Introduction
This is a Fixed Price Subcontract for the build, delivery, installation, and maintenance of the Sierra Supercomputer, as further described herein.

The parties to this Subcontract are Lawrence Livermore National Security, LLC (hereinafter called "LLNS") and the party identified above as the "Subcontractor."

This is a Subcontract under Prime Contract No. DE-AC52-07NA27344 between LLNS and the United States Government (hereinafter called "Government"), represented by the Department of Energy National Nuclear Security Administration (hereinafter called "DOE/NNSA"), for the management and operation of the Lawrence Livermore National Laboratory (hereinafter called "LLNL") and the performance of certain research and development work.

Agreement
The parties agree to perform their respective obligations in accordance with the terms, conditions, and provisions of the attached SCHEDULE OF ARTICLES and any documents referenced or incorporated therein, which together with this Subcontract Signature Page shall collectively constitute the entire Subcontract and shall supersede all prior negotiations, representations, or agreements, whether verbal or written.

TBD

BY: ________________________________  BY: ________________________________

TITLE: ________________________________  TITLE: Contract Administrator

DATE: ________________________________  DATE: ________________________________

Signature Page (DM-711; 10/29/13)
ARTICLE 1 – INCORPORATED DOCUMENTS

The following documents and forms are hereby incorporated as a part of this Schedule of Articles of the Subcontract and are referenced, or attached hereto.

Documents

GENERAL PROVISIONS FOR COMMERCIAL SUPPLIES AND SERVICES (GPs #600B; 06/03/11) *
STATEMENT OF WORK FOR SIERRA (Date TBD)
SECURITY AND SITE ACCESS PROVISIONS (S&SAP, 10/29/13) *

NOTE: LLNS uses a graded approach for evaluating potential risks of injury or hazards for work to be performed at LLNL by Subcontractor personnel or lower-tier subcontractor personnel. LLNS’ WAL A designation represents work with the lowest potential for risk of injury or hazards. LLNS’ WAL B (no JHA) and WAL B designations represent work with increasing potential for risks of injury or hazards. The below Indemnification and Insurance Provisions are associated with WAL B (no JHA) and WAL B. WAL A level work does not involve an Indemnification and Insurance document. All Indemnification and Insurance Provision document versions are referenced below and included in the RFP for informational purposes; however, only one Indemnification and Insurance Provision document will apply and be included in the final award Subcontract. LLNS will evaluate and determine the appropriate WAL designation prior to award based, in part, on the successful offeror’s proposed solution and machine installation approach.

NOTE: This document will apply if WAL B (no JHA):
INDEMNIFICATION AND INSURANCE PROVISIONS (I&I - WAL B No JHA; 03/01/13) *

NOTE: These documents will apply if WAL B:
INDEMNIFICATION AND INSURANCE PROVISIONS (I&I - WAL B; 03/09/11) *
ENVIRONMENT, SAFETY, AND HEALTH PROVISIONS (ES&H Provisions; 03/01/13) *
10 CFR 851 WORKER PROTECTION POSTER *
SUBCONTRACTOR AREA HAZARDS CONTROL LIST (SAHCL) (Date: TBD)

Forms

WORKPLACE SUBSTANCE ABUSE PROGRAM PLAN (WSAPP) CERTIFICATION (WITH TDPs)(TYPE 3)*

* The documents and forms marked with an asterisk, as well as links to Federal and State Tax Forms websites, are available on-line at the following website: https://supplychain.llnl.gov/ (under Supplier Information, select either General Provisions & Forms, or Special Provisions).

ARTICLE 2 – SCOPE OF WORK

A. The Subcontractor shall build, deliver, install, and maintain the TBD Supercomputer, as described in the Statement of Work (SOW).
B. The Subcontractor shall furnish all personnel, supervision, materials, supplies, equipment, tools, facilities, transportation, testing, and other incidental items and services necessary for performance of the work, except for Government Property specified herein to be furnished by LLNS. The Subcontractor shall deliver the materials, products, supplies, reports and residuals, as specified.

C. The work shall be performed by the Subcontractor at the Subcontractor's facility located at TBD, at the LLNL, and at other locations approved by LLNS.

D. LLNS may, at its option, by written unilateral modification to this Subcontract require additional items and service as described in Article 7 – FIXED PRICE OPTIONS.

**ARTICLE 3 – SAFETY-RELATED REQUIREMENTS**

A. General

The Subcontractor shall take all reasonable precautions in the performance of the work to protect the health and safety of employees and members of the public, and to minimize hazards to the surrounding environment, wildlife and property.

The Subcontractor shall comply with, and assist LLNS and the DOE/NNSA in complying with, all Environment, Safety, and Health (ES&H) requirements, training, and associated safety documents referenced, attached, or incorporated into this Subcontract, and any other safety-related documents submitted by the Subcontractor and reviewed and accepted by LLNS.

The Subcontractor shall comply with all instructions, controls, and precautions communicated to the Subcontractor by the LLNS Technical Representative, or designee, regarding any applicable area hazards associated with the Subcontractor’s work at the LLNL site.

B. Worker Safety and Health Program

All work by the Subcontractor and its lower-tier subcontractors at an LLNL worksite is subject to the Worker Safety and Health Program regulation at Title 10, Part 851 of the U.S. Code of Federal Regulations (10 CFR 851). LLNS has established an LLNL Worker Safety and Health Program to implement the requirements of 10 CFR 851 for the work at LLNL worksites. The Subcontractor shall assist LLNS and the DOE/NNSA in complying with all applicable environmental, safety, health regulations, including 10 CFR 851 and may be subject to DOE enforcement actions for violations thereof. Information on the regulation is available at the following website:

http://www.hss.energy.gov/HealthSafety/WSHP/rule851/851final.html

**NOTE:** This paragraph will apply if WAL B:

Specific, related requirements applicable to this Subcontract are reflected in the incorporated ENVIRONMENT, SAFETY, AND HEALTH PROVISIONS. In addition, the Subcontractor
shall post the incorporated 10 CFR 851 WORKER PROTECTION POSTER at its LLNL worksite so it is accessible to the workers.

C. Safety Standards and Testing

Materials, supplies, and equipment furnished or used by the Subcontractor under this Subcontract shall meet nationally recognized safety standards or be tested by the Subcontractor in a manner demonstrating they are safe for use. All electrical equipment, components, conductors, and other electrical material shall be of a type that is listed, labeled, or tested by a Nationally Recognized Testing Laboratory (NRTL) in accordance with Title 29, Part 1910, *Occupational Safety and Health Standards*, of the Code of Federal Regulations (29 CFR 1910). The Subcontractor shall obtain prior written approval from the LLNS Contract Administrator before furnishing or using any materials, supplies, or equipment that do not meet these requirements.

**NOTE:** This paragraph will apply if WAL B:

D. Safety-Related Submittals

The Subcontractor may not commence any work subject to a JHA or Site-Specific Safety Plan until the LLNS Contract Administrator and the Subcontractor execute a bilateral modification incorporating the safety submittals and authorizing release of the work. Pending issuance of the modification, the Subcontractor may proceed with all other work authorized or required by the Subcontract in preparation for performing the work. The LLNS Contract Administrator will not issue the modification until the Subcontractor has submitted, and LLNS has accepted, the submittals listed below. All submittals shall be suitable for LLNS’ review and shall be in compliance with the Subcontract, specifications and other incorporated documents. All submittals shall be provided within TBD calendar days from the date of award. Except for the insurance certificates, the modification will incorporate these submittals as part of the Subcontract, direct the Subcontractor to coordinate the scheduling, training and release of the work with the LLNS Technical Representative, and establish a completion/delivery date for the work.

Insurance Certificate(s) and Required Endorsements (See the INDEMNIFICATION AND INSURANCE PROVISIONS Incorporated Document.)

Job Hazard Analysis (JHA) (See the ENVIRONMENT, SAFETY, AND HEALTH PROVISIONS Incorporated Document, Section 4, Subcontractor ES&H Submittal Requirements.)

**NOTE:** This will apply because access authorization (WSAPP) is anticipated:

Workplace Substance Abuse Program Plan (WSAPP) Certification (With TDPs) (Type 3) (See the GENERAL PROVISIONS clause entitled *WORKPLACE SUBSTANCE ABUSE PROGRAMS AT DOE SITES.*)
NOTE: This will apply if specific training is required prior to performing work at LLNL:

E. Training

The safety training requirements listed in the SAHCL and / or below are specific to the facility in which, or the area where, the work will be done. All Subcontractor and lower-tier subcontractor personnel working on-site shall satisfactorily complete the training before commencing work on-site. The Subcontractor shall coordinate the scheduling and location for this training with the LLNS Technical Representative.

insert course number, name, course hours, etc., which are TBD.

ARTICLE 4 - INJURY AND ILLNESS REPORTING

A. The Subcontractor shall immediately notify the LLNL Emergency Dispatch Center, at 925-422-7595 (or by phone on site dial 911 or by cell phone on site dial 925-447-6880) of any work-related injury to or illness of Subcontractor or lower-tier subcontractor personnel working at any LLNL site that results in: (1) a fatality; (2) immediate in-patient hospitalization or immediate scheduled admittance; (3) personnel exposure to chemical, biological or physical hazards above limits established by OSHA or the American Conference of Governmental Industrial Hygienists, whichever is lower; or (4) three or more personnel having days away, restricted work or work transfer cases pursuant to 29 CFR 1904.7.

B. The Subcontractor shall provide a written report under this Subcontract of all new recordable fatalities, injuries, and illnesses involving either Subcontractor or lower-tier subcontractor personnel working at LLNL sites. The report shall be submitted on DOE Form F 5484.3, *Individual Accident/Incident Report*, in lieu of OSHA Form 301, *Injury and Illness Incident Report*, within seven working days of a recordable work-related fatality, injury, or illness. DOE Form F 5484.3, modified for LLNL Subcontractor Reporting, is located at the following link:


A recordable work-related injury or illness is one that results in a fatality, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or diagnosis of a significant injury or illness by a physician or other licensed health care professional (29 CFR 1904).

This requirement to report recordable work-related injuries or illnesses includes all the requirements for recordable incidents as described in 29 CFR 1904. Privacy cases should be noted so appropriate steps can be taken to protect the privacy of injured personnel (29 CFR 1904.29).

C. The report shall be submitted to the LLNL Injury and Illness Analysis Office by E-Mail at: oasis-managers@lists.llnl.gov.
D. The Subcontractor shall allow LLNS access to and review of the following:

1. To the extent allowed by law, those entries in the Subcontractor’s logs and summaries of all recordable occupational injuries and illnesses (OSHA No. 300 and 300A Forms or State Equivalent) that pertain specifically to Subcontractor employees working under this Subcontract.

2. Subcontractor’s injury or illness prevention plans and written Injury and Illness Prevention Program (IIPP) established, or which are required by law to be established.

E. These requirements are in addition to, and do not replace, the Subcontractor’s injury and illness reporting or record-keeping obligations under other applicable regulations.

ARTICLE 5 – PERIOD OF PERFORMANCE

A. Baseline

The work described in ARTICLE 2 - SCOPE OF WORK shall be completed in accordance with the Milestone Payment Schedule of this Subcontract. The completion date of this Subcontract shall be TBD.

B. Options

The period of performance shall automatically be extended by the exercising of any or all of options of this Subcontract, as described in ARTICLE 2 – SCOPE OF WORK and ARTICLE 7 – FIXED PRICE OPTIONS. Option exercise shall be at the sole discretion of LLNS. Such unilateral modification shall be subject to all provisions of this Subcontract.

ARTICLE 6 – PRICE AND PAYMENT

A. Fixed Price

The Subcontractor shall perform this Subcontract for the total fixed price of $TBD.

The fixed price stated above does not include and LLNS shall not be charged for any state sales & use tax. LLNS holds California State Resale Permit No. SR-CH 100-978248.

B. Allocated Funding Limit

Full funding is not presently available for this Subcontract. The total funding amount currently allocated for payments under this Subcontract (the “allocated funding limit”) is $TBD. The allocated funding limit shall cover performance of specific milestones of the Milestone Payment Schedule, identified as follows.

Milestones Authorized for Performance
TBD
SAMPLE

It is anticipated that LLNS will periodically increase the allocated funding limit, subject to annual appropriated funding from Congress. The allocated funding limit may only be changed by a written unilateral modification to this Subcontract issued by the LLNS Contract Administrator, or a designee.

C. Limitation of LLNS’ Liability

LLNS’ obligation for payment hereunder is expressly limited to the allocated funding limit of this Subcontract, any other provision to the contrary notwithstanding. In no event shall LLNS’ liability to the Subcontractor hereunder exceed the allocated funding limit of this Subcontract. The Subcontractor is not obligated to perform work or otherwise continue performance beyond the milestones specifically authorized for performance and identified in Paragraph B, above.

D. Work Authorization

LLNS will use a phased approach to authorizing work under this Subcontract. The Subcontractor is only authorized and obligated to perform work for specific milestones, which are identified in Paragraph B, above. It is anticipated that LLNS will periodically authorize additional milestones for performance, subject to annual appropriated funding from Congress and progress achieved by the Subcontractor. LLNS will authorize additional milestones for performance under this Subcontract by a written unilateral modification to this Subcontract issued by LLNS Contract Administrator, or a designee.

E. Milestone Payment Schedule

The Milestone Payment Schedule of this Subcontract follows.

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<thead>
<tr>
<th>Milestone No.</th>
<th>Milestone Description</th>
<th>Due Date</th>
<th>Payment Amount</th>
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F. Invoices and Milestone Payments

The Subcontractor shall submit its invoice in PDF format via email, providing a detailed statement of the milestone(s) achieved. The Subcontractor shall submit its invoice upon completion of the milestone(s) to the LLNS Contract Administrator at the following address.

ward31@llnl.gov

LLNS will verify completion of each milestone. Title to deliverable items or deliverable portions thereof shall vest in the Government immediately upon the date of the milestone payment.
Payment status inquiries should be directed to the LLNL Accounts Payable PO Payment Inquiry website at: https://vipir.llnl.gov/vipir

Invoice questions should be directed to the LLNS Contract Administrator at: ward31@llnl.gov

G. Payment Terms

The terms of payment will be 30 days after receipt of a proper invoice. Payment amounts shall be less any applicable adjustments, credits, offsets, or tax withholds. Payment on an invoice shall not constitute final acceptance of the related performance.

H. Federal and State Reporting and Withholding Requirements

LLNS is required to report and withhold income, as may be applicable, on payments for services performed for LLNS. LLNS must, therefore, request certain certifications, exemption / classification status, and other tax related information via tax forms. Depending on your exemption status, withholding may apply. Failure to submit required tax forms in a timely manner will result in significant delays in payment of invoices and/or amounts withheld unnecessarily.

1. Federal Tax Forms

Prior to issuing the initial invoice under this Subcontract, the Subcontractor shall submit Federal Tax Form W-9, Request for Taxpayer Identification Number and Certification, to the LLNS Accounts Payable Tax Group, by E-Mail at: AP-tax@llnl.gov; by mail to: P.O. Box 5001, L-432, Livermore, CA 94551; or by Fax to: (925) 422-0310. Please reference TBD on all correspondence.

2. California Tax Forms

Prior to issuing the initial invoice under this Subcontract, the Subcontractor shall submit California Tax Form 590, Withholding Exemption Certificate, to the LLNS Accounts Payable Tax Group, by E-Mail at: AP-tax@llnl.gov; by mail to: P.O. Box 5001, L-432, Livermore, CA 94551; or by Fax to: (925) 422-0310. Please reference TBD on all correspondence.

-OR-

2. California Tax Forms

Prior to issuing the initial invoice under this Subcontract, the Subcontractor shall submit California Tax Form 587, Nonresident Withholding Allocation Worksheet, to the LLNS Accounts Payable Tax Group, by E-Mail at: AP-tax@llnl.gov; by mail to: P.O. Box 5001, L-432, Livermore, CA 94551; or by Fax to: (925) 422-0310. Please reference TBD on all correspondence.

For a waiver or reduced withholding rate on payments of California source income, submit California Form 588, Nonresident Withholding Waiver Request, or California Form 589, Nonresident Reduced Withholding Request directly to the Franchise Tax
SAMPLE

Board (FTB). California Tax Form 587 must still be submitted to LLNS as directed above. Send a copy of the waiver or reduced rate authorization letter received from the FTB to the LLNS Accounts Payable Tax Group, by E-Mail at: AP-tax@llnl.gov; by mail to: P.O. Box 5001, L-432, Livermore, CA 94551; or by Fax to: (925) 422-0310.

3. Location of Services

Separately identify on each invoice (by state) the amount(s) being invoiced for work performed in each state (include hours and dollars). If work will only be performed in one state, indicate accordingly.

ARTICLE 7 – FIXED PRICE OPTIONS

A. LLNS and the Subcontractor agree to fixed price options in this Subcontract, as follow.

<table>
<thead>
<tr>
<th>Option No.</th>
<th>Milestone No.</th>
<th>Option Milestone Description</th>
<th>Due Date</th>
<th>Payment Amount</th>
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TOTAL OPTIONS FIXED PRICE $ TBD

The total fixed price of this Subcontract with options is $TBD.

B. LLNS may exercise options on or before the following dates.

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<th>Option No.</th>
<th>Option Expiration Date</th>
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ARTICLE 8 – SHIPPING AND DELIVERY SITE ACCESS INSTRUCTIONS

A. All shipments shall be sent to the following address.

Lawrence Livermore National Laboratory
For the DOE/NNSA
Subcontract No. TBD
7000 East Avenue
Livermore, CA  94550

Deliveries must be made by 3:30 p.m. Pacific Time.

B. All shipments shall be shipped F.O.B. Destination.

C. All shipments to LLNS shall be shipped by Subcontractor’s vehicles or licensed common carriers selected by the Subcontractor

D. Shipping charges shall be for the account of the Subcontractor.

E. Vehicles will be subject to search and delivery personnel will be refused access to the site if they are: (1) not U.S. citizens, (2) in possession of any prohibited items (opened/unsealed alcoholic
SAMPLE

beverages; illegal drugs; explosives; firearms or other dangerous weapons, instruments or materials; binoculars or telescopes; cameras; recording devices; pepper spray or mace, etc.), or (3) accompanied by companions or pets. Individuals entering LLNL will be required to show a valid driver’s license, identify themselves as U.S. citizens, and provide other identifying information such as a social security number.

ARTICLE 9 – COORDINATION AND ADMINISTRATION

A. The LLNS Contract Administrator for this Subcontract is Gary Ward, or designee. All matters relating to the administration, performance and non-technical interpretation of this Subcontract shall be directed to the LLNS Contract Administrator. The Subcontractor shall direct all notices and requests for approval to the LLNS Contract Administrator. The LLNS Contract Administrator will issue any notices or non-technical approvals to the Subcontractor.

B. The LLNS Technical Representative for this Subcontract is TBD, or designee. The LLNS Technical Representative will provide technical direction in connection with the work to be performed under this Subcontract. The term “technical direction” is defined to include (1) direction to the Subcontractor which assist in the interpretation of drawings, specifications, or technical portions of the work description; and (2) the review and approval of technical reports, drawings, specifications, and information to be delivered by the Subcontractor under the Subcontract, where required. The LLNS Technical Representative will issue all technical direction in writing.

C. The LLNS Technical Representative is not authorized to issue any technical direction which would (1) constitute an assignment of work outside the general scope of the work covered by this Subcontract; (2) change the description of the work to be performed or any applicable drawings, designs, and specifications; (3) change the time or place of performance; the method of shipment or packaging, or the place of inspection, delivery or acceptance; (4) increase the estimated cost for performance of the work or the time required for performance of the work; (5) change any expressed term or condition of the Subcontract; or (6) unreasonably interfere with the Subcontractor’s ability to perform and complete the work. Any such change must first be authorized by a written modification to this Subcontract issued by the LLNS Contract Administrator.

ARTICLE 10 – APPROVAL OF TECHNICAL DATA

If this Subcontract requires the Subcontractor to furnish any drawings, specifications, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance or test data, or other technical data (hereinafter called “data”) for LLNS’ approval, LLNS’ approval of the data shall not relieve the Subcontractor from responsibility for any errors or omissions in such data or from responsibility for complying with the requirements of this Subcontract, except as specified below. Any work done prior to such approval shall be at the Subcontractor’s risk.

If the data includes any variation from the Subcontract requirements, the Subcontractor shall describe such variation in writing at the time of submission of the data to LLNS, for LLNS review and approval. If LLNS approves any such variation, the variation will be incorporated into the Subcontract by a bilateral Modification to this Subcontract.
SAMPLE

Unless otherwise specified, LLNS requires a period of 10 working days, from date of receipt, to review and approve the data. If LLNS does not approve the data within the allotted time period, the parties will establish a new time period for review and approval of the data and, if necessary, the delivery schedule or completion date will be equitably adjusted.

All submittals shall be sent to the following e-mail address to the maximum extent practical:

ward31@llnl.gov

All submittals that cannot be sent electronically shall be sent to the following address:

Lawrence Livermore National Laboratory
Attention: Gary Ward, Mail Code L-557
7000 East Avenue / P.O. Box 5012
Livermore, CA 94550 / 94551

ARTICLE 11 – PROPERTY

A. The Subcontractor shall acquire, and/or LLNS will furnish to the Subcontractor, the materials, equipment, supplies, and/or tangible personal property items identified below, for use under this Subcontract.

Subcontractor Acquired Property

NONE.

LLNS Furnished Government Property

LLNS will furnish the following Government Property, F.O.B. Subcontractor’s facility for use under this Subcontract.

<table>
<thead>
<tr>
<th>QTY</th>
<th>DESCRIPTION</th>
<th>DATE OF DELIVERY TO SUBCONTACTOR'S DOCK</th>
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B. All property acquired by the Subcontractor or furnished by LLNS for use under this Subcontract shall be identified, accounted for, controlled, protected, and dispositioned in accordance with the GOVERNMENT PROPERTY clause of the GENERAL PROVISIONS. Disposition directions and authorization will be provided by the LLNS Contract Administrator or a LLNS Property Representative.

C. All property acquired by the Subcontractor or furnished by LLNS under this Subcontract shall be used only for performing this Subcontract and shall not be utilized after the completion, expiration or termination of this Subcontract, for any reason, unless otherwise provided in this Subcontract or approved by the LLNS Contract Administrator or a LLNS Property Representative.
ARTICLE 12 – REPORTS

A. Type of Reports

The Subcontractor shall prepare and submit the following reports to LLNS:

1. Monthly Progress Reports

   Monthly progress reports shall be submitted by the fifth work day of each month. The progress reports may be informal letter summaries in a format approved by LLNS’ representatives. These reports shall contain a description of work performed during the report period and the work planned for the succeeding period.

2. Final Report

   A final report shall be submitted upon completion of the work and contain a comprehensive summary of all work results and conclusions. The form and content of the final report shall be acceptable to the LLNS Technical Representative. If so requested, a draft copy of the report shall be provided to the LLNS Technical Representative for review prior to final submittal.

3. Other Reports

   The Subcontractor shall submit other reports, as described in the STATEMENT OF WORK

B. Distribution of Reports

The Subcontractor shall submit reports electronically by E-Mail to the following personnel.

<table>
<thead>
<tr>
<th>Name</th>
<th>E-Mail Address</th>
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<tbody>
<tr>
<td>Gary Ward</td>
<td><a href="mailto:ward31@llnl.gov">ward31@llnl.gov</a></td>
</tr>
<tr>
<td>TBD</td>
<td><a href="mailto:TBD@llnl.gov">TBD@llnl.gov</a></td>
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<tr>
<td>TBD</td>
<td><a href="mailto:TBD@llnl.gov">TBD@llnl.gov</a></td>
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<td>TBD</td>
<td><a href="mailto:TBD@llnl.gov">TBD@llnl.gov</a></td>
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With the exception of an authorized representative of DOE/NNSA and those indicated above, the Subcontractor shall not distribute reports of work under this Subcontract to any individual or organization without prior written approval of the LLNS Contract Administrator.

C. Interim Reports

It is understood there will be other information exchanged between the parties from time to time. Such data may be exchanged directly between the parties concerned; formal reporting and distribution is not required in these cases.
ARTICLE 13 – KEY PERSONNEL

A. The personnel specified below are deemed key personnel. The Subcontractor shall assign such individual(s) to this Subcontract to perform the duties proposed. All key personnel shall perform their duties in a professional manner consistent with the requirements of the position. No removal, replacement, or diversion shall be made by the Subcontractor without the written consent of the LLNS Contract Administrator.

B. If at any time after award the Subcontractor becomes aware that any key personnel is/are unable or unwilling to perform as the key personnel, the Subcontractor shall immediately notify the LLNS Contract Administrator in writing.

C. If any key personnel is/are to be substituted or replaced as provided above, the Subcontractor shall propose candidate(s) who meet the same or substantially similar qualifications (i.e., education, experience and other professional requirements) as the key personnel being substituted or replaced. The Subcontractor shall submit a current copy of the résumé, or similar document, demonstrating that the candidate(s) is/are qualified for the position(s) being filled to the LLNS Contract Administrator and provide any other information about such proposed candidate(s) sufficient for LLNS to determine the proposed candidate(s) can satisfactorily perform the duties of the key personnel.

D. The following individuals are assigned as key personnel under this Subcontract:

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<tr>
<th>NAME</th>
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ARTICLE 14 – ACCESS TO LLNL COMPUTER RESOURCES

A. The performance of this Subcontract may require Subcontractor personnel (including lower-tier subcontractor personnel) to use or connect with LLNL computer resources (i.e., computers or computer networks). Any such access and use shall comply with Department of Energy Acquisition Regulation (DEAR) 952.204-77, Computer Security (AUG 2006) which is hereby incorporated by reference into this Subcontract; and shall be in accordance with and subject to LLNL Cyber Security Program (LLNL CSP) requirements, including the following:

1. Approval to access specific LLNL computer resources shall be obtained from the appropriate LLNL Information Systems Security Officer (ISSO), through the LLNS Technical Representative.

2. Access to LLNL computer resources by Subcontractor personnel is only permitted as required to perform the work authorized under this Subcontract. Classified computer resources or information shall not be accessed or attempted to be accessed without
specific written authorization from the LLNL CSP, through the LLNS Technical Representative. Personal and non-work-related use of LLNL computer resources by Subcontractor personnel is prohibited.

3. Only Subcontractor personnel who are U.S. citizens may access or use LLNL computer resources, unless specific written authorization is granted for each non-U.S. citizen by the LLNL CSP, through the LLNS Technical Representative.

4. Only the approved Virtual Private Network (VPN), Open Terminal Server (OTS) modem pool, or High Performance Computing (HPC) Enclave access methods shall be used to access unclassified LLNL resources. All unclassified computer systems with modems other than facsimile machines must be configured with auto-answer turned off. Modems are prohibited on classified systems.

5. All software used by Subcontractor personnel on LLNL computer resources must be appropriately acquired and used according to the applicable licensing agreements.

6. All information or data furnished by LLNS or obtained from or developed on a LLNL computer resource by Subcontractor personnel shall be treated as confidential and protected by the Subcontractor to prevent disclosure to any persons other than those authorized by LLNS.

7. Computer passwords used by Subcontractor personnel for LLNL computer resources shall comply with the applicable rules and be protected to prevent disclosure to other persons. If a computer password is disclosed, or disclosure is suspected, the Subcontractor shall immediately notify the LLNS Technical Representative and arrange for replacement of the password.

8. Non-LLNL electronic devices and computers are prohibited from connecting to LLNL networks or equipment except for the Guest network without the written approval of the LLNS Technical Representative and the LLNL CSP. Restrictions apply for the use of non-LLNL electronic devices and computers in Limited Areas buildings.

B. These requirements shall be applicable whether such access is at the LLNL, at the Subcontractor's facility, or elsewhere; and shall be applicable to lower-tier subcontractors and their personnel whose work requires access to LLNL computer resources. The Subcontractor shall report any suspected or actual computer security incident as soon as possible to the LLNS Technical Representative and the Security Operations Center Hotline at either 925-422-4655 (M-F from 8:00AM – 5:00PM), 925-456-4759 (after business hours), or send email to imt@llnl.gov.

C. LLNS may monitor the use of LLNL computer resources by network operating software, reviewing the contents of all LLNL computer resources and any computers used to access LLNL computer resources, and other appropriate means.

D. If the Subcontractor does not comply with the provisions of this article, LLNS may withdraw the Subcontractor's access to LLNL computer resources. Misuse of LLNL computer resources may
be a violation of law and could result in appropriate action, including termination for default and/or criminal prosecution.

ARTICLE 15 - DEBARMENT ELIGIBILITY CERTIFICATION

By acceptance of this Subcontract, the Subcontractor certifies, to the best of its knowledge and belief, it and its principals are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts (including subcontracts) by any agency of the Federal Government.

ARTICLE 16 – SIERRA GO/NO-GO DECISION

A. GO/NO-GO Decision

1. The Sierra Supercomputer is described in the Sierra SOW.

2. Upon completion of Sierra SOW Section TBD “Sierra Prototype Review” of the Sierra SOW, the Subcontractor and LLNS shall consider three major decision points.
   a. The results of the Subcontractor’s work on research and development Subcontract TBD for Sierra will form the basis for a GO/NO-GO decision to build Sierra.
   b. A GO decision will require the Subcontractor and LLNS to revise the Sierra SOW by written bilateral modification of this Subcontract. See Paragraphs B, C, and D, below and Section X of the Sierra SOW.
   c. A commitment by LLNS and the Subcontractor to acquire parts for Sierra after review and approval by the LLNS and DOE/NNSA.

If all three decisions are affirmative, LLNS will amend this Subcontract to reflect the terms and conditions agreed upon in connection with the decision to build Sierra.

3. LLNS may authorize the Subcontractor, in writing, to acquire the parts necessary to build Sierra, provided the GO/NO-GO decision above is GO and after the Subcontractor has notified LLNS it is ready to acquire the Sierra parts. Sierra parts include, but are not limited to, individual Sierra processor and interconnect ASICs, memory chips or DIMMs, PCBs, optical component cables, empty racks, cooling equipment, power supplies, fans, and fully or partially integrated built racks of parts. The express written approval of the LLNS Contract Administrator is required before the Subcontractor is permitted to acquire the Sierra parts.

4. LLNS and the Subcontractor agree to share the memory price risk for the Sierra system. In exchange for this memory price risk sharing, the Subcontractor agrees to disclose actual memory cost information (i.e., the sum of the actual cost the Subcontractor will pay its supplier for memory and the Subcontractor’s overhead recovery charges) to LLNS prior to purchasing Sierra system memory parts. The fixed price of this Subcontract is based on a total of TBD TiberBytes (TiB) of DDR4 SDRAM for Sierra at the total estimated price of $TBD, or $TBD per GiberByte (GiB). Similarly, the fixed price of this
SAMPLE

Subcontract is based on a total of TBD TbiBytes (TiB) of NVRAM for Sierra at the total estimated price of $TBD, or $TBD per GibiByte (GiB). If the actual memory price is more than 5% above or below this estimate when the SDRAM and NVRAM need to be purchased to build Sierra, the parties agree to negotiate a mutually acceptable memory price estimate and either change the total fixed price of this Subcontract accordingly or change the Sierra system deliverables accordingly. If LLNS obtains substantive information indicating the Subcontractor’s memory pricing may not represent a fair and reasonable market price, LLNS will share this information with the Subcontractor. If LLNS and the Subcontractor cannot agree on an equitable change to the Subcontract, LLNS may elect, by written notice to the Subcontractor within 14 days, to purchase the SDRAM and/or NVRAM itself and furnish it to the Subcontractor.

B. Sierra SOW Target Requirements

LLNS and the Subcontractor recognize that the production and performance of Sierra will be tied directly to the results of the Subcontractor’s work on research and development Subcontract TBD. Since research results are not predictable, and since the actual performance of future products cannot be defined in the present, the Sierra SOW defines the requirements for the Subcontractor’s performance in terms of targets. These targets are not the usual mandatory (minimum or maximum) requirements that are typically used in an SOW. Targets are those performance achievements that LLNS and the Subcontractor reasonably believe the Subcontractor could approach, achieve, or exceed, depending upon the results of the research.

C. Sierra SOW Performance Assessment

LLNS and the Subcontractor agree that the Subcontractor’s performance under the Sierra SOW will be measured by an aggregate assessment of the level of achievement of the system as a whole rather than an assessment of performance of each target requirement individually. LLNS will assess the Subcontractor’s performance on the system as a whole after the Subcontractor completes work on the critical subsystems and provides performance results to LLNS. At its discretion, LLNS may use a numeric or subjective assessment method depending upon the nature of the target requirement being assessed. Credits and debits will be reasonably assigned by LLNS in proportion to the level of achievement relative to the target requirement. LLNS will give assessment credits if the performance results exceed the target requirement, will give a neutral assessment if the target is merely met, or will give assessment debits if the performance results do not meet the target. LLNS will then aggregate the individual assessments into an overall assessment, balancing the credits and debits in a reasonable manner. These critical subsystem and overall system assessments, along with the individual assessments, will be promptly and continually shared with the Subcontractor.

Since LLNS has agreed to use a Sierra SOW with target requirements rather than traditional performance requirements, LLNS is accepting some of the risk normally assumed by a subcontractor under a fixed price subcontract. As consideration for accepting this increased level of risk, the Subcontractor agrees that LLNS shall have the sole discretion to assess the Subcontractor’s performance relative to each target requirement, the critical subsystems identified in the Sierra SOW, and the system as a whole. This does not, however, infringe upon the Subcontractor’s rights under the clause in the GENERAL PROVISIONS entitled DISPUTES.
D. Sierra SOW Conversion from Target Requirements to Traditional Requirements

LLNS and the Subcontractor agree that certain target requirements in the Sierra SOW will be converted to traditional mandatory requirements after the results of research and development Subcontract TBD. These conversions shall be defined by the mutual agreement of LLNS and the Subcontractor and implemented by a written modification of this Subcontract.

E. Source Code

The Subcontractor shall deliver source code for software delivered with Sierra, which may include the ability of LLNS to build software binaries that reproduce Subcontractor delivered binaries that can be installed on Sierra, as mutually agreed upon by the parties. The source code shall allow LLNS to assist the Subcontractor in performing software maintenance of the Sierra System.

F. Obligations of the Parties

LLNS and the Subcontractor agree that this Subcontract involves the development of cutting-edge technology under aggressive schedules. LLNS and the Subcontractor agree (i) that the Subcontractor shall use reasonable efforts to deliver in accordance with the requirements and schedules set forth in this Subcontract, and (ii) to reasonably consider limitations that may occur in meeting obligations under this Subcontract. If the Subcontractor is unable to meet its performance obligations, then LLNS and the Subcontractor hereby agree to negotiate the Sierra SOW and the Subcontract price, if necessary, to reflect changes to the Subcontractor’s performance obligations. LLNS and the Subcontractor agree to use this process to address performance issues before resorting to any rights or remedies available by way of the DISPUTES or the TERMINATION clauses of the GENERAL PROVISIONS.

G. Sierra Unwind

1. The technical checkpoints identified within Sierra SOW Paragraph TBD shall be used to review technical progress and schedules, which may be revised. Within 15 days after completion of a technical checkpoint, either party may decide to cancel its participation in the Sierra work by providing written notice of its decision to the other party. If no such written notice is received by either party, then the Subcontractor’s obligation to proceed hereunder shall continue. Cancellation under this Paragraph shall not constitute a termination for default or convenience but, rather, a voluntary cancellation of the obligations of the Sierra work. In the event either party elects to invoke the cancellation right prescribed by this Paragraph, LLNS shall have no obligation to pay for milestones it has not accepted, and the Subcontractor shall have no obligation either to perform work prescribed by any remaining milestones and their associated Sierra SOW sections, or to make any payments to LLNS.

2. If exercised, the foregoing cancellation right shall constitute the parties’ exclusive remedy and shall be subject to the following limitation. In the event of cancellation by LLNS after the Subcontractor has acquired the Sierra parts, LLNS shall pay the
SAMPLE

Subcontractor for the Sierra parts and the Subcontractor shall provide LLNS with reasonable documentation supporting the cost of the Sierra parts and shall also deliver to LLNS any Sierra parts not already delivered to LLNS under the Sierra SOW. LLNS and the Subcontractor agree that LLNS’ obligation to pay for the Sierra parts hereunder shall not exceed $TBD. In the event of cancellation by the Subcontractor after the Subcontractor has acquired the Sierra parts, LLNS’ sole and exclusive obligation for payment hereunder is expressly limited to milestones it has accepted. In this event, LLNS and the Subcontractor shall mutually agree upon return of any deliverables not accepted by LLNS or delivery of Sierra parts to LLNS in proportion to the payments made by LLNS for completed Sierra milestones.

ARTICLE 17 – PROHIBITION ON LOBBYING

A. Definition

For purposes of this Subcontract, lobbying activities include any activity designed to influence the enactment of legislation, appropriations, regulation, administrative action, or Executive order proposed or pending before the Congress or any State government, State legislature or local legislature or legislative body. Excepted from this definition is providing technical and factual information on a topic directly related to the performance of this Subcontract through hearing testimony, statements or letters to the Congress or a state legislature, or cognizant staff member thereof, in response to a documented request.

B. Unallowable Lobbying Costs

It is LLNS policy that LLNS employees, Subcontractors, Consultants or paid representatives shall not use Government appropriated funds to lobby or pay any person to lobby on LLNS’ behalf. Therefore, any costs incurred by Subcontractor to perform lobbying activities are not allowable under this Subcontract and the Subcontractor shall ensure no lobbying costs are included in Subcontractor’s invoices. The Subcontractor shall reimburse LLNS if any payments made by LLNS to Subcontractor are subsequently determined by DOE/NNSA to involve lobbying activities.

C. Notification

If there is any conflict between the statement of work and this policy, the Subcontractor shall immediately notify, in writing, the LLNS Contract Administrator and provide a specific explanation together with any supporting information and documentation.

ARTICLE 18 – GENERAL PROVISIONS

A. The clauses listed in the incorporated GENERAL PROVISIONS shall be applicable to this Subcontract based on the value of the Subcontract, the status of the Subcontractor, and the nature and location of the work as indicated in the GENERAL PROVISIONS. As used therein, the term “Seller” shall mean “Subcontractor,” and the terms “Purchase Order” and “PO” shall mean “Subcontract.”
SAMPLE

B. This Subcontract is not for the conduct of research, development, or demonstration (RD&D) work, or design work involving non-standard types of construction. Accordingly, the clauses listed in the GENERAL PROVISIONS related to such work shall not apply.

C. This Subcontract may involve access to classified information and/or special nuclear material, or unescorted access to “Limited” or “Exclusion” security areas. Accordingly, the clauses listed in the GENERAL PROVISIONS related to such work shall apply.

(END OF SCHEDULE OF ARTICLES)