

*U.S. Department of Energy*



*Office of Science*

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# ASCR Facility Allocation Policy

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# Facility Allocation Policy

- Previous Policy
  - SC Director's (SC-1) Reserve: Up to 10% of allocable hours at ALCF, OLCF and NERSC
  - Facility Director Reserve: Up to 10% of allocable hours at Facility
  - SC Mission Computing: 70% NERSC
  - Innovative and Novel Computational Impact on Theory and Experiment (INCITE): Percent of allocable hours from SC facilities - 5% at PNNL; 10% at NERSC; 80% at OLCF and ALCF



# Rationale For Change

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- INCITE COV recommended that
  - the selection processes for leadership class and DOE capability class computing should be separated. A significant portion, but less than half, of INCITE computational resources should be allocated to high-end DOE capability-class computing using a similar INCITE-type process
  - ...consideration should be given to increasing the frequency of INCITE calls for proposals or at least staggering the annual call with other relevant calls such as ERCAP.
  - an appeals process for allocation decisions should be implemented
  - that in approximately five years a formal review panel be convened to assess the impact of the INCITE program.



# NEW ASCR Allocation Policy

- **Facility directors** will retain up to 10% of allocable hours to support pilot or startup projects, to support code scaling and for petascale computer science and performance metrics research.
- The majority ( 60-85%) of available processor hours on the Leadership Computing resources will be allocated through the **INCITE** program.
  - LCF Directors will be responsible for conducting joint reviews and select projects for their facility.
  - As part of the triennial on-site operational assessment of the respective LCF, a more in-depth review of the scientific accomplishments will be conducted by a subcommittee of **ASCAC**
- The majority of (60-85%) of available processor hours at **NERSC** will be for researchers working on SC-funded or SC relevant projects.
- The **ASCR Leadership Computing Challenge (ALCC)** will replace SC-1 Director's Reserve

*NERSC and PNNL will no longer participate in the INCITE program*



# ASCR Leadership Computing Challenge (ALCC)

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- ALCC provides one year allocations for
  - Scaling the applications selected by the ASCR advisory committee to meet ASCR's computational science annual PART metric
  - Out of cycle proof-of-concept projects for other SC offices and Federal agencies
  - Broadening the community of researchers from other SC offices or Federal agencies able to take advantage of DOE's leadership computing resources.
  - Meeting the national needs/priorities. For example, ALCC resources have been previously been provided to The U. S. Army Corps of Engineers for storm surge calculations after Hurricane Katrina.
- ALCC reserve
  - Between 5-30% of resources at NERSC and Leadership Computing Facilities at Argonne and Oak Ridge
  - Percentage will be established by the ASCR Associate Director with input from Facility Directors.
- Proposals requesting an allocation may be submitted to the ALCC program any time during the year,



# ASCR Allocation Policy Comparison

| <b>Previous Policy<br/>% of Allocable Hours</b>        | <b>Revised Policy<br/>% of Allocable Hours</b>                               |
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| Facility Director Reserve<br>10%                       | Facility Director Reserve<br>Up to 10%                                       |
| SC Director<br>Up to 10% of NERSC, ALCF and OLCF       | <b>ASCR Leadership Computing Challenge<br/>5-30% of NERSC, ALCF and OLCF</b> |
| SC Mission<br>70% NERSC                                | SC Mission<br><b>60-85% NERSC</b>  |
| INCITE –<br>5% PNNL<br>10% NERSC,<br>80% ALCF and OLCF | INCITE<br><b>60%-85% ALCF and OLCF</b>                                       |

- Clarify distinction between SC mission computing and INCITE
- Clarify responsibility for scientific excellence of work at LCFs
- Align LCFs with SC-wide approach to scientific facilities