

ERCAP

• Energy Research Computing Allocations Process (ERCAP)

- o Accessed through the ERCAP Application Interface at:
 - https://ercap.nersc.gov
 - Use your NERSC username, password, and One-Time Password
- o Renew current projects and request new projects
- o Science objectives, approach, and resource requirements
 - Computer time, Archival and Community storage space
- o Reviewed and awarded by DOE Office of Science Programs
- o Allocation awards for renewals are announced in December
 - Allocation Year (AY) 2023 starts January 18, 2023







ERCAP AY 2023 Milestones

- ERCAP open for AY 2023 requests August 15, 2022
- ERCAP submissions due October 3, 2022
 - ERCAP requests can be submitted year round, but the vast majority of time is allocated to projects that submit by Oct. 3
 - There may be no time available in your area for submissions after the deadline
- DOE Office of Science program managers in your field review the proposals and make awards
- Award announcements the week of December 12, 2022
- AY 2023 starts January 18, 2023







Unit of Currency: Node Hours

- Allocations, charging and usage tracking for 2023 will be in units of Node Hours
- Two distinct allocation pools that are not interchangeable
 - CPU Node Hours
 - GPU Node Hours
- One CPU Node Hour is charged for running on one Perlmutter CPU-only node for one hour.
- Similarly, one GPU Node Hour is charged for running on a single Perlmutter GPU-accelerated node for one hour







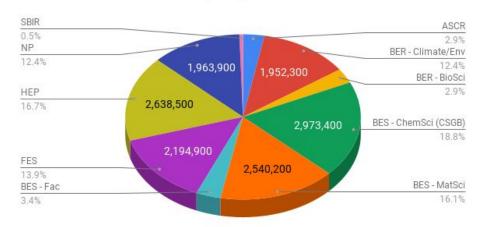
Available CPU Time and Distribution

The CPU time available for AY 2023 is ~15.79 Million CPU Node Hours

To help you size your request, we have published the total allocation available for each Office of Science area at

https://bit.ly/3bAsmzS

AY2023 CPU Distribution by Program







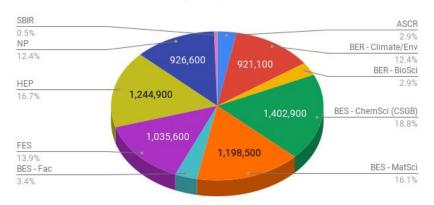


Available GPU Time and Distribution

The amount of GPU time available for AY 2022 will be ~7.45 Million **GPU Node Hours**

To help you size your request, we have published the total allocation available for each Office of Science area at

AY2023 GPU Distribution by Program



https://bit.ly/3bAsmzS

Check https://docs.nersc.gov/applications/ to see if your software application will be installed for Perlmutter GPU nodes or is known to have a GPU version available







Getting Assistance

You can contact us with questions or about any problems you may be having at any time.

Email: <u>allocations@nersc.gov</u>

Questions about popular GPU application availability and performance on Perlmutter GPUs:

Submit a ticket at: https://help.nersc.gov/

Join us for ERCAP Office Hours

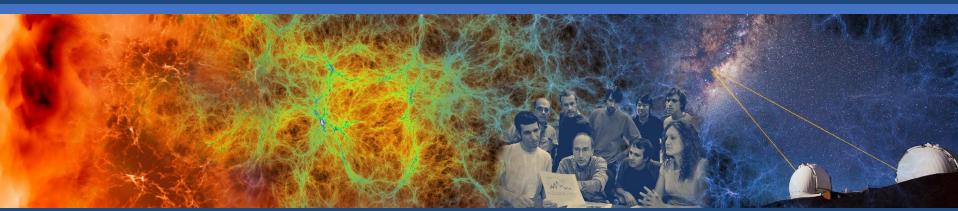
- August 25, September 15 & 29, October 3, 2022
 - 09:00 PDT 12:00 PDT and 13:00 PDT 16:00 PDT
- Join us on Zoom to get hands-on help
 - Zoom session login information is online here: https://bit.ly/3tHuvOF







Demonstration

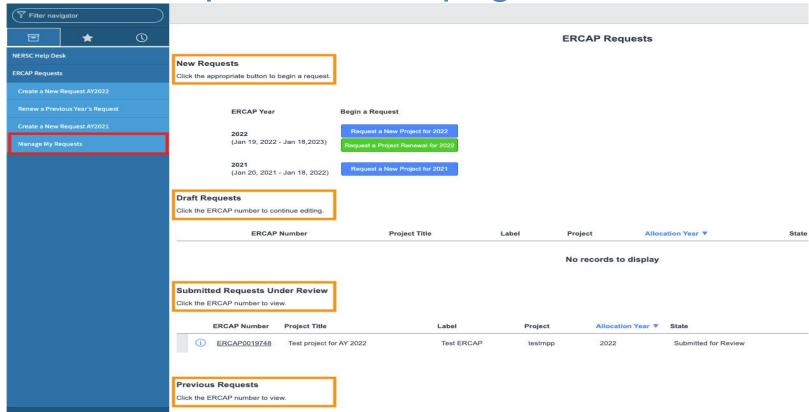








ERCAP Requests Homepage

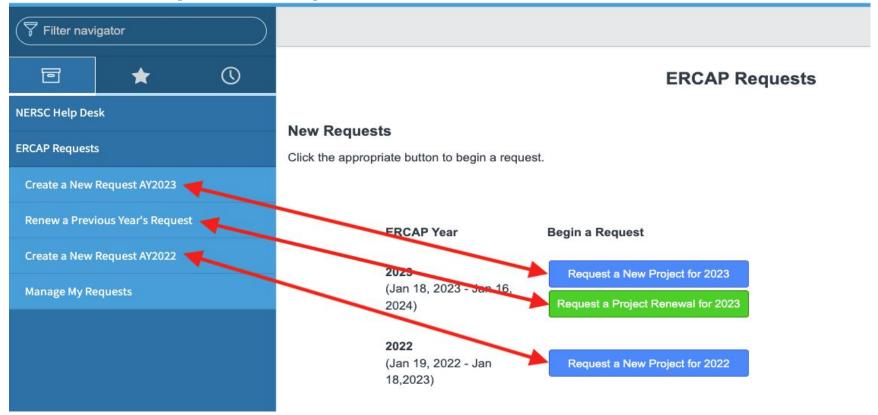








Start Request Options

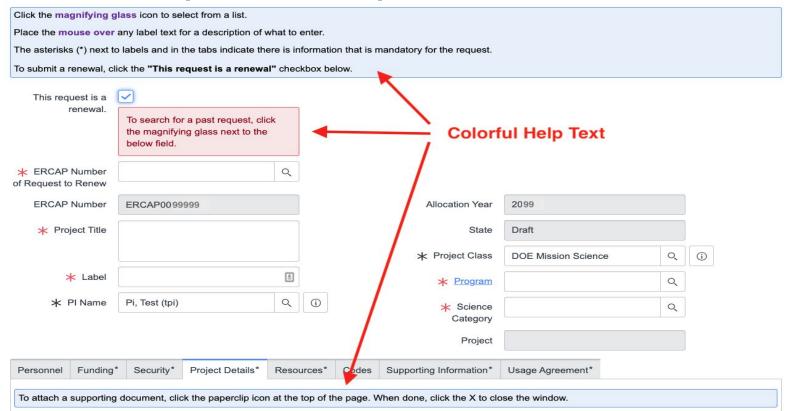








ERCAP Request - Help Text









Mandatory/Missing Items

Click the magnifying glass icon to select from a list. Place the mouse over any label text for a description of what to enter. The asterisks (*) next to labels and in the tabs indicate there is information that is mandatory for the request. To submit a renewal, click the "This request is a renewal" checkbox below. This request is a Asterisks to Indicate Mandatory/Missing Data renewal. ERCAP00 99999 **ERCAP Number** Allocation Year 2099 pject Title State Draft * Project Class **DOE Mission Science** Q (1) * Label * Program Q Pi, Test (tpi) * PI Name * Science Q Category Project Project Details* Resources* Supporting Information* Usage Agreement* Personnel Funding* Security* Codes

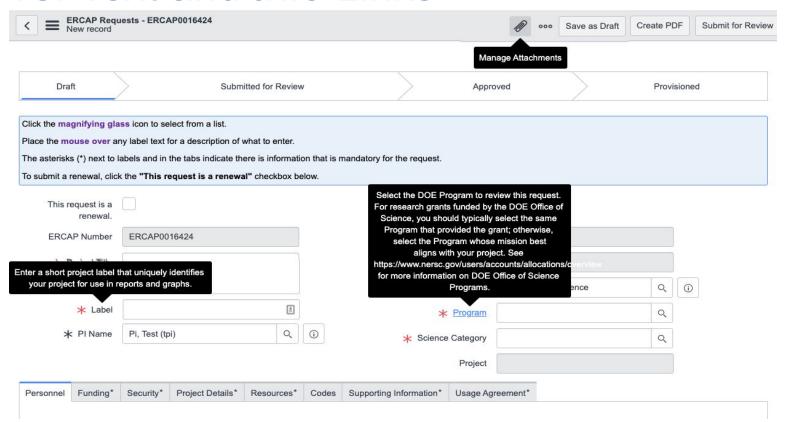






To attach a supporting document, click the paperclip icon at the top of the page. When done, click the X to close the window.

Hover Text and Info Links

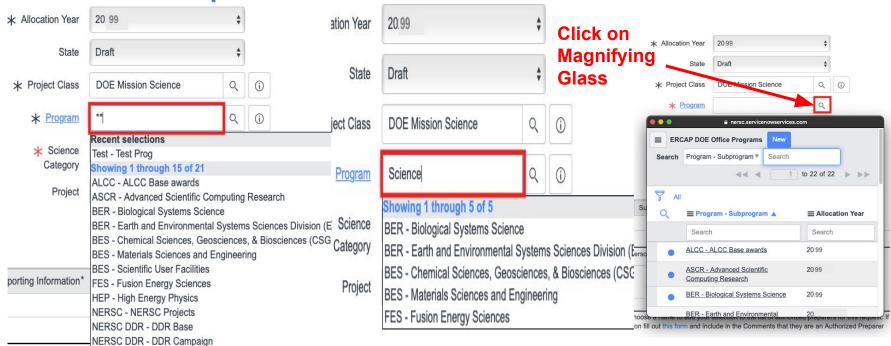








Search Options





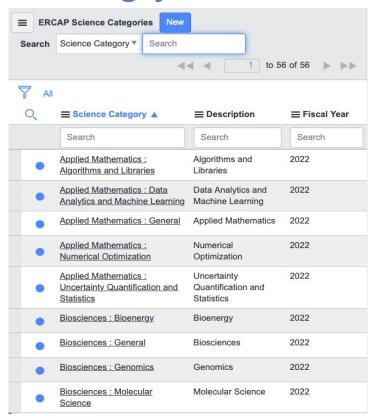
nel you would like to INERSC DDR - DDR ECP

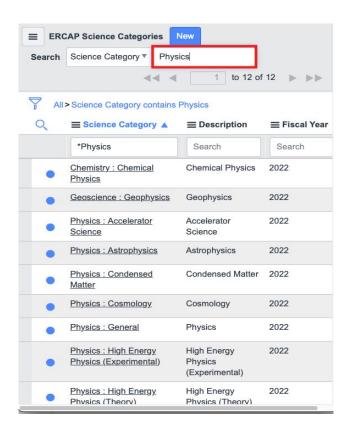
NERSC DDR - DDR Industry NERSC DDR - DDR Scale





Refining your search



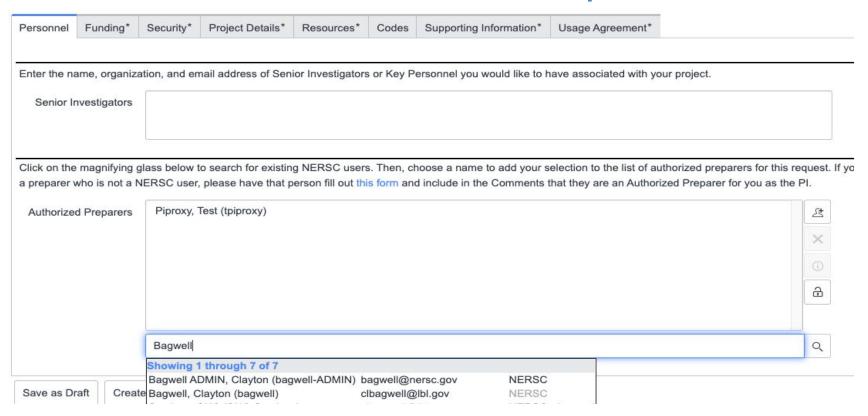








Personnel Tab - Authorized Preparers

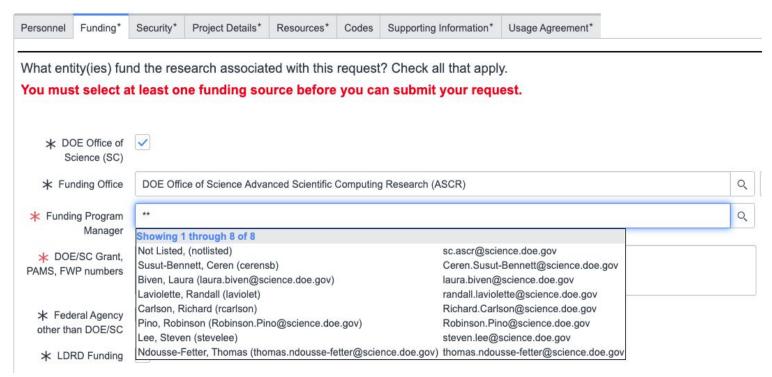








Funding Tab - DOE/SC Program Managers



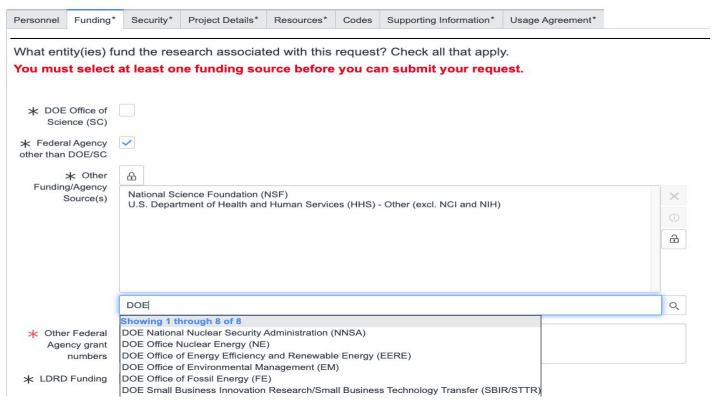
http://www.nersc.gov/users/accounts/allocations/doe-science-offices-programs-and-allocation-managers/







Funding Tab - Federal Agencies









Funding Tab - Additional Options

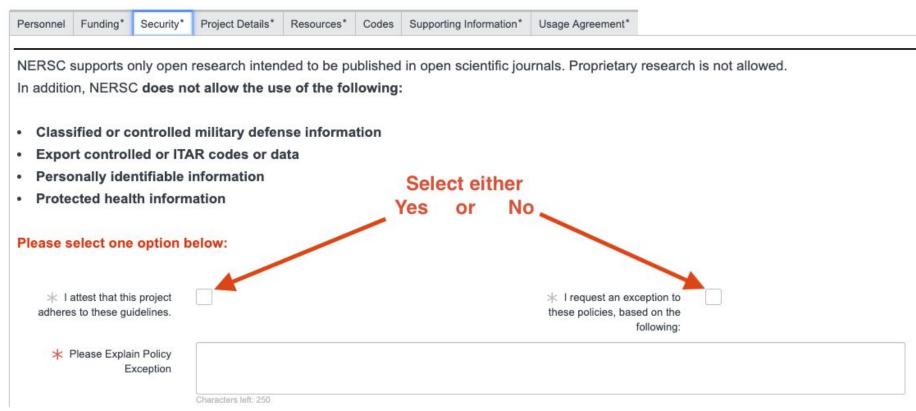
LDRD Funding	
State or local government or agency	
Foreign Government or Agency	
University	
Non-profit Organization	
Other	
For projects not for mission of that pro	unded by DOE/SC, please describe the project's relevance to one of the DOE Office of Science programs and the ogram.
(Projects that ca	n demonstrate alignment with a program mission are much more likely to receive awards.)
★ Office of Science relevance	







Security Adherence









Project Details - Two Project Descriptions

Personnel Funding* Security* Project Details Resources* Codes Supporting Information* Usage Agreement*

To attach a supporting document, click the paperclip icon at the top of the page. When done, click the X to close the window.

Provide a brief summary of your project easily understood by people outside your field. What will this project accomplish? What is the significance of this work?

★ Project Summary and Goals This is my easy to understand, Scientific American level project description. It is easily understood by people outside of my field. It describes what my project will accomplish and the significance of my research.

Provide a more technically detailed explanation of your research for proposal reviewers.

★ Detailed Description for DOE Managers This is my more highly technical description of my project, aimed at the DOE managers, and lays out my research plan in detail.







Project Details - Accomplishments & Publications

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Summarize the accomplishments of this project in terms easily understood by people outside your field. Explain the importance of your results and how using NERSC resources supported your research objectives.

Accomplishments
Summary

Summary of the accomplishemnts of this project over the past year utilizing NERSC resources.

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Provide citations for published (or scheduled to be published) research that relied, at least in part, on the use of NERSC resources. Please leave one blank line between items, you must include a DOI for each item, and do not include publications you cited in last year's ERCAP request. If you do not have a DOI, please enter in the next section with a brief explanation.

* Refereed Publications

Bard, D.J. et al. (2021). Automation for Data-Driven Research with the NERSC Superfacility API. In: Jagode, H., Anzt, H., Ltaief, H., Luszczek, P. (eds) High Performance Computing. ISC High Performance 2021. Lecture Notes in Computer Science(), vol 12761. Springer, Cham. https://doi.org/10.1007/978-3-030-90539-2_22

List other relevant publications you want the reviewer to consider.

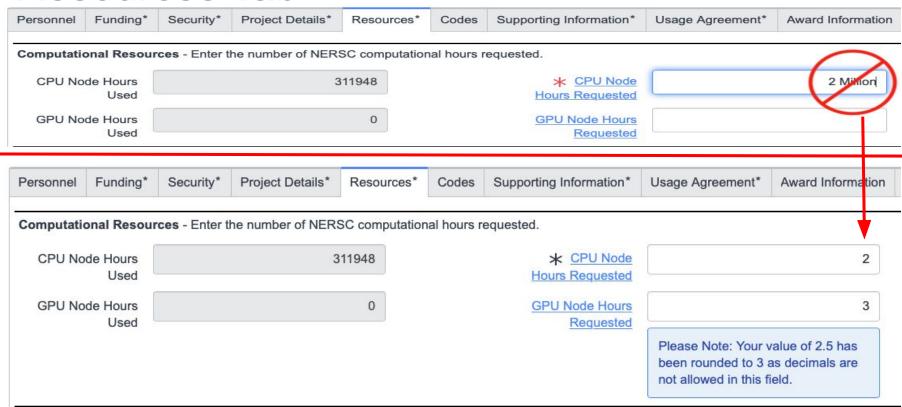
Non-refereed materials







Resources Tab

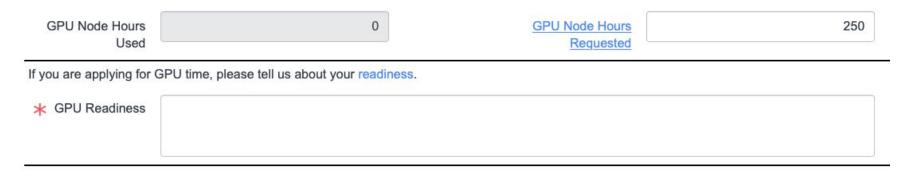








GPU Node Hour Requests



- When requesting GPU Node Hours, you must include a statement of your code's readiness to run on GPUs
- Refer to the Perlmutter readiness page:
 - https://docs.nersc.gov/performance/readiness/







CFS and Archival Storage Requests

HPSS Archival storage - Enter the amount of Archival (HPSS) storage requested in TBs (Default 1 TB). Include enough to cover your currently stored files and your anticipated additional storage for the new year. This will be your new total quota for the year.



- Archival HPSS, Community Storage (CFS) usage and request amounts are in TBs
- You must request at least as much as you are currently using







Resource Tab - Justification & Special Requirements

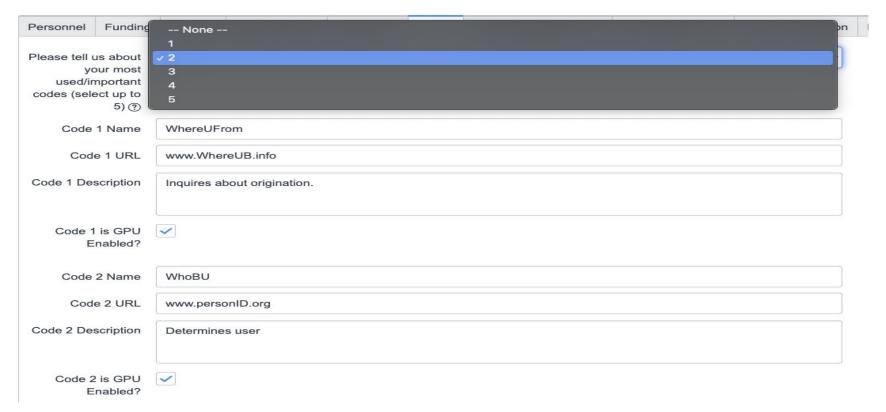
Briefly describe how you est	mated the compute hours and storage space requested above.
★ Justification for Request	
If your forecasted computer	usage will be uneven throughout the year, please provide a percentage breakdown by quarter so we can consider this in our allocation management planning.
Key Events or Deadlines	
Check this box if your project	t requires real-time access to computing resources, e.g., if associated with a live experiment.
Need real-time computing?	
Is the primary purpose of this	s request to support the operation of and/or data analysis from an experimental or observational facility or mission?
Experimental or Observational project?	
If this project has multi-year	needs in support of a mission or DOE project, or has other special needs, please describe those here.
Special Requirements	







Codes Tab









Supporting Information Tab

Long ERCAP Project Description.pdf

Funding* Security* **Project Details** Resources* Codes Supporting Information Usage Agreement* Personnel List any additional HPC resources that have been awarded or are expected to be used to support this project. * Other HPC Additional image processing will be performed by an AWS pre-processing lambda function. Support Supply any other additional information you would like to be considered in support of this request. Additional Information To attach a supporting document, click the paperclip icon at the top of the page. When done, click the X to close the window. **Attachments** to 1 of 1 203 **≡** File name ≡ Content type □ Created by



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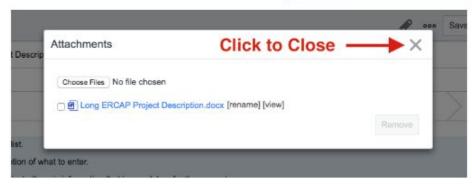
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application/pdf

Adding Attachments





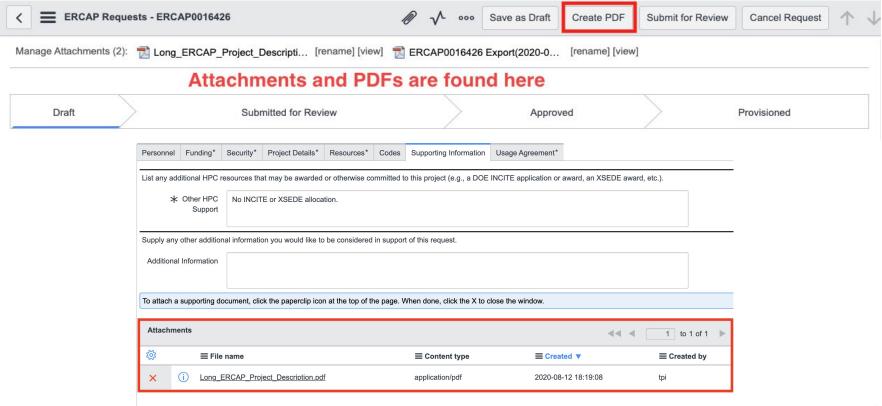








Create a PDF of a Request









Usage Audit Agreement

Personnel Funding* Security* Project Details* Resources* Codes Supporting Information* Usage Agreement

If this project is given a NERSC award, I agree to monitor the usage associated with it to ensure that, to the best of my ability, usage is for the project described here. Furthermore, if this is a continuing project, I confirm that I have audited the usage associated with this project, and to the best of my ability to determine, all usage was for the project specified.

By signing this application, I certify that the statements herein are true, complete and accurate to the best of my knowledge. I also agree to comply with any resulting terms if I accept an award. (https://www.nersc.gov/users/policies/). I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S.

Please enter your initials below to agree to these terms.

★ Usage
Agreement Initials



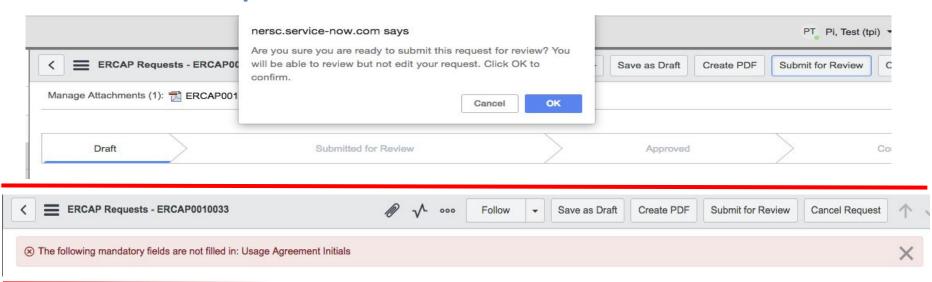
Code, Title 18, Section 1001)







Submit Request



Submitted Requests Under Review

Click the ERCAP number to view.

	ERCAP Number	Project Title	Label		Project	Allocation Year ▼	State	Updated		Updated by
(ERCAP00	Test project - AY	Test	ERCAP	testmpp		Submitted for Review	20:	09:57:54	bagwell-ADMIN







Questions?









Resources

- DOE/SC Program Managers
 - http://www.nersc.gov/users/accounts/allocations/doe-science-offices-programs-and-allocation-manage_ rs/
- ERCAP Application URL
 - https://ercap.nersc.gov
- NERSC Account Support
 - http://help.nersc.gov
 - o accounts@nersc.gov
- NERSC Allocation Support
 - http://help.nersc.gov
 - o <u>allocations@nersc.gov</u>
 - Zoom Office Hours Login Instructions https://www.nersc.gov/users/accounts/allocations/2023-call-for-proposals-to-use-nersc-resources/erca p-office-hours/









Thank You





