date and Time

All questions concerning the requirements of this RFP must be submitted via email to the attention of the Subcontract/Procurement Manager listed below by 1700 MDT on Friday, 24 April 2020. All questions with corresponding answers will subsequently be distributed to all prospective Offerors via the NWSC-3 RFP website [1].

## NWSC-3 RFP Website

This RFP, and all information related to it, including any amendments, forms, and other files to be used in preparing and submitting proposals, is available to the Offeror at the NWSC-3 RFP website [1]. The NWSC-3 RFP website [1] will be used, in addition to email notification(s) from the Subcontract/Procurement Manager, for communications by UCAR to the prospective Offerors regarding this RFP.

##  Registration of Interest

Any prospective Offeror who anticipates responding to this RFP shall officially register interest via email to the UCAR Subcontract/Procurement Manager, including the name, corporate affiliation, mailing address, telephone number, and email address of the Offeror’s primary and secondary contacts. Registered Offeror contacts will receive notification from the Subcontract/Procurement Manager of any new information regarding the RFP and/or posted to the NWSC-3 RFP website [1].

## NWSC Virtual Site Visit for Prospective Offerors

UCAR will host an NWSC Virtual Site Visit for prospective NWSC-3 Offerors from 0800 to 1200 Mountain Daylight Time (MDT) on Friday, 24 April 2020. The NWSC Virtual Site Visit will include an overview and tour of the NCAR Wyoming Supercomputer Center (NWSC) located in Cheyenne, Wyoming. To join the NWSC Virtual Site Visit on Friday, 24 April 2020, Offerors must provide the name, affiliation, mobile phone number, and email address of all online attendees to the UCAR Subcontract/Procurement Manager no later than 1700 MDT on Monday, 20 April 2020.

## RFP Revision History and UCAR Communications

After the initial release of this RFP, amendments to it will be communicated by the Subcontract/Procurement Manager through an email notification to registered Offerors and by the reissuing of the modified documents on the NWSC-3 RFP website [1]. All changes will be documented in a separate **UCAR RFP000074 NWSC-3 Amendments** file, available from the NWSC-3 RFP website [1].

Additionally, UCAR responses to Offeror questions regarding this RFP, and any other formal communications by UCAR, will be provided in writing via a **UCAR RFP000074 NWSC-3 Communications** file, also available from the NWSC-3 RFP website [1].

## Proposal Submission

The Offeror shall submit one (1) electronic copy of the proposal, with all supplemental material, to the UCAR Contracts Office as indicated below. All proposal materials must be submitted in an electronic form by the Offeror and received by the UCAR Subcontract/Procurement Manager no later than the proposal due date and time specified above.

|  |  |
| --- | --- |
| Email | apropes@ucar.edu |
|  |  |
| US mail | University Corporation for Atmospheric Research |
|  | Attn: Alison Propes, Subcontract/Procurement Manager |
|  | Contracts Office |
|  | P.O. Box 3000 |
|  | Boulder, CO 80307-3000 |
|  |  |
| Hand carried | University Corporation for Atmospheric Research |
|  | Attn: Alison Propes, Subcontract/Procurement Manager |
|  | Contracts Office |
|  | 3375 Mitchell Lane |
|  | Boulder, CO 80301 |
|  |  |
| Commercial carrier | University Corporation for Atmospheric Research |
|  | Attn: Alison Propes, Subcontract/Procurement Manager |
|  | Contracts Office |
|  | 3090 Center Green Drive |
|  | Boulder, CO 80301 |
|  |  |
| Additional contact | Phone: 303-497-8877 |
| Information | Fax: 303-497-8501 |

Acceptable media for electronic submission includes email attachment, USB flash drive, or on ISO 9660-compliant DVD-ROM, USB flash drive, or USB hard drive. If the Offeror’s proposal is submitted via email, it shall be submitted in parts via multiple, enumerated emails, each of which do not exceed 20 MB (megabytes) in size.

Acceptable formats for electronic submission of proposal materials are Adobe PDF, Microsoft Word, Microsoft Excel, and AutoCAD DWG. Pricing information, benchmark performance results, and other tabular data shall be provided in Microsoft Excel files. Proposal files must not contain additional embedded files.

## Proposal Content and Format

The Offeror’s proposal shall consist of two volumes, a “Business/Price Volume” and a “Technical Volume,” each containing the information as specified in §2.8.1 and §2.8.2, respectively. UCAR’s proposal evaluation process separates the technical assessment of value from the business/price assessment; therefore, **the Technical Volume must be devoid of pricing information**.

The information supplied in each volume of the Offeror’s proposal shall be unambiguous, detailed, and sufficient for UCAR to make an informed assessment of the Offeror's capability to perform the work as specified in Attachment 1 NWSC-3 Technical Specifications, Attachment 4F Acceptance Criteria and Testing, and Attachment 4G Project Management Requirements.

Should the Offeror's technology offer certain architectural choices which may be advantageous for UCAR to consider, the Offeror may propose design options. The Offeror shall submit a single proposal that covers all design options, with the differences in options presented in side-by-side comparisons in both the Technical and Business/Price Volumes.

The Offeror’s proposal must be clear, complete, readily legible, paginated, and conform to the following requirements:

1. Each section of the response shall identify the corresponding section, paragraph, and bullet numbering of the RFP and/or its attachments.
2. The total page count for the combined Technical and Business/Price volumes of the Offeror’s response shall not exceed four hundred (400) printed pages and shall use a common typeface at a font size of 11 points or larger. A font size of less than 11 points may be used for the following: mathematical formulas or equations; figure, table, or diagram captions; and/or when using a symbol font to insert Greek letters or special characters. The Offeror is cautioned, however, that the text must still be legible when printed.
3. There shall be no more than six lines of text within a vertical space of one inch when printed.
4. Top, side, and bottom page margins (which may include page headers and footers) must be at least one inch when printed.
5. Note that a double-sided printed sheet is considered two pages.
6. Page limits include attachments, appendices, and all supplementary documentation.
	* 1. **Business/Price Volume**

The Business/Price Volume shall be submitted in sufficient detail to enable UCAR to conduct an analysis to determine the Offeror’s ability to execute the proposed work as well as evaluate the reasonableness and fairness of the proposed pricing.

The Business/Price Volume of the Offeror’s proposal shall include the following information:

1. An executive summary of the Offeror’s proposed NWSC-3 solution(s).
2. The Offeror’s most current audited financial statement/annual report.
3. The Offeror’s corporate information, including history, number of years in business, and expertise relevant to HPC and storage technologies, organizational chart, and awards and recognitions.
4. Product development or expansion plansthat directly affect the Offeror’s proposal and/or the Offeror’s proposed products.
5. The Offeror’s past experience with contracts of a similar size and nature, including a reference list of names, affiliations, and contact information for similar accounts that are currently active or completed. A minimum of three such references must be provided.
6. Resumes with the qualifications of the proposed personnel, their role on the project, and sufficient experience detail to permit evaluation.
7. Insurance certificate in accordance with the requirements identified in Article 22 “Insurance Requirements” of Attachment 4 Terms & Conditions.
8. A completed and signed Representations and Certifications form; see Attachment 3 UCAR Representations and Certifications.
9. All pricing information, including options pricing, shall be provided in an Excel spreadsheet, with an accompanying narrative in the Business/Price Volume.
10. Prices for each major component of the NWSC-3 systems hardware, software, hardware maintenance, software licensing and support, and delivery and installation, as described in the Offeror’s Technical Volume, shall be independently itemized. All applicable pricing components shall be itemized by materials, non-recurring engineering (NRE), recurring labor, lower-tiered subcontracts, maintenance, equipment, facilities, travel, freight, insurance, installation, etc. Pricing information shall also include the Offeror’s list and General Services Administration (GSA) pricing where available. UCAR is eligible for GSA and educational discounts; the Offeror must include a statement that the prices quoted do not exceed the prices charged to all other customers, including the U.S. Government (e.g. GSA) for like or comparable quantities and conditions for sale.
11. Prices for all proposed options, as described in the Offeror’s Technical Volume, shall be separately itemized and described. Separate itemized pricing for any additional software, maintenance, and support services for proposed options shall be included.
12. A proposed payment schedule shall be provided, including all equipment delivery, installation and acceptance stages, software purchase and licensing, and support and maintenance costs.
13. If the Offeror takes exception to any of the terms and conditions contained in the following sample subcontract documents, those exceptions must be noted in the Offeror’s proposal (utilizing Microsoft Word comments and/or change tracking) and the rationale for such exceptions must be fully described in an appendix to the Business/Price Volume. Exceptions to the contents of the following documents must be noted:
	1. Attachment 4 Terms & Conditions, and
	2. Attachment 4A NSF Flow Downs.

The Offeror may also provide modified copies of Attachment 4B Statement of Work, Attachment 4C Contact Information, and/or Attachment 4E Deliverable Requirements; note, however, that the final content of those documents is reserved for negotiations. There will be no negotiation of UCAR Terms and Conditions not previously noted as exceptions in the change-tracked sample subcontract documents and described in the Business/Price Volume of the Offeror's response to this RFP.

* + 1. **Technical Volume**

The Technical Volume shall be submitted in sufficient detail to enable UCAR to conduct a technical analysis to determine the Offeror’s ability to manufacture, deliver, install, and test the proposed system(s) as well as maintain and support the systems in a manner which achieves the specified system lifetime and reliability.

The Technical Volume of the Offeror’s proposal shall include the following information:

1. An executive summary of the Offeror’s proposed NWSC-3 solution(s) including a detailed explanation of the Offeror’s approach and methods to be used in meeting or exceeding the technical specifications.
2. A thorough and detailed technical response to Attachment 1 NWSC-3 Technical Specifications, including technical information for all proposed options, identification of risks and an explanation of how the Offeror plans to mitigate these risks to ensure the Offeror's ability to meet the scheduled delivery dates, acceptance testing, and proposed system reliability. This section of the Technical Volume shall be formatted to quote each technical requirement, followed by the Offeror’s response. The Offeror’s Technical Volume shall retain the section and item numbering contained in Attachment 1 NWSC-3 Technical Specifications.
3. An itemized and detailed response to Attachment 2 NWSC-3 Benchmark Rules. This section of the Technical Volume shall be formatted to quote each benchmark rule, followed by the Offeror’s response. The Offeror’s Technical Volume shall retain the section numbering contained in Attachment 2 NWSC-3 Benchmark Rules. The Offeror’s response shall include:
	1. A detailed description of the system(s) used to run the NCAR benchmark applications.
	2. A narrative of the Offeror’s benchmark methodology and results.
	3. If applicable, a detailed description of the Offeror’s performance projection model and how the Offeror determined the NWSC-3 performance projections from the measured performance on the Offeror’s benchmark system(s).
4. NWSC-3 benchmark modified source files and output files, as identified in Attachment 2 NWSC-3 Benchmark Rules.
5. A completed copy of Attachment 2A NWSC-3 Benchmark Results spreadsheet containing the Offeror’s benchmark performance metrics and projections.
6. If the Offeror takes exception to any of the terms and conditions contained in the following sample subcontract documents, those exceptions must be noted in the Offeror’s proposal (utilizing Microsoft Word comments and/or change tracking) and the rationale for such exceptions fully described in the Technical Volume. Exceptions to the contents of the following documents must be noted:
	1. Attachment 4F Acceptance Criteria and Testing
	2. Attachment 4G Project Management Requirements

The Offeror may also provide modified copies of Attachment 4B Schedule B Statement of Work, Attachment 4C Contact Information, and/or Attachment 4E Deliverable Requirements; note, however, that the final content of those documents is reserved for negotiations.

## Preference for US Manufactured Systems

UCAR will give preference to proposals offering systems manufactured in the United States and considered to be a domestic end product as defined in the Buy American Act (41 U.S.C. §§ 8301 – 8305), Executive Order 10582, 17 December 1954, Executive Order 13788, 18 April 2017, and Executive Order 13858, 31 January 2019.

## Authority to Commit the Offeror

The person signing the Offeror’s proposal must have the authority to commit the Offeror and its organization to all of the provisions of the proposal.

##  Proprietary or Confidential Information

Any information in the Offeror’s proposal that is considered proprietary, trade secrets, commercial or financial information that is privileged, confidential, or of a personal nature must be specifically marked and identified as such. Note that marking every page in the proposal as proprietary or confidential is not a recommended way to do this.

##  Export Controlled Information

Proposals that contain export controlled technical information must be clearly identified with the appropriate International Traffic in Arms Regulations (ITAR) or Export Administration Regulations (EAR) classification. Where possible, export controlled technical information should be separated from the rest of the proposal and included as an appendix to the Technical Volume (i.e. an electronic document separate from the Technical Volume) and flagged with the appropriate identifying classification. If separation is not possible, the section(s) of the proposal that contain export controlled technical information shall be flagged as export controlled, with appropriate identifying classification.

##  Expenses Related to Proposal Submission

UCAR will not pay any expense incurred in the preparation or delivery of any proposal submitted in response to this RFP.

##  Amendments

If this RFP is amended, then all attributes of the RFP that are not modified shall remain the same. The Offeror will implicitly acknowledge receipt of any amendment to this RFP by downloading such amendment(s) from the NWSC-3 RFP website [1], or explicitly via email to the Subcontract/Procurement Manager. If the RFP is amended, the Offeror will be given a reasonable amount of time to submit a revised proposal, if required.

## Late Submissions, Modifications, and Withdrawal of Proposals

Any proposal received after the proposal due date and time will not be considered, unless it is deemed to be in the best interest of UCAR. However, the Offeror must provide proof that the proposal was delayed for causes beyond the Offeror’s control.

A modification to a proposal, previously received by the due date and time, which makes its terms more favorable to UCAR, will be considered whenever it is received and may be accepted for consideration at UCAR’s discretion.

Proposals may be withdrawn after submission by written notice of the Offeror to the Subcontract/Procurement Manager.

## Period for Acceptance of Proposals

The Offeror agrees to furnish any or all items at the price set forth in the Offeror’s proposal if it is accepted within three hundred sixty (360) calendar days from the proposal due date and time specified above. The Offeror may specify a longer time period.

## Acceptance of Terms and Conditions

Any contract resulting from this RFP shall be subject to the requirements, including terms and conditions, contained in this RFP and its attachments. Any exception to the terms and conditions specified in this RFP must be stated in the Offeror’s proposal or it will be presumed that the Offeror has no exceptions and that the solution described in the Technical Volume and Business/Price Volume covers the requirements as defined herein.

## Place of Performance

The “place of performance” shall be: 1) the NCAR-Wyoming Supercomputing Center in Cheyenne, WY, 2) the NCAR Mesa Laboratory in Boulder, CO, and 3) the Offeror’s facilities, unless otherwise specified in the Offeror’s proposal. The Offeror shall clearly identify in the proposal the primary location where all services will be conducted.

## Delivery

All proposal materials shall be delivered to the Subcontract/Procurement Manager as specified in §2.7.

The delivery address for the NWSC-3 system is:

NCAR Wyoming Supercomputing Center
8120 Veta Drive
Cheyenne, WY 82009

## Taxes

UCAR is a non-profit organization and maintains an exemption status from any federal, state, or local sales, use, or similar tax applicable to the purchase or use of any goods and/or services to be furnished under this proposal. In the event that any taxes are not subject to the exempt status and are levied against any goods and/or services provided, the Offeror shall itemize those taxes and furnish this tax information as a separate line item within the Business/Price Volume. The final negotiated price will not include taxes determined to fall under the exemption category. The Offeror shall make a best effort to obtain all necessary exemptions. UCAR shall provide the Offeror any necessary support documentation.

## Trademarks

All names and/or descriptions used in this RFP which are trademarks, trade or brand names, or other references to proprietary products, are hereby acknowledged as the property of their respective owners. No entry, term, or definition in this RFP should be regarded as having any implication as to the validity or otherwise of any trademark. The appearance of any such proprietary name or reference in this document should not in itself be taken to imply a preference for one product over another, except if preference is explicitly stated.

## Live Test Demonstration

Prior to final selection, those Offerors whose proposals are determined to be in the competitive range may be asked to provide a Live Test Demonstration (LTD). Should UCAR elect to conduct an LTD, UCAR will notify the Offeror subsequent to proposal submission. The LTD shall be conducted by the Offeror at no cost to UCAR. UCAR will pay its own travel expenses.

Should UCAR request an LTD, it shall be conducted at the Offeror’s facility utilizing the Offeror’s system(s). The LTD shall be conducted by the Offeror, to the extent possible, on equipment and with products identical in configuration to the Offeror’s proposed NWSC-3 solution. The Offeror’s LTD system is not required to be full-scale of that proposed, but of sufficient size to verify all specified and proposed functionality.

Should an LTD be conducted, the Offeror will be expected, with UCAR’s cooperation, to develop a schedule and itemized test plan to include a detailed description of the equipment and products that are to be used and tests to be performed by the Offeror and UCAR. The LTD test plan shall be modeled, at least in part, after the Factory Trial testing described in the Attachment 4F Acceptance Criteria and Testing.

## Schedule

Table 1 provides the anticipated NWSC-3 acquisition, delivery, and acceptance schedule. All dates, particularly those occurring after the proposal due date, are estimates and are therefore subject to change.

**Table 1.** NWSC-3 Acquisition, Delivery, and Acceptance Schedule

|  |  |  |
| --- | --- | --- |
| Milestone | Day | Date |
| NWSC-3 RFP release date | Thursday | 2 April 2020 |
| Deadline to notify UCAR of prospective Offeror attendees for the NWSC Virtual Site Visit | Monday, due by 1700 MDT | 20 April 2020 |
| NWSC Virtual Site Visit for prospective Offerors | Friday, 0800-1200 MDT | 24 April 2020 |
| NWSC-3 RFP questions due to UCAR | Friday, due by 1700 MDT | 24 April 2020 |
| UCAR response to NWSC-3 RFP questions distributed to prospective Offerors | Friday | 1 May 2020 |
| Proposals due to UCAR | Friday, due by 1500 MDT | 15 May 2020 |
| Proposal clarification question period | - | Target: May-June 2020 |
| Evaluation of proposals completed | - | Target: June-July 2020 |
| Negotiations concluded | - | Target: August -September 2020 |
| Subcontract award | - | Target: January 2021 |
| Project management meetings, installation planning, pre-delivery testing | - | Target: Beginning within 45 days of Subcontract award |
| Test system(s) delivery/installation | - | Target: September 2021 |
| Initial production equipment delivery date | - | Target: October 2021 |
| Acceptance of initial equipment | - | Target: December 2021 |
| Begin full user production | - | Target: 3 January 2022 |

# PROPOSAL EVALUATION AND AWARD FACTORS

Proposals will be evaluated on a best-value basis considering the separate Business/Price Volume and Technical Volume of the Offeror’s proposal.

UCAR anticipates that one or more award(s) will be made to the highest rated, most responsive Offeror(s) whose proposal(s) conform to the requirements of this RFP and are the most advantageous to UCAR considering the award factors specified below. UCAR may, at its sole discretion, award all solicited components to a single Offeror or award one or more components of the NWSC-3 system to different Offerors. UCAR reserves the right to award any amount of the available funding, including making no award if no compelling proposal substantively addresses the RFP’s requirements.

UCAR may award a subcontract on the basis of initial proposals received, without discussions. Therefore, each proposal should contain the proposal’s best terms from a business/price and technical standpoint. UCAR expressly reserves the right to reject any proposal on the grounds of the information provided in an Offeror’s proposal, including business/price and technical organization, business experience, financial and other resources, or the solution and services proposed as compared with the requirements of this RFP.

UCAR reserves the right to waive any informalities or technicalities relative to any or all proposals if it is determined to be in the best interest of UCAR to do so.

## Award Factors

Factors to be evaluated include, but are not limited to, the following criteria:

1. Pricing of the proposed system, services, and options
2. Proposed technical solution and compliance with technical specifications (see §2.8.2 for details), including but not limited to:
	1. The functionality and aggregate capacity and capability of the proposed NWSC-3 Production HPC system as measured by the NWSC-3 benchmarks
	2. The aggregate data storage capacity and performance of the proposed NWSC-3 Production PFS
	3. The reliability and resiliency of the proposed hardware and software
	4. The Offeror’s pre-delivery system integration and testing processes
	5. File system software functionality, resiliency, and performance
	6. The quality and utility of the administrative, operations, and management facilities for the proposed system(s)
	7. The quality and integration of the proposed software suite, including workload scheduling and resource management, and the programming, debugging, and performance tuning environment
	8. The proposed hardware maintenance and software support services and the Offeror’s commitment to support the system(s) throughout their anticipated lifetime
	9. Interoperability with NCAR’s existing systems and environments, including GLADE, Campaign Store, the NCAR Archive, and LAN
	10. The Offeror’s response to any optional elements
3. LTD findings, if conducted
4. Interoperability of the HPC system and PFS
5. Business and price evaluation (see §2.8.1 for details)
6. Offeror references and past experience with contracts of a similar size and nature
7. Technical and business risk assessments
8. System delivery, installation, and acceptance testing schedule
9. Proposed project management plan

UCAR will evaluate each proposal to determine which offer provides the best value to UCAR and will recommend that the corresponding Offeror(s) be awarded a subcontract. This recommendation will be sent to NCAR and UCAR management and to the National Science Foundation for review and approval. Contingent upon these approvals, UCAR anticipates the Subcontract award to occur as indicated in §2.23.

## Award Guidance

No other evaluation or award guidance will be supplied to Offerors other than that provided in this solicitation and its technical specifications. UCAR does not intend to grant “postmortem” assessments or debriefs to Offerors subsequent to receipt of Offeror proposals or the Subcontract award.

# REFERENCES

[1] NWSC-3 RFP Website: [*https://www2.cisl.ucar.edu/nwsc-3*](https://www2.cisl.ucar.edu/nwsc-3)

[2] NCAR HPC Benchmarks Website: [*https://www2.cisl.ucar.edu/hpc\_benchmarking*](https://www2.cisl.ucar.edu/hpc_benchmarking)

[3] NCAR’s Cheyenne System: [*https://www2.cisl.ucar.edu/resources/computational-systems/cheyenne/cheyenne*](https://www2.cisl.ucar.edu/resources/computational-systems/cheyenne/cheyenne)

1. Formerly the IBM General Parallel File System (GPFS)™ [↑](#footnote-ref-1)
2. High Performance Storage System (HPSS) [↑](#footnote-ref-2)