



Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



## Industry Day Notification in Support of the Department of Energy/National Nuclear Security Administration Need for Enriched Uranium

### **PURPOSE:**

The United States (U.S.) Department of Energy, National Nuclear Security Administration (DOE/NNSA or the Department) will host an Industry Day to discuss new or innovative mutually beneficial contracting arrangements and strategies to provide an unobligated and unencumbered uranium enrichment capability. The nearest term defense mission requirement for DOE/NNSA, and thus the focus of this Industry Day, will be on developing a capability to provide unobligated and unencumbered low enriched uranium (LEU) to fuel tritium production reactors. However, there is also a need for high-assay LEU (HA-LEU) to fuel research reactors, and test reactors, most of which do not require unobligated or unencumbered uranium.

This notification is consistent with the Request for Information (RFI) (DE-SOL-0008552) that was released on January 18, 2017. DOE/NNSA is hosting this Industry Day in order to gather input on a wide range of options to ensure an enduring supply of enriched uranium to meet long-term national security, non-proliferation, and science requirements. DOE/NNSA is also looking for input on several contracting mechanisms being considered for this project. This information will be used by the Government to assist in planning future technical requirements and developing acquisition alternatives.

*For additional information on prior activities, please refer to Federal Business Opportunities ([www.fbo.gov](http://www.fbo.gov)) for the Supply of Enriched Uranium RFI (DE-SOL-0008552) posted January 18, 2017 and the Amendment posted March 16, 2017.*

### **REGISTRATION AND LOGISTICS:**

#### **Target Audience**

The Industry Day content is focused toward potential prime contractors, joint venture partnerships, and subcontractors that are capable of and interested in performing a substantial percentage of the overall scope of work.

This event **will not** be open to the media.

#### **Date and Location**

The Industry Day will be held at the offices of MPR Associates, located at 320 King St, Alexandria, VA on November 1-3, 2017. The schedule will consist of a public session for all registered attendees and private sessions, which will be scheduled for vendors once registered. For travel planning, the public session on Day 1 will start no earlier than 8:00 AM Eastern Time (ET) and conclude by 5:00 PM ET. Registrants desiring a private session will be assigned a time slot commencing the morning of Day 2 and will conclude no later than 5:00 PM on Day 3.



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### **Public Session Agenda**

A detailed agenda will be provided to registered attendees. Meeting topics are expected to include:

- Opening Remarks
- Overview of DOE/NNSA's Enriched Uranium Needs
- LEU Overview (i.e., Domestic Uranium Enrichment (DUE) Program Overview)
- High Assay LEU Overview, including UF<sub>6</sub> to metal conversion
- Industry Support for DUE Program
- Break (and collect written questions from audience)
- Q&A Session based on Written Questions

If there are particular questions industry participants would like to have addressed during the public session of the Industry Day, please send those questions via email to [HPSAcquisitions@nnsa.doe.gov](mailto:HPSAcquisitions@nnsa.doe.gov) with the subject line "DUE Industry Day Question." Questions should be submitted by October 20, 2017. The meeting facilitators will consider these questions in developing the meeting agenda.

### **Private Session Agenda**

Private session discussions will focus on a vendor's ability to satisfy the Government's enriched uranium needs, including LEU for tritium production reactors and HA-LEU for research reactors, and test reactors. Options for allowing industry to leverage the capability in support of advanced power reactor development, demonstration, and eventual deployment will also be of interest. The following questions will be discussed with the registered respondent in the private sessions:

1. How is your company interested in supporting the Department's need for unobligated and unencumbered LEU for tritium production in the future?
2. How is your company interested in supporting the Department's need for HA-LEU for research reactors and test reactors?
3. Is there a scenario in which your company could provide HA LEU to industry in support of the development, demonstration, and deployment of advanced power reactors? Would this scenario also establish a sustainable supply to support research and test reactors, whether or not a commercial market for advanced power reactors emerges?
4. How interdependent are your company's interests expressed in the answers to questions 1 – 3? Could your company support meeting these needs if acquired separately or only as a single project?
5. Is your company likely to bid as a prime contractor in support of the LEU mission?
6. Which aspects of the Department's needs for LEU and HA-LEU is your company least capable of fulfilling?
7. Would your company be willing to partner with another company in support of the program to provide LEU or HA-LEU? What potential problems does this create?
8. Would your company be willing to partner with another company in support of the program to provide a conversion facility? What potential problems does this create?
9. Are there unique private/public partnerships or other business arrangements that your company would like to ensure can be considered in any acquisition in support of the Department's needs?
10. How ready is your capability/technology for commercial use? What is still required to make it ready?
11. What timeline do you envision for having your technology fully available?



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### Registration Process

Due to limited capacity of the venue, attendance is limited to 100 people. Registration is required for admittance by sending an email to the following address: [HPSAcquisitions@nnsa.doe.gov](mailto:HPSAcquisitions@nnsa.doe.gov) with the subject line "Enriched Uranium Industry Day Registration." Registration to attend must be received by October 25, 2017. Registration priority will be given to those in the order of registration emails received. The content of the email shall include:

*Attendee name*  
*Company*  
*Cell phone*  
*Email address*  
*Request for private session, if desired*

**Attendance is limited to three (3) attendees per company.** For teams that have already been formed, we request that you send no more than three (3) representatives from the entire team. Substitutions or changes will be handled on a case-by-case basis.

### **BACKGROUND AND OVERVIEW:**

The U.S. DOE/NNSA is responsible for a number of national security and nonproliferation missions that require a reliable supply of enriched uranium in varying assays and forms. These mission requirements include LEU reactor fuel for tritium production; high-assay LEU for research reactors and test reactors; and HEU reactor fuel for naval reactors. The need for HEU for naval reactors is the least pressing need at this time, but the capability/desire to expand an LEU facility to ultimately produce HEU for naval reactors is of interest to the Government.

Longstanding U.S. policy requires enriched uranium for defense missions like tritium production to be free from foreign peaceful use restrictions ("unobligated") and free from domestic peaceful use restrictions ("unencumbered"). This means that the enriched uranium must be of U.S. origin and processed by U.S. technology. Currently, the U.S. is without an operating uranium enrichment facility that meets the unobligated and unencumbered requirements. The Department has taken steps to down-blend HEU into LEU to support the tritium mission until approximately 2038-2041.

The Department seeks a domestic uranium enrichment capacity. Current estimated requirements are for:

1. LEU reactor fuel for tritium production by approximately 2038,
2. High-assay LEU for research reactors and test reactors by approximately 2035 (earlier if enriched uranium is provided to support design or testing for advanced power reactors); and
3. HEU reactor fuel for naval reactors by approximately 2060.

In the near term, the Department has decided to explore the mission gap created by the most immediate needs: LEU and HA-LEU. These two needs may be met by one facility or two separate facilities. Additionally, a conversion facility is needed to convert  $UF_6$  to metal to meet the Department's requirements for HA-LEU in support of research reactors and future advanced commercial reactors. The Department is also interested in facilitating industry access to any new domestic uranium enrichment capability and/or its supporting technologies to support emerging commercial needs for HA-LEU for advanced power reactors.

The Department seeks information on interested entities, on new or innovative mutually beneficial contracting arrangements, and on strategies to provide a uranium enrichment capability using unobligated and unencumbered technology. Potential parties could include, but need not be limited to, commercial entities such as nuclear fuel cycle suppliers, research organizations, or consortia consisting of several interested firms or organizations. Potential contracting arrangements could include, but need not be limited to,



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alternative government/commercial sector arrangements regarding cost sharing, infrastructure build-out, manufacturing and product delivery, use of obligation exchanges/swaps, and/or leasing of infrastructure or equipment.

The Department is interested in entities' ability to accept or meet the following potential conditions and restrictions should the Department, in its sole discretion, elect to issue a future solicitation:

- Processing uranium in any form must be done in the U.S. and in accordance with all applicable authorizations and license requirements.
- All facilities and work must meet DOE and/or U.S. Nuclear Regulatory Commission (NRC) security and safety requirements.
- The enrichment technology, equipment, and materials for LEU and HEU production must be unobligated and unencumbered, or otherwise useable for national defense purposes.
- An LEU enrichment facility must have a means to produce up to 5% enrichment by 2038.
- A HA-LEU enrichment facility must have a means to produce up to 19.75% enrichment.

**IMPORTANT NOTICE TO PROSPECTIVE RESPONDENTS:**

This Industry Day is subject Federal Acquisition Regulation (FAR) 15.201 and is held solely for information/planning purposes. No solicitation exists at this time and no decision has been made to initiate a future acquisition for supplies or services relating to the subject matter of this Industry Day notification. Any information associated with this event does not constitute a solicitation for proposals, a commitment to issue a solicitation for proposals, or the authority to enter into negotiations to award a contract. The information associated with this event will not be considered as an obligation by the government to acquire any products or services. The government does not intend to award a contract on the basis of this information. There is no entitlement to payment of direct or indirect costs or charges by the government as a result of a contractor participation or the government's use of such information. The government reserves the right to reject, in whole or in part, any contractor's input submitted. The government recognizes that proprietary information and data may be part of this effort and, if so included, such data should be clearly marked as "Proprietary Information" in accordance with FAR 3.104-1(3) and (4) by the entity at the time it is provided.