

ASCR Computational Facilities Allocation Policy

Summary

The primary objectives of the allocation policy for the high end computing resources provided by the Office of Advanced Scientific Computing Research (ASCR) in the Department of Energy's Office of Science(SC)are: to provide programmatic allocations at the National Energy Research Supercomputing Center (NERSC) for SC mission critical projects and to provide substantial allocations to the open science community through an peered process for a small number of high-impact scientific research projects at the Leadership Computing Facilities at Argonne National Laboratory and Oak Ridge National laboratory.

Allocation Programs

- *Innovative and Novel Computational Impact on Theory and Experiment (INCITE)*- Scientists from the national and international research community may request multi-year allocations for a majority of the computational resources at the Leadership Computing Facilities at Argonne National Laboratory and the Oak Ridge National Laboratory through the INCITE program (<http://www.sc.doe.gov/ascr/incite>). The call for INCITE proposals will be issued annually in mid-April and close in mid-July for allocations to begin the following January and will be posted at <http://hpc.science.doe.gov>. Successful proposals will describe high-impact scientific research in terms that can be subjected to peer review in the area of research, based on guidelines established in 10 CFR Part 605.10 which are posted at: <http://www.science.doe.gov/grants/605index.html>, as well as a general review that cross-cuts scientific disciplines. Applicants must also present evidence that in single runs they can make effective use of a major fraction of the processors of the high performance computing systems offered for allocation. Applicant codes must demonstrate readiness to run on the requested leadership computing system(s) at Oak Ridge and Argonne.
- *National Energy Research Scientific Computing (NERSC)*: Researchers working SC relevant projects may request allocations for the majority of the resources at NERSC through the Energy Research Computing Allocations Process (ERCAP). The NERSC call for proposals will be issued annually in August and close in October for allocations to begin the following January. For more information see www.nersc.gov/nusers/accounts/allocations/ercap/
- *ASCR Leadership Computing Challenge program*- Open to scientists from the research community in academia and industry, the ASCR Leadership Computing Challenge (ALCC) program allocates up to 30% of the computational resources at NERSC and the Leadership Computing Facilities at Argonne and Oak Ridge for special situations of interest to the Department with an emphasis on high-risk, high-payoff simulations in areas directly related to the

Department's energy mission, for national emergencies, or for broadening the community of researchers capable of using leadership computing resources. The call for proposals will be issued annually for single year proposals on October 1st. However, proposals may be submitted at any time during that fiscal year. Proposals submitted to the ALCC program will also be subject to peer review of scientific merit based on guidelines established in 10 CFR Part 605 and to computational readiness assessments by the Centers.

- *Center Reserves*- Up to 10% of the computational resources at NERSC and the Leadership Computing Facilities are available for allocation by the Directors of those facilities. These resources will be used to support pilot or startup projects, to support code scaling efforts, and for petascale computer science and performance metrics research. The allocation process for the Center reserves are described on the web pages of NERSC, the LCF at Argonne, and the LCF at Oak Ridge.

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