

Call for Projects Information and Instructions – 3rd Call for Projects
V2.0 (7 May 2024)

1. Overview

The National Supercomputing Centre (NSCC) Singapore will be revising its HPC resource allocation policy. While the new policy is under review and pending approval, NSCC would like to take this opportunity to provide an interim update.

This revision to the policy is to allow NSCC to allocate its HPC resources more effectively as a National Research Infrastructure (NRI) to support key National R&D programs and research projects to achieve significant and impactful economic outcomes for Singapore.

The current HPC resource allocation policy was crafted and enacted for ASPIRE 1. These resources were utilized by users from the four Founding Stakeholders, namely A*STAR, NTU, NUS, and SUTD. With the commissioning of ASPIRE 2A on July 1, 2023, and the anticipated launch of ASPIRE 2A+ in June-July 2024, a revised Resource Allocation Policy is deemed necessary.

This revision is also in tandem with the increasing demand for HPC resources from the National Programmes, Research Institutions, IHLs, the public sector, and SMEs/Startups.

The allocated compute resources will undergo bi-annual reviews to ensure alignment with the rapidly evolving landscape of HPC technology and evolving research needs.

Table 1 shows the % Recommended Resource Allocation currently under review by the NSCC Steering Committee.

S/N	Categories	Recommended Resource Allocation
1	RIE Funded Projects	60%
2	Young Investigator Seed Project	7.5%
3	HPC Research	7.5%
4	Training and Promotion	5%
5	SME/Startups	5%
6	Non-RIE Funded Projects	15%

Table 2 shows the proposed revision to the policy.

Details	Existing policy	Propose New Policy
Eligibility	NSCC Stakeholder Organisations – A*STAR, NTU, NUS, SUTD	RIE Funded Projects
Types of Projects Accepted	<ol style="list-style-type: none"> 1. National initiative 2. Government-funded 3. Industry collaboration 4. General project 	Projects eligible for the RIE Funded Projects designation are those identified by NRF/MOE as crucial to Singapore's economic competitiveness and societal needs. Typically, these projects receive support from a Programme Office (PO) and Implementing Agencies (IAs) and may have a steering committee or an equivalent body established.
How to Apply	NSCC Projects Portal (https://projects.nsc.sg/)	

Tentative Evaluation Criteria

Typically, they receive support from a Programme Office (PO) and Implementing Agencies (IAs) and may have a steering committee or an equivalent body established.

RIE Funded Projects

- a) Prioritization shall be based on complexity (the amount of HPC resources required to complete the computation).
- b) Approved RIE-funded projects with computing resources budgeted will be given higher priority.
- c) Programs that do not share data/results with other government agencies or RIE programs will be prioritized below those that will share.
- d) Allocation will be based on the PI's past performance (utilization of HPC resources in past projects or track records in managing projects with similar computational complexity).

For Project Renewal:

- a) Projects from the 1st Call that are ending June 30, 2024, should apply for a renewal application if you wish to continue your project after June 30, 2024. RIE Funded Projects rules apply.
- b) The usage of the previously approved resources must be at least 50%.
- c) Projects approved for renewal will be extended until September 1, 2024, or the commencement of the next resource allocation period, whichever occurs first.

2. Available Resources

ASPIRE 2A

2.1 Computational Resources:

- 1) CPU: Cray EX CPU Nodes (128 physical cores per node, total of 98,304 cores).

- 2) GPU: Cray EX 4-GPU Nodes (4 A100 GPUs per node, total of 256 cards).
- 3) AI System: Apollo 4/8-GPU Nodes (Total of 96 cards).

2.2 Storage Resources:

- 1) Total of 15 PB available for use.
- 2) Local storage of 50 GB will be allocated by default if there are no additional storage requirements.
- 3) Requests for additional storage can be submitted after the project starts.
- 4) The data will be retained for one month after the project ends.

More information about ASPIRE 2A and available application and software can be found at our website¹, and the following documents:

- [ASPIRE 2A Architecture and Specifications²](#)
- [ASPIRE 2A Software List³](#)

3. Eligibility

The eligibility of the applicants for this call is as follows:

3.1 The applicant of the project (hereafter, “Project Applicant”)

- 1) The Project Applicant should be the Principal Investigator (PI) or the supervisor of the project. If required, the PI may authorise a team member to submit the application on their behalf.
- 2) The Project Applicant must have a valid NSCC account.
- 3) The Project Applicant will be responsible for all correspondence of the project, including but not limited to the receiving of notifications from NSCC, managing of project membership and requests for changes in resources.

3.2 Members of the Project

- 1) Users can be added to the project as a member with the approval of the Project Applicant or PI.
- 2) The users must have an existing NSCC user ID.

¹ <https://help.nscg.sg/softwarehardware-information/>

² https://help.nscg.sg/wp-content/uploads/ASPIRE-2A-Architecture-and-Specifications_Sep-2022.pdf

³ <https://help.nscg.sg/wp-content/uploads/NSCC-ASPIRE-2A-Software-List.pdf>

3.3 Project

- 1) The project must be approved by the organisation (acknowledged by the supervisor or manager) of the Project Applicant.
- 2) For renewal projects, unutilised resources from the previous cycle will not be brought forward.

4. Procedures for Application

The application must be submitted by the Project Applicant:

- 1) Login to the Projects Portal⁴.
- 2) For new projects:
 - (a) Click on “Create Project to create a new application.
- 3) For renewal projects:
 - (a) Click on “Renew” beside the project that you would like to Renew. Your project will be changed to the *Draft* status.
 - (b) Click “Edit” to modify your application.
- 4) Fill in all the required details. You may refer to the Guideline for Application Form⁵.
- 5) Submit the completed application form. Your submission should be changed to the *Submitted* status.
- 6) After the closing of the application period, the resources allocation committees will review the applications.
- 7) Once the review process is completed, the Project Applicant will be informed of the results via email.
- 8) The project will begin on the start date of the project cycle, as indicated in the approval email.

⁴ <https://projects.nscg.sg/>

⁵ https://help.nscg.sg/wp-content/uploads/Guideline-for-Application-Form_Call-for-Research-on-ASPIRE-2A_v2.0_final.pdf

5. Approval of Projects

5.1 Review Process

Submitted applications will be reviewed by the Resources Allocation Committee.

5.2 Notification of Results

The results of the application will be sent to the Project Applicant via email.

5.3 Handling of Personal Information

All personal information such as name, email address, and contact number that are submitted will be used by NSCC to facilitate the processing of the application and the subsequent use of the system.

5.4 Disclosure of Application Form

By applying to this call, users agree to the disclosure of the application forms and all the project details to NSCC.

6. Deliverables Report

Deliverables reports must be submitted to NSCC at the end of the project cycle.

6.1 Deliverables Report

The deliverables must be updated via the Projects Portal within 60 days from the end of the project cycle.

6.2 Acknowledgement and Citation

All academic journal or conference papers or reports that have leveraged NSCC's resources shall acknowledge and cite NSCC with the following:

"The computational work for this article was (fully/partially) performed on resources of the National Supercomputing Centre (NSCC), Singapore (<https://www.nscg.sg>)."

6.3 Presentation

Selected users may also be required to partner with NSCC to present a talk, article, paper or poster for NSCC's organised events (e.g., SupercomputingAsia conference, use case studies or other occasions where NSCC has a presence).

6.4 Disclosure of Information

The following information may be publicly disclosed as required by NSCC for the promotion of HPC in Singapore.

Project ID, project name, Project Applicant's name, organisation, and awarded resources.

7. Acceptable Use Policy (AUP)⁶

All users of NSCC's resources must agree to the terms as stated in the AUP. If there is a breach of the AUP, NSCC reserves the right to revoke the user account and/or the awarded resources.

8. Others

8.1 Withdrawal of the Project

The Project Applicant may inform projects-admin@nsc.sg if they wish to withdraw the project within 10 days after the start of the project cycle.

8.2 Modifications to Members of the Project

The Project Applicant can submit a request to projects-admin@nsc.sg to add/remove members from the project at any time during the project cycle.

If there is a need to change the Project Applicant, the request must be sent to projects-admin@nsc.sg with the acknowledgement of the PI.

8.3 Requests for Additional Resources

The Project Applicant can submit a request to projects-admin@nsc.sg for requests of additional resources. This will be subjected to the availability of the resources and approval by the Resources Allocation Committees.

8.4 Adjustment of Resources

The Project Applicant can submit a request to projects-admin@nsc.sg to request for an adjustment of resources for the project within the first 4 months, before the end of each 6-month period of the project cycle.

E.g., The 6-month periods will be Jul-Dec and Jan-Jun, hence users must request for adjustment before end-October and end-April.

⁶ <https://help.nsc.sg/aup/>

9. Contact Information

E-mail: projects-admin@nsc.sg