

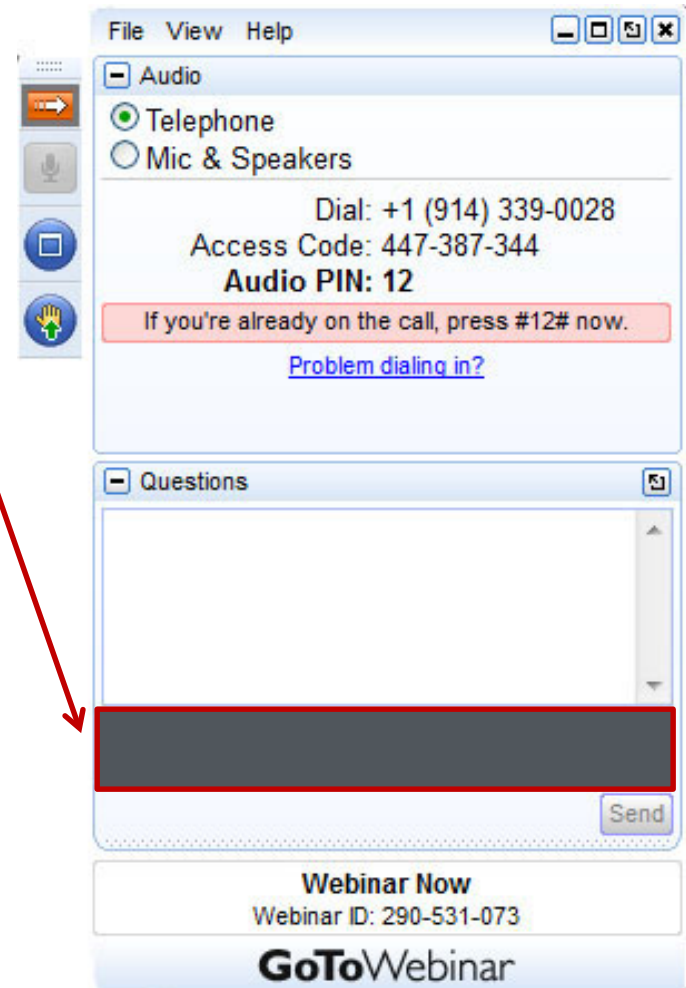


FY 2019 Consolidated Innovative Nuclear Research

Community Outreach
November 13, 2018

How to Ask Questions During This Webinar

- ❑ Submit questions using the GoToWebinar software by typing in the Webinar ID field.
- ❑ Questions that do not get answered during the allotted time will be answered and posted on www.NEUP.gov.
- ❑ Specific questions on individual eligibility or workscope detail should be addressed offline.



FY18 Important Due Dates

- ✓ FOA release: August 13, 2018
- ✓ NSUF LOI's: Aug 30, 2018
- ✓ R&D/NSUF pre-applications: Sept 20, 2018 (IRPs excluded)
- ❑ CINR Infrastructure: Nov. 15, 2018
- ❑ NSUF preliminary SOW: Nov. 29, 2018
- ❑ Full application invitations: Dec 2018
- ❑ NSUF final SOW: Jan 24, 2019
- ❑ Full IRP applications: Feb 12, 2019
- ❑ Full R&D applications: Feb 12, 2019



DOE-NE Funding for Universities

- ❑ Up to 20% of the NE R&D budget is currently used to support university-based, peer reviewed activities including R&D and Infrastructure investments
- ❑ Universities are also eligible for NEET funding through the CINR
- ❑ Other NE university investments outside NEUP
 - NE funds fuel management support for university-based research reactors
 - National laboratories use NE R&D funds to support specific R&D or support efforts at universities

FY 2019 CINR FOA Objectives and Priorities

- ❑ DOE NE mission is to advance U.S. nuclear power in order to meet the nation's energy needs by:
 - 1) Enhancing the long-term viability and competitiveness of the existing U.S. reactor fleet;
 - 2) Developing an advanced reactor pipeline, and,
 - 3) Implementing and maintaining the national strategic fuel cycle and supply chain infrastructure.

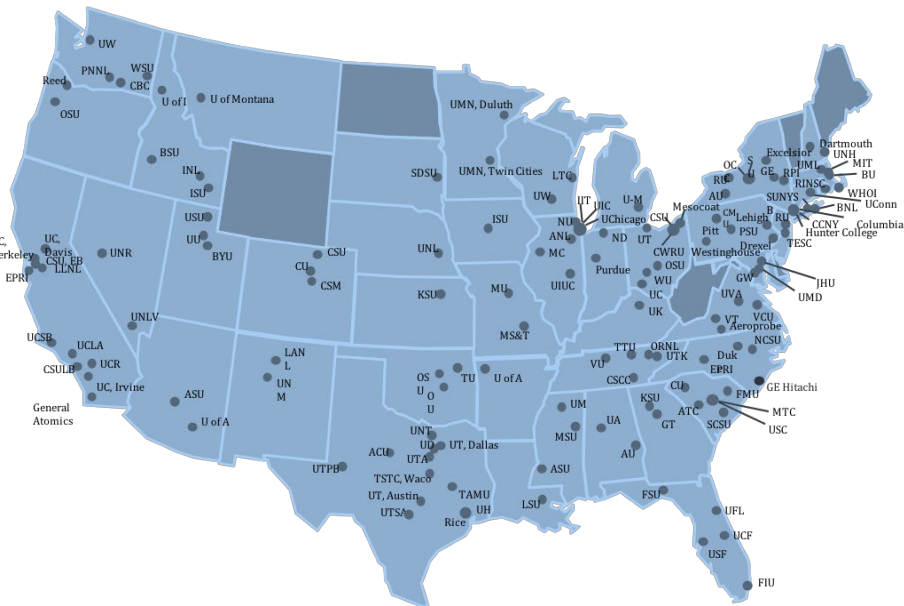
- ❑ All applications submitted under this FOA will need to demonstrate a strong tie to at least one of these three priorities.

- ❑ NE conducts crosscutting nuclear energy research and development (R&D) and associated infrastructure support activities to develop innovative technologies that offer the promise of dramatically improved performance for its mission needs as stated above, while maximizing the impact of DOE resources.

CINR Award Map and FY 2018 Summary

NEUP and IUP have a well established competitive process for awarding R&D, infrastructure and scholarships/ fellowships.

- FY 2017 IUP awards: 58 scholarships and 31 fellowships, totaling \$31M announced on May 18, 2017
- FY 2018 NEUP awards, 89 projects, totaling \$58M* for IRP, R&D and Infrastructure projects (*this includes 8 NEET projects totaling \$6.4M)



The NE R&D Programs are the cognizant technical managers of these competitive R&D awards and therefore play an integral role in the success of each project.

Through CINR and IUP, \$637.5 million has been awarded to 123 schools, 7 national laboratories, and 15 industry/utilities in 42 States and the District of Columbia.

Reporting Policies and Procedures

Important Contacts

- ❑ JoAnne Hanners – Department of Energy, Contracting Officer
 - Overview of Processing the Award
 - Reporting Requirements
 - E-mail: hannerj@id.doe.gov

- ❑ Nick Case – Idaho National Laboratory, INR-IO
 - Reporting
 - E-Mail: Nick.Case@inl.gov, (208) 526-7804

- ❑ Allegheny Science & Technology,
 - NEUP project work packages, David Yarwood
 - dyarwood@alleghenyst.com or neupawards@alleghenyst.com, 301-658-7996
 - NEET / NSUF project work packages, Dave Bates
 - dbates@alleghenyst.com or ctdawards@alleghenyst.com, (240) 821-6546

How It All Starts.....

What happens after Selection notification?

- ❑ DOE Contract Management Division receive the selected applications and begins processing awards.
- ❑ How can the PI help with this process?
 - In your application, provide
 - Complete budget justifications
 - Quotes for equipment over \$5k
 - Detailed travel breakdown
- ❑ DOE will contact the selectee's business office and copy the PI on requests.
 - Provide requested documents as quickly as possible
- ❑ Once awarded, the listed Business Point Of Contact receives a system generated email that the award is available via FedConnect
- ❑ There are several attachments provided with the award that Business Office should forward to the PI

Federal Reporting Requirements Checklist

- Quarterly, yearly, and final reporting are essential to continued support of university NE R&D research.
- The quarterly reporting requirements are enforced upon the university, as well as the PI.
- If quarterly reporting is delinquent, future invoicing and awards for any government funding could be delayed to the university.....
- It is the awardee's responsibility to ensure timely & complete reports are submitted by the subawardees/subrecipients
- Refer to DOE F 4600.2, Federal Assistance Reporting Checklist and Instructions

**U.S. Department of Energy
FEDERAL ASSISTANCE REPORTING CHECKLIST
AND INSTRUCTIONS**

1. Identification Number: DE-NE0008424		2. Program/Project Title: 'Advanced Modeling and Simulation of	
3.			
4. Reporting Requirements:		Frequency	Addresses
A. MANAGEMENT REPORTING			
<input checked="" type="checkbox"/> Research Performance Progress Report (RPPR) (RD&D Projects)		Q F	https://www.fedconnect.net/fedconnect/default.aspx A B C D
<input type="checkbox"/> Progress Report (Non-RD&D Projects)			
<input checked="" type="checkbox"/> Special Status Report		O	A B C
B. SCIENTIFIC/TECHNICAL REPORTING			
(Dissemination of results is required for RD&D projects. Reports & other S&T publications/products must be submitted using the appropriate DOE Announcement Notice (AN) located at: https://www.osti.gov/elink)			
<input checked="" type="checkbox"/> Final Scientific/Technical Report	<u>Product</u> DOE AN 241.3	F	http://www.osti.gov/elink-2413 http://www.osti.gov/elink-2413 http://www.osti.gov/elink-2413 http://www.osti.gov/estsc/241-4.jsp http://www.osti.gov/elink-2413
<input type="checkbox"/> Journal Article-Accepted Manuscript	<u>Announcement Notice (AN)</u> DOE AN 241.3		
<input type="checkbox"/> Scientific/Technical Conference Paper/Presentation or Proceedings	DOE AN 241.3		
<input type="checkbox"/> Scientific/Technical Software & Manual	DOE AN 241.4		
<input type="checkbox"/> Other STI (e.g., dissertation/thesis, see instructions))	DOE AN 241.3		
C. FINANCIAL REPORTING			
<input checked="" type="checkbox"/> SF-425, Federal Financial Report		Q F	https://www.fedconnect.net/fedconnect/default.aspx A B C D
D. CLOSEOUT REPORTING			
<input checked="" type="checkbox"/> Patent Certification		F	https://www.fedconnect.net/fedconnect/default.aspx A B C
<input checked="" type="checkbox"/> SF-428 & 428B Final Property Report		F	
<input type="checkbox"/> Other (see special instructions)			
E. OTHER REPORTING			
<input checked="" type="checkbox"/> Annual Indirect Cost Proposal		O	https://www.fedconnect.net/fedconnect/default.aspx (or Cognizant Federal Agency) & send to CFO at : DOE-Audit-Submission@hq.doe.gov A B C
<input type="checkbox"/> Audit of For-Profit Recipients			
<input type="checkbox"/> SF-428 Tangible Personal Property Report Forms Family			
<input checked="" type="checkbox"/> Other (see special instructions)			
FREQUENCY CODES AND DUE DATES: A - Within 5 calendar days after Awards or as specified F - Final; within 90 calendar days after expiration or termination of award. Y - Yearly; within 90 days after the end of the reporting period. Y180 - Yearly; within 180 days after the end of the recipient's fiscal year. Q - Quarterly; within 30 days after end of the reporting period. S - Semiannually; within 30 days after end of reporting period. O - Other; See special instructions for further details.			
5. Special Instructions: [Insert special instructions to recipient for unique reporting requirements or reporting requirements with frequency of O]			

Work Package Forms

- ❑ **Purpose:** The work package form communicates your plan to complete the awarded scope to the DOE.
- ❑ **General Rules for Milestones:**
 - Milestones require a deliverable to demonstrate completion
 - Major milestones (M2): Technical reports reviewed by Technical POC and National Technical Director, approved by Federal Manager
 - Minor milestones (M3): Informal deliverables approved by Technical POC
 - Milestones per project is usually 9 – 12; reviewers may request more / fewer
 - Deliverable description: What you intend to submit at completion
- ❑ **Budget by Milestones:**
 - Total budget must equal total funding, including National Laboratory collaborators
 - No budgeting costs past project completion date (even for final report)
 - Costs generally start slowly and ramp up
 - Often difficult to recruit students at the start of the project
 - Actual cost reporting lags behind planned spending by several weeks
 - Prepare your spend plan accordingly

Quarterly Reporting

❑ Basic requirements:

- Complete quarterly Research Performance Progress Reports (RPPR) template and Quad Chart template
- Submit to INRREPORTS@inl.gov and psdrept@id.doe.gov; use subject line from cover sheet
- Include signed cover sheet of the RPPR
- Submit deliverables for completed milestones

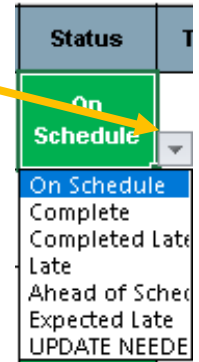
❑ Research Progress Performance Report:

- Complete all fields in all tabs (use “None” or “Not applicable” as necessary)
- Accomplishments:
 - Goals should not change; match the “Objectives” field from the WP form
 - Update “1b. What was accomplished under these goals?” and “e. What do you plan to do during the next reporting period to accomplish the goals?” every quarter
- Students and Collaborators:
 - Use drop-down boxes for Project Role (Undergrad, Graduate, PhD, Post Doc), Citizenship, and Country of Foreign Collaborator
 - Nearest person month: If a student works half time (20 hours per week) for three months, round up to two
- Changes-Problems: If a milestone is late or expected late, include explanation in section “b. Actual or anticipated problems or delays and actions or plans to resolve them.”

Quarterly Reporting

❑ Cost and Schedule Status:

- Use drop-downs to provide status for each milestone
- If “UPDATE NEEDED” is selected when template is sent to you, the milestone was scheduled to be completed and status must be changed to Complete, Completed Late, or Late
- Update highlighted cells (percent complete, revised finish date, actual finish date, and narrative) after updating status
- Submit deliverables with completed milestones



Status	Total Budget	Start Date	Finish Date	% Comp	Revised Finish Date	Actual Finish Date	Narrative
On Schedule	\$76,740	10/1/2016	12/29/2019	31%			
Complete	\$8,400	6/1/2017	6/30/2019	100%			
Completed Late	\$6,055	6/1/2017	3/31/2019	100%			
Late	\$76,740	4/1/2017	12/31/2018	0%			
Ahead of Schedule	\$153,525	4/1/2017	6/30/2018	0%			
Expected Late	\$72,000	10/1/2016	9/30/2019	0%			

Quarterly Reporting

Cost Variance

- Complete milestone status before checking cost variance!
- Value earned (VE) is calculated two ways:
 - On schedule: VE= Sum of monthly spend plan to date
 - VE in Sep 2020 = \$14,700
 - If Late, Expected Late or Ahead of Schedule: VE = total milestone budget x % complete
 - If 50 %complete, VE = \$8,450
- Actual costs come from DOE-ID reports and include national lab collaborator costs
- Narrative is required if total cost variance is greater than +/- 10% and +/- \$25,000
- Cost Variance Explanation cell will be highlighted in yellow if required

FY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
2018													0
2019													0
2020							1,700	2,500	3,300	1,200	1,500	4,500	14,700
2021	2,200												2,200
2022													0
Total													16,900

Cost Variance													
FY	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Cumulative Value Earned													
2017			\$39,452			\$78,004			\$162,046			\$199,361	\$199,361
2018			\$0			\$0			\$0			\$0	\$0
2019			\$0			\$0			\$0			\$0	\$0
2020			\$0			\$0			\$0			\$0	\$0
Cumulative Actual Costs													
2017			\$0			\$4,435			\$24,317			\$64,814	\$64,814
2018			\$0			\$0			\$0			\$0	\$0
2019			\$0			\$0			\$0			\$0	\$0
2020			\$0			\$0			\$0			\$0	\$0
Cost Variance													
2017			\$39,452			\$73,569			\$137,729			\$134,547	\$134,547
2018			\$0			\$0			\$0			\$0	\$0
2019			\$0			\$0			\$0			\$0	\$0
2020			\$0			\$0			\$0			\$0	\$0
Cost Variance %													
2017	0%	0%	100%	0%	0%	94%	33%	0%	85%	50%	50%	67%	67%
2018	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-9%	0%	0%
2019	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	0%	0%
2020	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cost Variance Explanation:													

Quarterly Reporting

- ❑ Quarterly, yearly, and final reporting are essential to continued support of university NE R&D research.
- ❑ The quarterly reporting requirements are the obligation of the university, as well as the PI.
- ❑ If quarterly reporting is delinquent, future awards to the university may be in peril.

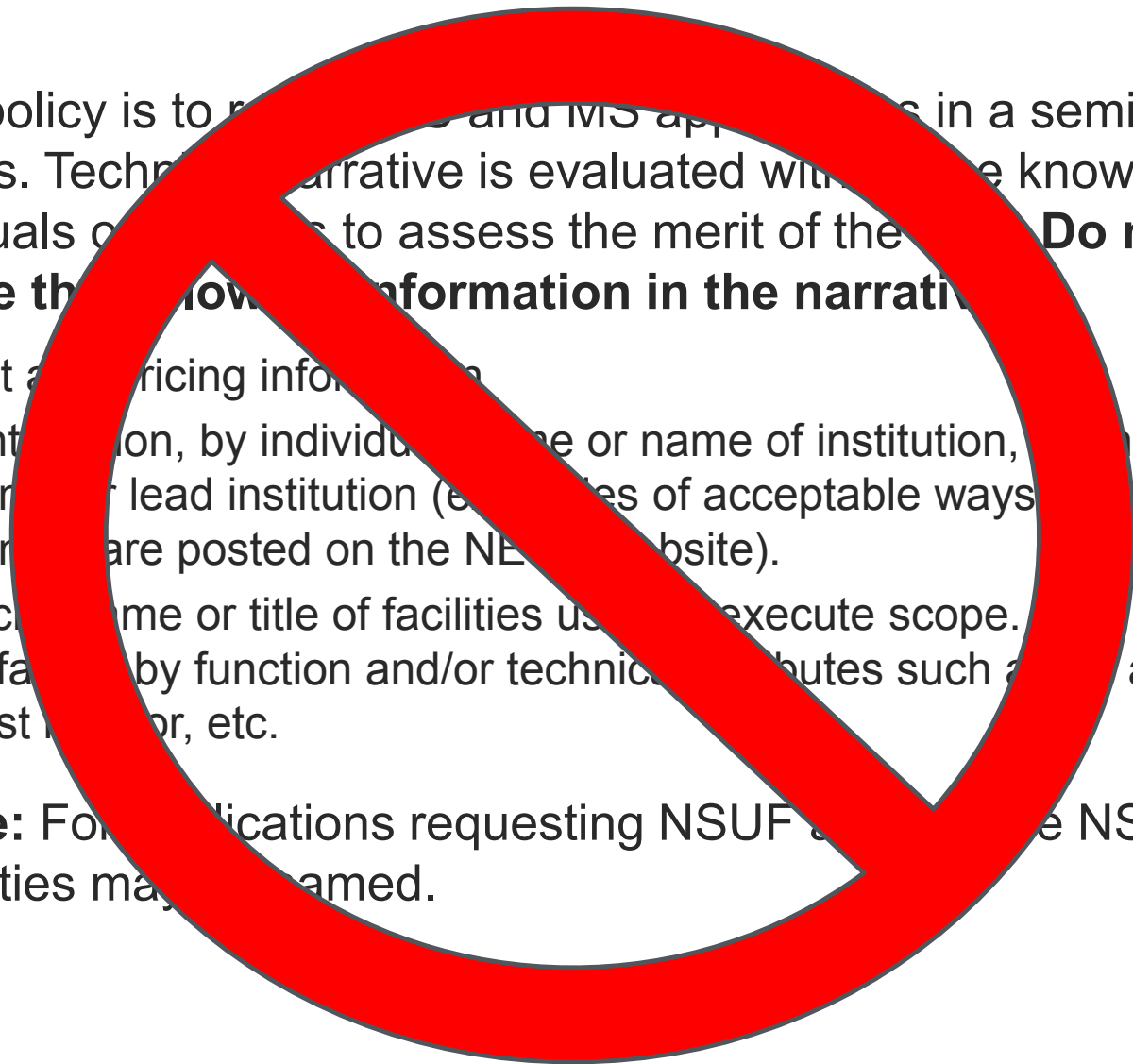


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Semi Blind Reviews

- ❑ CINR policy is to review proposals and MS applications in a semi blind process. Technical narrative is evaluated without the knowledge of individuals or organizations to assess the merit of the proposal. **Do not include the following information in the narrative:**
 - Cost and pricing information.
 - Identification, by individual name or name of institution, of any teaming partner or lead institution (examples of acceptable ways of referring to partners are posted on the NEI website).
 - Official name or title of facilities used to execute scope. Do not describe the facility by function and/or technical attributes such as "accelerator, a test reactor, etc."
- ❑ **Note:** For applications requesting NSUF and use of the NSUF facilities may be named.



Policy Updates and Reminders

- ❑ CINR reviews are no longer performed in a semi-blind format.
- ❑ **All CINR** applications must include a list of publications resulting from previous CINR supported projects.
- ❑ NSUF-2 applications may only be led by industry applicants.
- ❑ Applicants are required to obtain a DUNS number (<http://fedgov.dnb.com/webform>), and register with the SAM website (<http://www.sam.gov/>).
- ❑ NSUF applicants are required to affirm their ability to accept the NSUF User Agreement on submission of LOI, pre-app, and full app.
- ❑ For NSUF pre-applications a separate section describing readiness is required.
- ❑ NSUF SOW's are now uploaded to NEUP.gov.

Policy Updates and Reminders Continued

- ❑ PIs and collaborators are considered final when the pre-application is submitted (extenuating circumstances will be addressed as needed).
 - A collaborator is an individual who makes a defined, material contribution that is critical to the success of the project. **Individuals not meeting these criteria should not be listed as collaborators.**
- ❑ The PI is responsible for selection of appropriate workscope.
 - Full applications must be competed in the workscope to which the pre-applications were submitted.
 - Applications may only be competed in a single workscope area.
- ❑ For review purposes, conflict of interest restrictions, if necessary, will be attributed to the individual, not the institution.
- ❑ Applicants are responsible for not exceeding submission limits.

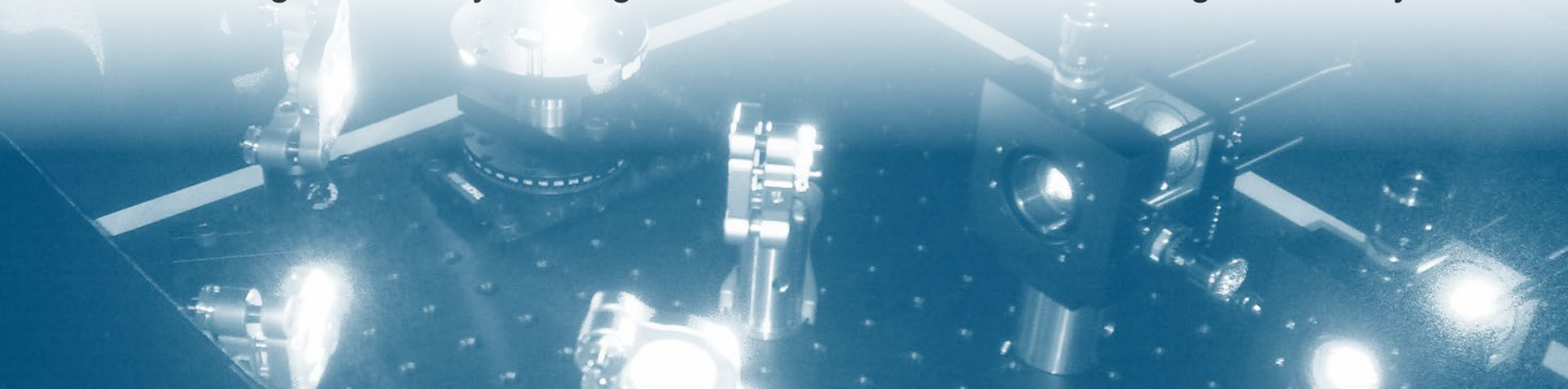
Policy Updates and Reminders Continued

- ❑ Materials required by the FOA must be submitted by the published deadlines. Any material received after these dates may not be considered.
- ❑ U.S. funding may not be provided to international institutions.
- ❑ For university-led applications (except for worksopes under Appendix B), non-university collaborators in composite can have no more than 20% of the total funds provided by the government.
- ❑ **Pre-Award Costs:** Recipients may charge allowable costs to an award 90 days immediately preceding the effective award date. Recipients must obtain the prior approval of the DOE Contracting Officer for any pre-award costs greater than 90 days. Recipients are responsible for pre-award costs if award negotiations are not successful.
- ❑ ***DO NOT LOCK CELLS IN BUDGET SPREADSHEETS.*** Applications with locked cells may be disregarded without further review.

Uninvited Pre-Applications

- ❑ With the exception of NSUF applications, pre-applications that are not invited may still be submitted as full applications

- ❑ Uninvited pre-applications that are received as full applications must meet the following criteria in a re-review to be considered for a full technical review.
 - Relevancy: average score of at least High Relevance
 - Program Priority: average score of at least Moderate Program Priority



Unsolicited Proposals

DOE allows for unsolicited proposals if PIs want to submit proposals that are outside of CINR's workscopes. The proposal should:

- Demonstrate a unique and innovative concept or a unique capability of the submitter
- Offer a concept or service not otherwise available to the Federal government
- Does not resemble the substance of a recent, current or pending competitive solicitation.

Submit unsolicited proposals to:

<https://www.netl.doe.gov/business/unsolicited-proposals>

Contact Information



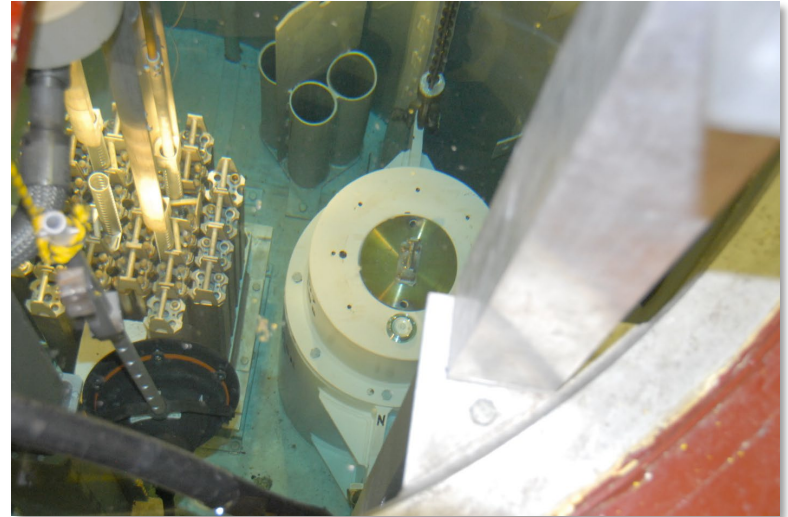
- ❑ Federal/Technical Points of Contact – Technical Questions
 - List of TPOCs found at www.NEUP.gov

- ❑ DOE-ID – Procurement Questions
 - Brandon Stike
 - stikebm@id.doe.gov

- ❑ NE Integration Office – General Application Submittal Questions
 - (208) 526-1602 / (208) 526-8178
 - neup@inl.gov

Infrastructure FOA Organization

Area 1 – University Reactor Upgrades Infrastructure Support (RU)



Area 2 – General Scientific Infrastructure Support (GSI)

Infrastructure Updates & Reminders

- ❑ For Reactor Upgrades, institutions are permitted to submit a single, separate application for each research reactor they operate that is fueled by DOE.
- ❑ For General Scientific Equipment, institutions are permitted to submit one application per institution.
- ❑ To apply to any of the areas in this FOA, the applicant is required to be a current partner, or demonstrate the ability and willingness to join the NSUF as a partner facility, through the NSUF Partnership Program.

RU Review Criteria Changes

- Review processes
 - Each application will receive a merit review by both DOE and NSUF reviewers
- Review Criteria
 - (55%) **Safety and/or Security** – Potential of the requested equipment, instrumentation, or modification to:
 - Enhance the safety, performance, control, or operational reliability of research reactor systems; or
 - Increase the quality, safety/security, or efficiency of the operation of the research reactor facility.
 - (15%) **Impact** – Potential of the requested equipment, instrumentation, or modification to facilitate, improve, or expand ongoing Office of Nuclear Energy research and training capabilities;
 - (15%) **Utilization** – As a result of the proposed equipment, the amount of student and faculty usage of the research reactor facility, and the amount and variety of research and/or services actually provided by the facility;
 - (15%) **Execution** – Capability to implement the full scope of the project, including timely project completion, personnel qualifications, budget, and feasibility.

GSI Review Criteria Changes

- **Review processes**
 - Each application will receive a merit review by both DOE and NSUF reviewers
- **Review Criteria**
 - (25%) **Impact** – Potential of the requested equipment, instrumentation, or modification to facilitate, improve, or expand ongoing Office of Nuclear Energy research and training capabilities;
 - (25%) **Utilization** – As a result of the proposed equipment, the amount of student, faculty, or researcher usage of the capabilities, and the amount and variety of research and/or services actually provided by the facility;
 - (25%) **NSUF Priority** – Importance of the proposed upgrade to the Nuclear Science User Facilities as either improving an existing partner facility or as a potential partner facility.
 - (25%) **Execution** – Capability to implement the full scope of the project including timely project completion, personnel qualifications, budget, and feasibility.

GSI Reminder of Excluded Areas

NSUF -Exclusions

- NSUF provides access to high-performance computational resources at INL at no cost to users
 - Proposals requesting to purchase HPC equipment will **not** be entertained
 - See nsuf.inl.gov or hpcweb.inl.gov for information on accessing HPC resources



Courtesy of Eric Whiting, Director of Scientific Computing (INL)

Contact Information



- Technical questions can be submitted to:
 - Jonathan Kirkham (Technical Point of Contact)
 - NSUF@INL.gov
 - The Infrastructure FOA Q&A section at <https://nsuf.inl.gov/Page/infrastructurefoa>
- Procurement questions can be submitted to:
 - Trevor Bluth (DOE-ID Contract Specialist)
 - bluthtm@id.doe.gov
- Application Site
 - www.neup.gov



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Policy Updates and Reminders

PI Move Request

Policy Drivers

- ❑ The CINR is a competitive funding opportunity announcement (FOA), which abides by financial assistance regulations.
- ❑ Financial assistance must have a competition between similar proposals for funding decisions to be made.
- ❑ DOE-NE awards cooperative agreements to non-Federal entities, not individuals. Applicants to the FOA are universities, not people.
- ❑ Universities, as the awardee, hold responsibility for the ultimate execution of the work.
- ❑ There are financial and regulatory drivers that require that the *awarded* institution executes the work.
- ❑ An award transfer from one institution to another is not allowable.

Policy Applicability

The PI move policy applies as follows:

□ Pre-Award

- Changing the PI specified in an application
 - Pre-Application Date
 - Application not yet submitted
 - Application submitted
 - Post Application Date
 - Prior to selection
- Post Selection Date, but Pre-Award



Policy Applicability

The PI move policy applies as follows:

❑ Post Award

- Changing the PI specified in the award document
- Adding or deleting a Co-PI – any change in a key person requires prior DOE approval
- Disengagement from the project for more than 3 months, or a 25% reduction in time devoted to the project by the approved PI
- Transfer of any part of the research or programmatic effort to another institution (or sub-awarding), unless already described in the application and in the approved award
 - ✓ Not applicable for acquisition of supplies, materials, equipment, or general support services.

NOTE: *Final approval is required for any of these requests by a DOE Contracting Officer.*

Options for Institutes of Higher Education (IHE)

When a PI is exiting a University (University “A”) and moving to another (University “B”)...

Option 1: University “A” requests approval from DOE to assign a new PI at University “A”

- New lead PI takes over the R&D project. (If not approved by DOE, University “A” can submit another PI, or move to another option.)

Option 2: University “A” requests approval from DOE to assign a new PI at University “A”, assign exiting PI from University “A” moving to University “B” as a Co-PI and University “B” added as a sub-awardee to the award.

- Workslope and funding can be reassigned to University “B” through a sub-award.
- New lead PI at University “A” involvement can be negotiated between the original PI (now University “B”) and new PI (now University “A”)
- New lead PI (now University “A”), at a minimum, must submit quarterly progress updates about the project if technical scope is being managed and completed by the old lead PI (now University “B”).

Option 3: Cancel the award (pre-award) / terminate the award (post-award)

Alternate Option: Adjunct Faculty Position

- A PI (original at University “A”) may get approval from the institution to maintain an adjunct faculty position with the university. These typically last under 1 year so this option would only be available for projects that are close to completion.
- Rules for adjuncts vary widely by institution so please ensure that this is a viable option in your circumstance.

Reminder: Final approval is required for any of these requests by a DOE Contracting Officer

Assigning a New PI (University “A”)

- ❑ A formal, written request must be sent to the Contracting Specialist* for the award. The request should contain the following information:
 - Identify a new PI for University “A” and provide rationale/justification for the change.
 - If pursuing the sub-award request option, a description of the proposed sub-award to the new university (University “B”) including supporting documents (budget, budget justification, capabilities, etc.)
 - ✓ Same information as required in the original FOA.
 - A justification for why the project can still be successful.
- ❑ The request will be reviewed by the Contract Specialist, Contracting Officer, and Technical Project Officer to determine if the request has merit and remains within programmatic boundaries for DOE-NE.
- ❑ DOE will accept or reject the proposed plan. There is opportunity to rewrite the arrangement if it is not acceptable.

* Your Office of Sponsored Programs will have contact information for the Contract Specialist

What Happens to Sub-Awards?

- ❑ Typically, no action happens with existing sub-awards
- ❑ Universities holding the prime award (University “A”) must submit a new budget for their newly added sub-awardee (University “B”), and new master budget for the award. (Sub-awardees will be approved in the same way a new PI is approved, as described in the previous slide.)
- ❑ If a Co-PI leaves a sub-award institution, prime award holders:
 - Have the sub-awardee remain in place asking sub-awardee to suggest a replacement Co-PI. DOE Contracting Officer approval is necessary.
 - ✓ Submit new sub-award budget to Prime awardee, if necessary.

NOTE: If the collaborator is from a national laboratory, the funds will stay with the national laboratory and a new Co-PI/collaborator will be assigned.

Summary

- ❑ Applications submitted to the CINR FOA are awarded to the applicant institution and cannot be transferred to another if a lead PI changes institutions.
- ❑ PIs or Co-PI's that are moving from one institution to another during and/or after the CINR review process are subject to the DOE's PI Move/Change Policy which is explained at www.NEUP.gov.
- ❑ Awards are made to the applying institution and will remain at that institution for the entirety of the project.
- ❑ Any additional changes to partners/collaborators need prior approval by the DOE Contracting Officer.

No Cost Extension Policy

- ❑ No-cost time extensions (NCE's) on existing DOE-NE funded projects ending in the current fiscal year should be requested by April 15. Any request beyond this date should be submitted after October 1. One no-cost time extension request may be granted for up to 12 months pending review and approval. **No more than one no cost time extension will be allowed.**

- ❑ A PI with a no-cost extension past December 31 of the current year will be disqualified from competing for a new award. (i.e. December 31, 2018 for the FY 2019 CINR).

- ❑ Requests should be submitted to (both):
 - Brandon Stike: bmstike@id.doe.gov
 - Nick Case: Nick.Case@inl.gov

No Cost Extension Policy Drivers

- ❑ DOE efforts to integrate the university research portfolio with direct program work is compromised by NCE's.
- ❑ To enable integration, work needs to be completed on schedule to deliver results in to the program to potentially define the next phase of NEUP workscope priorities. Late results create a situation where university research becomes disconnected from current program priorities.
- ❑ No cost extension requests, and the justifications for the requests, are of high interest to upper DOE-NE management.

No Cost Extension Requests

Year	Number of Projects	Approved NCE	Projects requesting NCE	NCE's less than 3 months	NCE's Less than 1 year	NCE's greater than 1 year
2011	59	34	58%	9	14	11
2012	52	37	71%	2	24	11
2013	75	48	64%	4	42	2
2014	61	37	61%	17	20	0
2015	61	29	48%	13	16	0

- Since eligibility requirements were updated to include consideration of NCE status on projects, the requested duration of the request has dramatically decreased.

Reviews

CINR Reviews

Peer Review		Panel Review	
R&D Pre-Applications	2 Federal Relevancy, 1 Technical Peer Review	Integrated Research Projects	2 Federal Relevancy, 3 Technical Peer Reviewers
R&D Full Applications	2 Federal Relevancy, Multiple Technical Peer Review (2 or more)	Infrastructure	2 Federal Relevancy, 3 Technical Peer Reviewers

All applications go through an initial review to check for compliance with FOA requirements

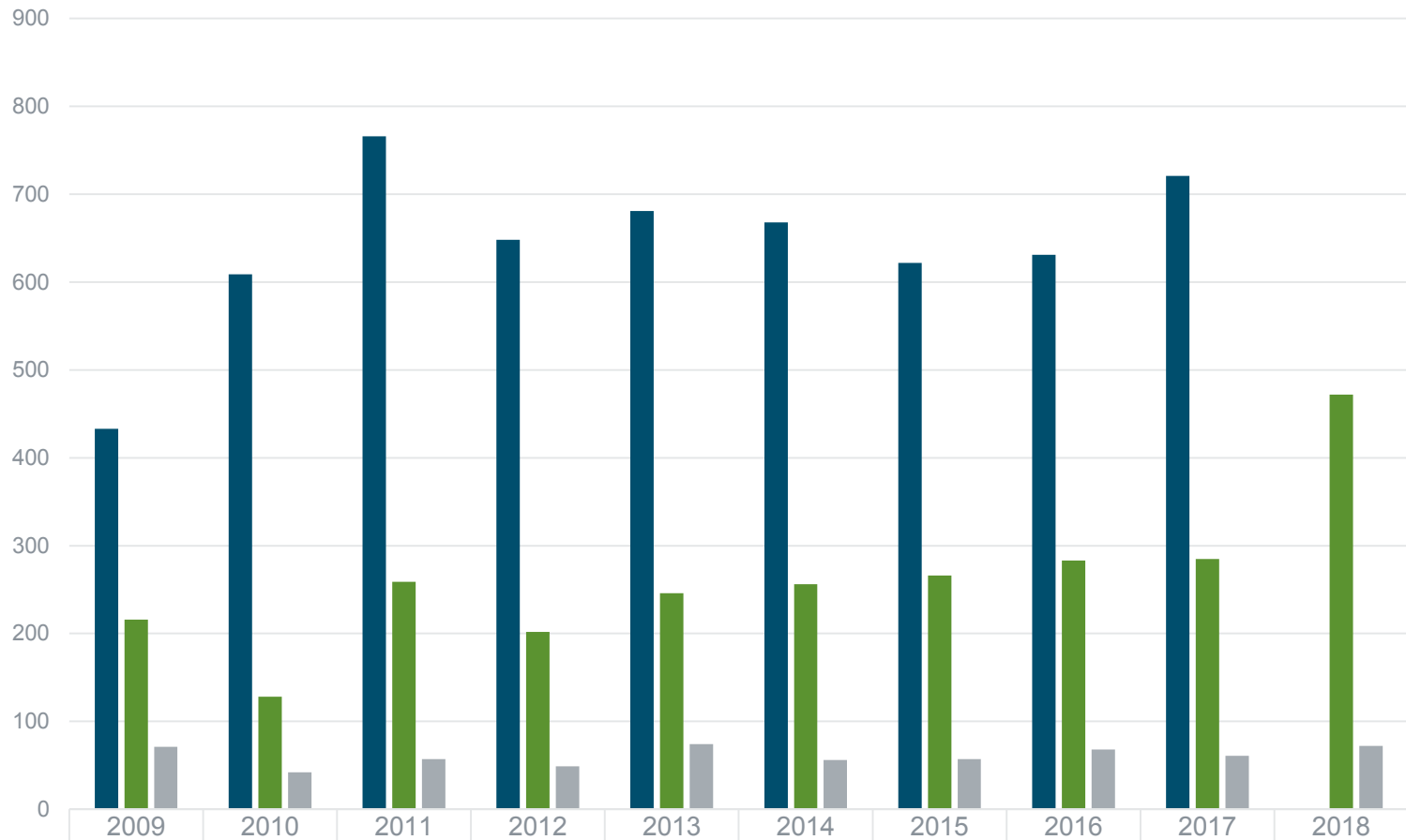
How Many Reviews Does Your Application Get?

- An initial review (one pre-application, one full application)
- Pre-Applications are reviewed at least 3 times (2 relevancy, 1 technical)
- Full Applications are reviewed at least 5 times (2 relevancy, typically 3 technical)

Each full application submitted goes through 10 different reviews.

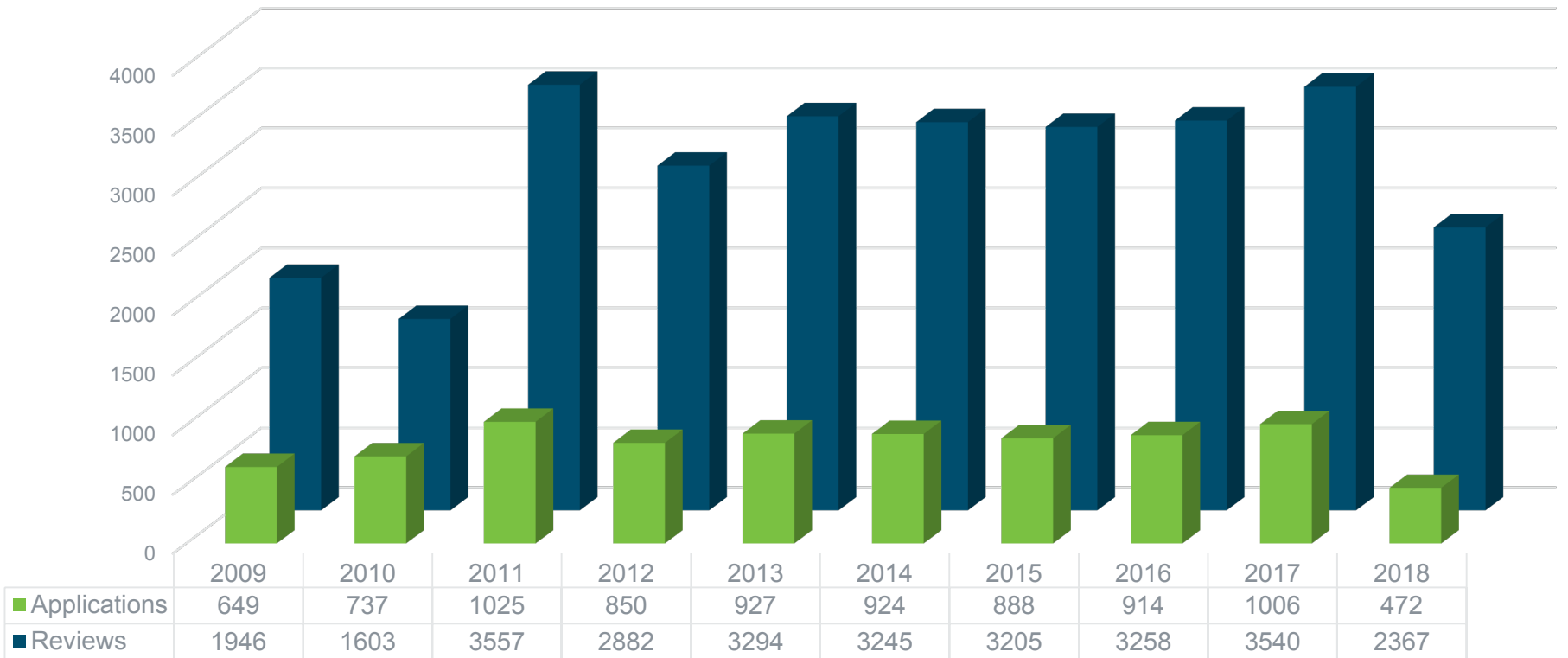
An average PI submits 3 pre-applications and 1 full application resulting in 18 individual reviews.

Total Number of Submissions 2009-2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Pre-Applications	433	609	766	648	681	668	622	631	721	
Full Applications	216	128	259	202	246	256	266	283	285	472
Awarded	71	42	57	49	74	56	57	68	61	72

Total Number of Reviews: Relevancy and Technical



Conflicts of Interest

Conflict of Interest managed on the institutional level (if possible).

Conflicts may be managed on the individual level

- Individuals not participating in the area (as lead or collaborator) can review in that area as long as their institution is not participating on the proposal.

Individuals are instructed to declare conflicts that we cannot assess

- Current collaborative relationships (publishing, proposing, etc.)
- Student/Advisor relationships
- Personal conflicts of interest

Example Workscope

- **38 Applications from 25 lead institutions**
 - **41 additional collaborating institutions (66 institutions total)**
 - **141 individuals conflicted in the area.**

In-Process Review Evaluation

- Scoring Evaluation: All reviews are compared to those of their peers and relevancy scores for any anomalies.
- Anomaly Identification and Marking: During final evaluation and review by federal and lab personnel, all anomalies that were identified during the scoring evaluation are revisited by the recommendation team.
 - All anomalies and low scoring reviews are reviewed by federal and technical experts to evaluate whether the comments are warranted or not.
 - If review is found to be an unwarranted outlier, the review team disregards the review and performs one of two actions: 1) finds an alternate reviewer; or 2) disregards the review and lets the remaining reviews stand.

Comments

- All comments are reviewed by INR-IO staff for grammar and appropriateness.
- Comments are intended to provide feedback to improve proposals.
- There is a misconception that critical comments mean a low merit or relevancy evaluation. These two things are not necessarily correlated.
- There is no opportunity to receive further feedback from relevancy and technical reviewers through this process.

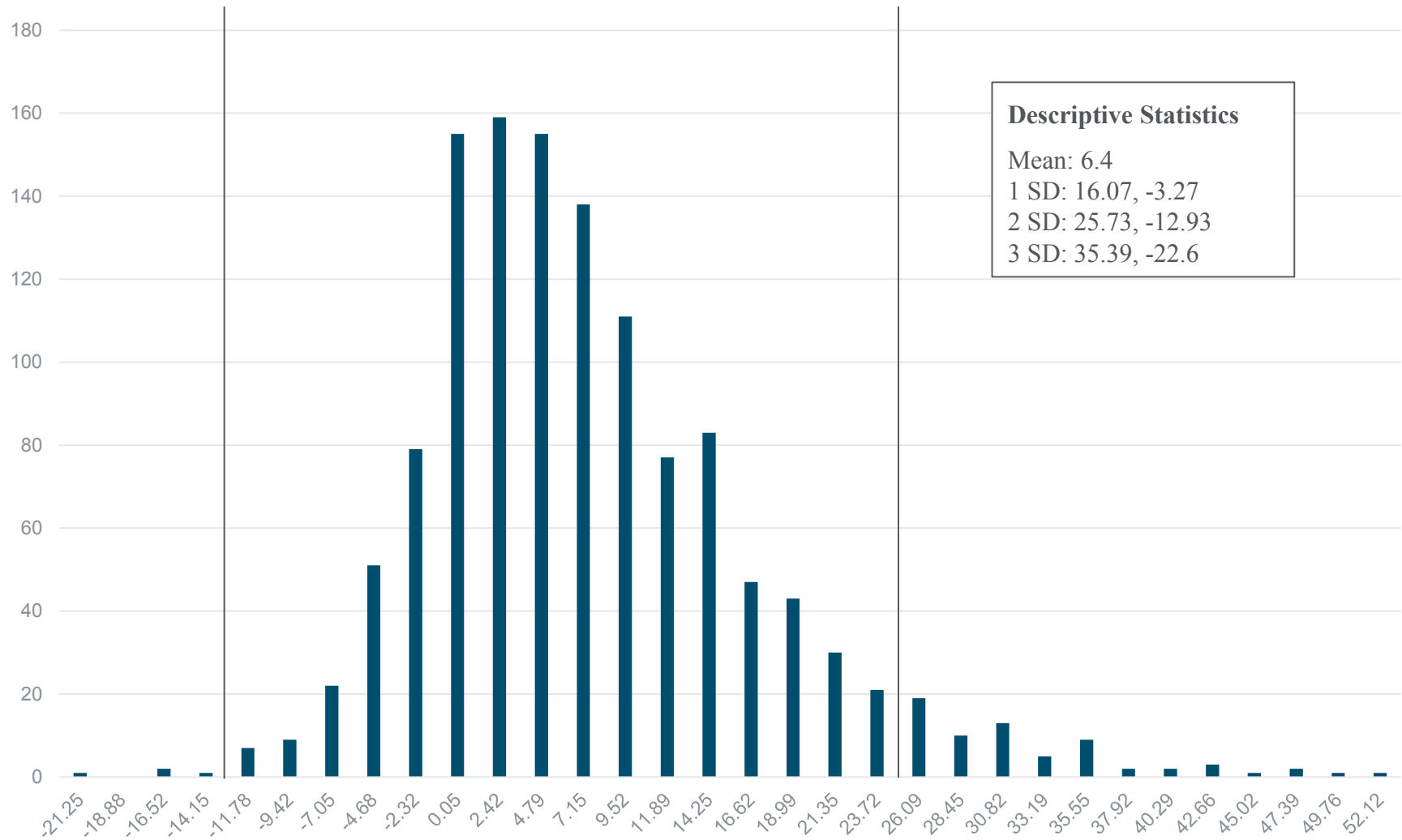
Reviewer Evaluations

- Reviewers are added to the review pool that meet minimum qualifications
 - Reviewers from academic institutions: Obtained the level of assistant professor or higher.
 - Reviewers from national laboratory or industry: A minimum of 10-years of experience in their respective field at an academic, national laboratory, or industry institution after obtaining an advanced degree.
 - All reviewers that were approved between 2009-2016 are grandfathered in as eligible reviewers.
 - Reviewers not meeting these criteria can be approved on a case-by-case basis based on workscope area need (i.e. emerging area with limited reviewers, non-traditional research areas, etc.).

Reviewer Evaluations

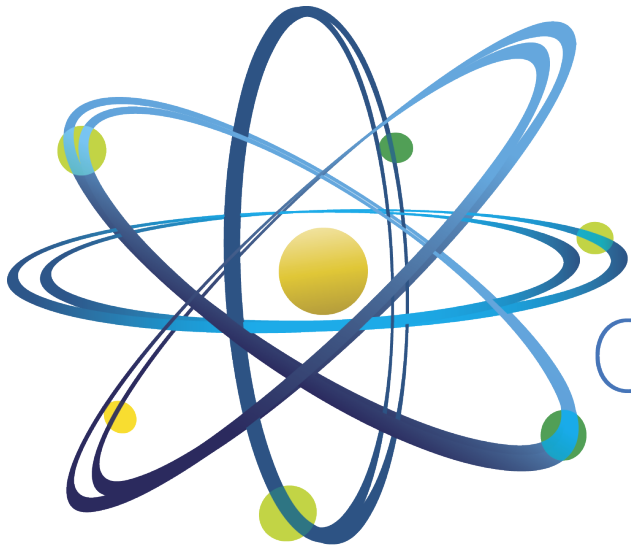
- The INR-IO uses a statistical model to detect systemic review inconsistencies with individual technical reviewers over time.
- Data is used from 2013-2018 full application review cycles. All reviewers during that timeframe are part of the model.
- An index for each reviewer is compiled based on the average variance of their review scores as compared to their peers reviewing the same application. This is referred to a reviewer variance score.
 - Submitted and disregarded reviews are included in this index.
- Standard distribution is used to identify consistent outliers. These reviewers are recused from further review responsibilities.

Reviewer Evaluations



Descriptive Statistics
Mean: 6.4
1 SD: 16.07, -3.27
2 SD: 25.73, -12.93
3 SD: 35.39, -22.6

Questions?



Clean. **Reliable. Nuclear.**

University-led R&D: Appendix A

❑ Award Size

- Program Supporting: up to \$800,000
- Mission Supporting: up to \$400,000

❑ Period of Performance

- up to three years; up to seven if irradiation and PIE are proposed in NSUF worksopes

❑ Eligibility

- only universities are eligible to lead
- universities, national laboratories, and industry are eligible to collaborate

❑ Estimated Funding Level

- approximately \$45 million, totaling approximately 56 awards

University-, National Laboratory-, or Industry-led: Appendix B

❑ Award Size

- Program Supporting NEET: up to \$1,000,000
- NSUF worksopes: \$500,000 for R&D request, up to \$4 M for irradiation/PIE, \$1.5 M for irradiation, or \$750,000 for beamline or PIE access request

❑ Period of Performance

- up to 3 yrs; up to 7 if irradiation and PIE are proposed in NSUF worksopes

❑ Eligibility

- NSUF-1 applications are open to universities, national laboratories, and industry to lead or collaborate.
- NSUF-2 applications are open to industry lead only

❑ Estimated number of awards

- approximately \$10 million, totaling approximately 15 awards

University-led IRP: Appendix C

□ Award Size and Period of Performance

- IRP-NE-1: International Challenge Problem for Nuclear Energy. \$3 M, three years
 - Requires Japanese researcher collaboration
- IRP-NEAMS-1: Extend NEAMS Tools to Support Design and Analysis of Fast Reactors. \$5 M, five years

□ Eligibility

- Only universities are eligible to lead.
- Universities, national laboratories, and industry are eligible to collaborate.
- International collaborations are encouraged.



Tools for Understanding the FOA

❑ Eligibility Workflow

- Detailed eligibility restrictions can be found at https://neup.inl.gov/SiteAssets/FY19_%20Documents/FY19_CINR_FOA_Eligibility_Flowchart.pdf

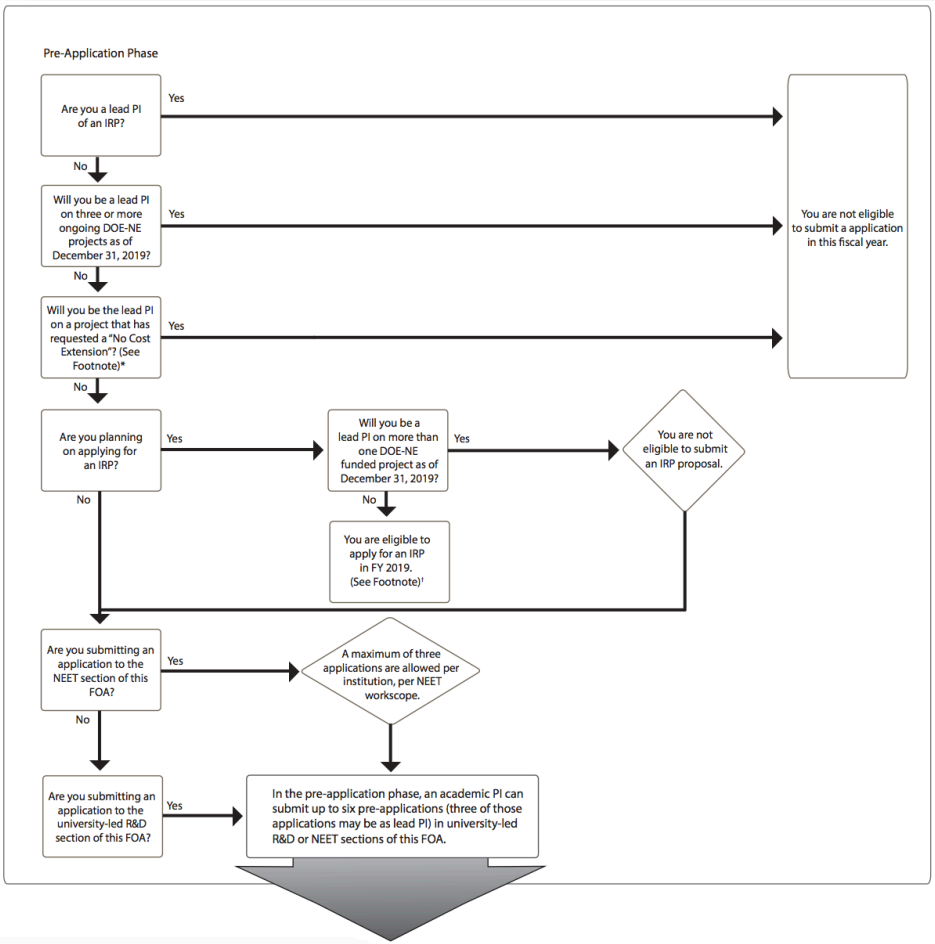
❑ R&D Federal/Technical Points of Contact

- https://neup.inl.gov/SitePages/FY19_RD_Technical_Program_Contacts.aspx

❑ IRP Federal/Technical Points of Contact

- https://neup.inl.gov/SitePages/FY19_IRP_Technical_Program_Contacts.aspx

R&D Submittal Guidelines & Eligibility

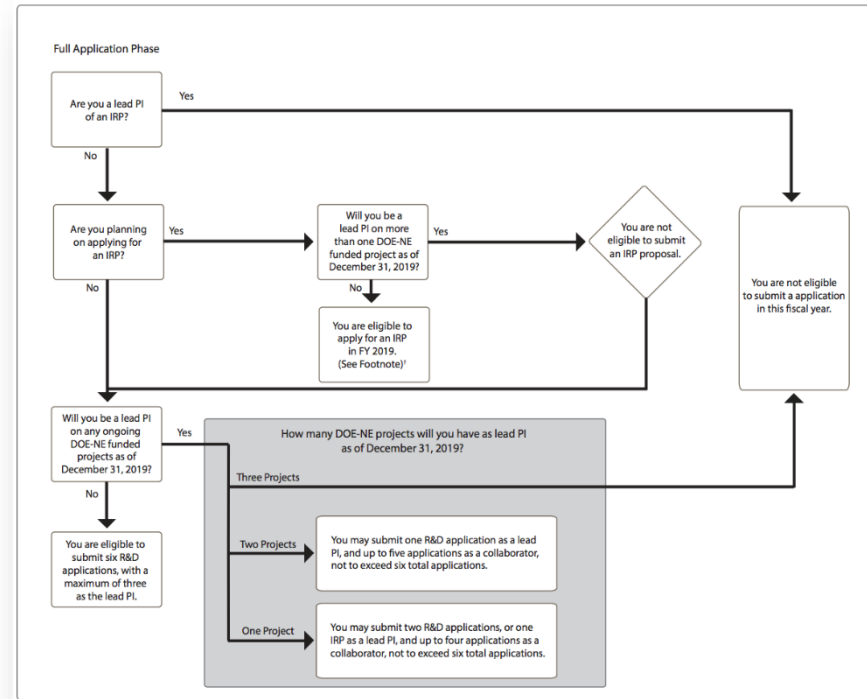


- ❑ **Ineligible to submit to this FOA as a PI:**
 - Lead PIs on an active IRP
 - University PIs with three or more R&D projects that will be active after December 31, 2019
 - PIs with a No Cost Extension (NCE) on any DOE-NE funded project that will be active beyond December 31, 2019

- ❑ **Pre-application submittal limits:** University PIs can be included on no more than six pre-applications total, with no more than three of those submissions as the PI.

R&D Submittal Guidelines & Eligibility Cont.

- ❑ Full application submittal limit: A university PI may have no more than one IRP, or 3 active R&D projects at any time and may not submit more full applications than allowed should the applications be selected for funding. *NSUF access only applications are excluded, other NSUF applications are evaluated case by case.*
- ❑ Appendix B applicants are limited to 3 applications per institution per workscope area.
- ❑ Existing NCE's that will end before December 31, 2019 are not subject to this restriction. NCE requests for projects ending in FY 2018 must be submitted by April 15, 2019.



R&D Submittal Guidelines & Eligibility Cont.

❑ **NEET-CTD funded research:**

- Universities, National Laboratories, and industry are limited to three pre-applications per institution per workscope area.
- For university PIs, these submissions count toward the pre-application limits.

❑ **IRP applications:**

- Applicants are ineligible to submit as the PI if they are designated as PI for more than one currently funded DOE-NE research project that will still be active beyond December 31, 2019.
- PIs may not submit a R&D application and an IRP application in the same year.

❑ **NSUF projects that request R&D support will be evaluated on a case-by-case basis.**

❑ **NSUF access only applications are exempt from eligibility restrictions.**

Research Elements

❑ Program Supporting

- supports NE programs
- defined by, and focused on, the statement of objectives developed by responsible programs



❑ Mission Supporting

- must support NE mission
- includes research in fields or disciplines of nuclear science and engineering that are relevant to NE's mission but may not fully align with the specific initiatives and programs as described in Program Supporting objectives



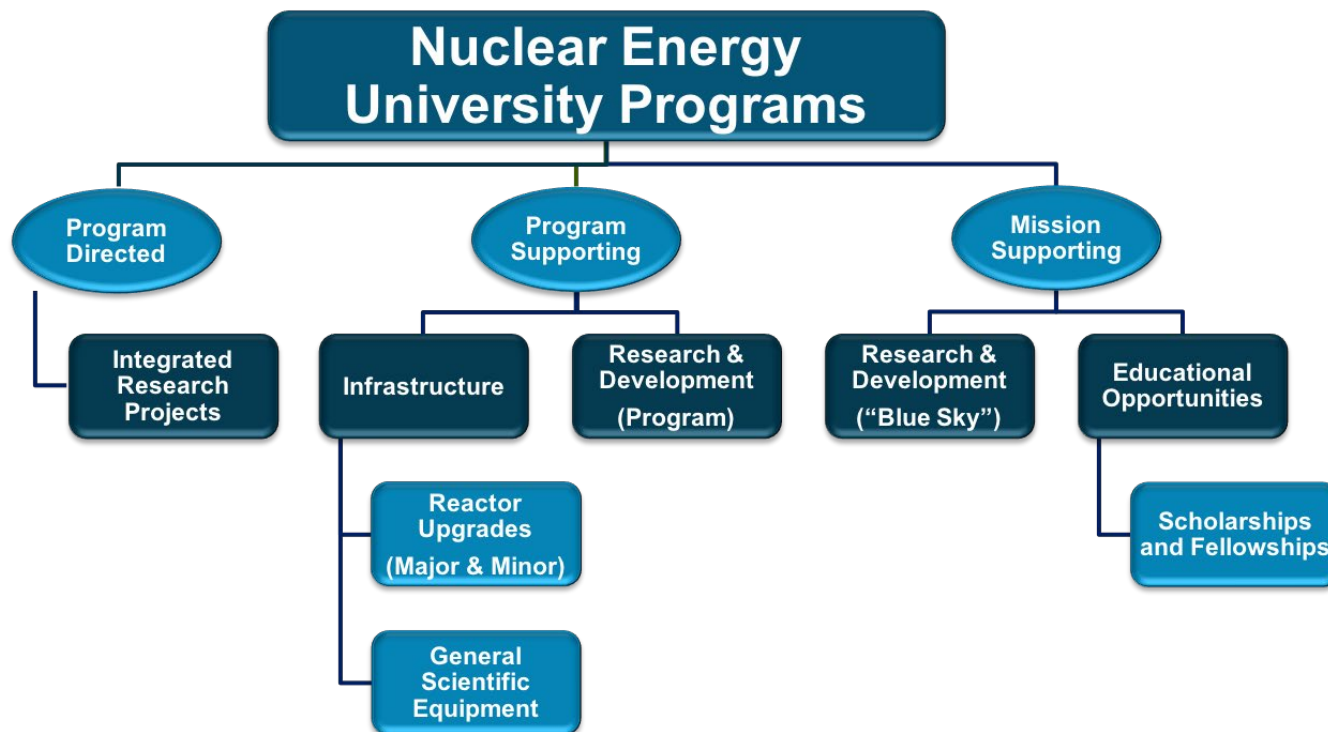
❑ Program Directed

- directed by NE programs
- significant projects within specific research areas
- intended to develop a capability to address specific needs, problems, or capability gaps identified and defined by DOE



NEUP/IUP Structure

- ❑ Competitive process for awarding U.S. University-led R&D and infrastructure projects, and scholarships/fellowships to US or permanent resident students in NE fields of study.
- ❑ US universities can be supported by US national labs, industry, and international partners



*IUP Supported

FOA Organization

University-led R&D (NEUP and NSUF worksopes):

- Appendix A
 - Program Supporting
 - Mission Supporting

University-, National Laboratory-, or Industry-led R&D (NEET, NSUF worksopes):

- Appendix B
 - Program Supporting
 - Industry may only lead on applications submitted to NSUF worksopes.
 - National laboratories and universities are not eligible to lead NSUF-2 worksopes.

University-led, Integrated Research Projects:

- Appendix C
 - Program Directed