Negative Balance Policy Proposal

1 Purpose

The Ohio Supercomputer Center provides cycles to both academic and industrial clients. The methods for gaining access to the systems are different for each user community.

Primarily, our users are Ohio-based and academic and the vast majority of our cycles will continue to be consumed by Ohio-based academic users. These cycles are allocated to academic PIs via an allocations process overseen by the Statewide Users Group, which evaluates applications via a peer review process; the Allocations Committee leads these efforts. The Allocations Committee grants cycles to projects. Once those cycles are depleted, the Committee needs a renewal application for that project in order for it to remain available for use.

This policy guidelines the actions taken to the project once all of the cycles are depleted.

2 Organizational Scope

This policy is Center-wide and applied to all academic clients at Ohio Supercomputer Center; classroom projects are exempt from this policy.

3 Definitions

For purposes of this policy, unless otherwise stated, the following definitions shall apply:

	Definition
Cycle	An RU. An RU is a resource unit. A resource unit is an aggregate measure of the use of CPU, memory, and file storage.

4 Policy Content and Guidelines

Align OSC operational practices with the institutional control desired by some fee-structure institutions. For institutions requiring PIs to demonstrate an ability to pay before submitting a proposal, the cap on how negative a project can go provides some assurance that the PI is not incurring massive charges they cannot pay while the proposal is in review, yet for all PIs the ability to compute while in review means the science can continue while the sometimes lengthy peer-review is completed. RU awards become a better indicator of a "maximum spend" amount, with the caveat that a project could still go negative since jobs already queued or running will still accrue RU charges.

4.1 Process

- Notify project PIs and project admins in advance of when their average consumption over a 60-day period suggests how soon they will go negative (45, 30, 15), and when they go negative (0, -1, -2, -7, -14, -21, -28, -35, -42, -49, -65, -80, -95, -120, -150, -180) via the Client Portal (my.osc.edu).
    - These notifications will be available on the dashboard of the Client Portal.

- Automatically restrict projects from submitting new jobs when their balance crosses zero into a negative total (calculated after daily job ingest into the accounting database).

- Allow projects to resume computation once their application proposal is in review.
    - Restrict project again once their negative balance reaches half of their previous award amount or half of their requested amount, whichever is smaller. Computation at that point will not be allowed again until a proposal is awarded by the SUG Allocations Committee along with appropriate institutional approvals, if applicable.

- Any new award will first offset any accrued negative balance and then provide additional RUs for future computation.

4.2 Exemptions

- Classroom projects.
- Commercial clients.
- Non-profit/Government clients.
- Condo clients.

5 Policy Sponsor and Contact

Ohio Supercomputer Center's HPC Client Services group is responsible for the policy process, policy formulation, and policy curation.

Contact OSC policy group at 1-800-686-6472, policy@osc.edu for additional information.