

Current NERC Policy on Access to High Performance Computing (HPC)

Joint NERC/Met Office Facility - MONSooN

1. NERC Research Grant applicants wishing to use JWCRP/MONSooN should follow 7-12 below and following receipt of funding refer to the MONSooN application procedure: <http://www.jwcrp.org.uk/infrastructure/monsoon.asp>

The National Service - HECToR

2. NERC scientists currently have access to the Research Council's computing facility, HECToR, a CRAY machine, housed at Edinburgh, together with a support service. The service is managed on behalf of NERC and BBSRC by EPSRC. There are regular upgrades to the service in order to keep abreast of technology changes. NERC is currently allocated 22% of the total user capacity of HECToR. Further details can be found at <http://www.hector.ac.uk/>
3. Supercomputing is an expensive and highly sought after commodity. NERC community access is overseen by the NERC HPC Steering Committee (HPC SC) whose role is to perform a traceable, auditable and evidence based allocation of NERC's share.

Management of Access

4. NERC HECToR users are allocated to one of four HPC consortia, each led by a member of the academic community:
 - Atmospheric & Polar (NCAS)
 - Mineral Physics (UCL)
 - Oceanography (NOCS)
 - Shelf Seas (POL/NOC)

Contact details can be found here:

<http://www.nerc.ac.uk/research/sites/facilities/hpc/applying.asp>

5. Consortia leaders request an annual consortium 'core' number of allocation units (AUs) plus an amount for each funded grant in their consortium. All requests should be submitted to, and are subject to approval by, the HPC SC.

How to Apply

Research Grants/Responsive Mode Application Procedure

When applying for NERC Research Grants which will need HPC:

6. **Prior** to submission of their NERC Research Grant Proposal (Je-S) form, applicants must **contact** the relevant HPC consortia leader (see above) to discuss their requirement, should funding be approved.

7. **It is essential** that applicants state on the Je-S form under **Research Council Facilities** that access to HPC will be required.
8. This option is situated within the section “Summary of Resources Required for Project” where there is an option to select “Add New Research Facility”. Once selected, choose “High Performance Computing (HPC)” from the drop down list. An option to describe “Proposed Usage” will appear. Please indicate: ‘HECToR’ or ‘MONSooN’ or ‘HECToR/MONSooN’. If HECToR, please provide an estimate of the total request in Allocation Units (AUs).
9. NERC’s total HECToR allocation is currently (2011/12) 527 MAU. Any request exceeding 5% of this (currently 26MAU) should be accompanied by the HPC application form.
<http://www.nerc.ac.uk/research/sites/facilities/hpc/applying.asp>
10. If applicants tick the box which says “Research Council Facilities are not relevant to this application” the proposal will be submitted to NERC with the following statement: “**Research Council Facilities are not relevant to this application**”. In this case, time on HECToR (or MONSooN) **cannot be guaranteed**
12. A brief justification for use of HPC should be included within the “Justification of Resources” section of the research grant application (JeS form).
13. It is not necessary to provide cost estimates for time on HECToR or MONSooN. These facilities are paid centrally by NERC and provided free at the point of use for NERC funded grants.
14. It is not currently necessary to submit a separate HPC application form (Facility Pro forma = HPC New Form) together with your NERC Research Grant Application/Je-S form, unless your request is a Large Grant application or the request exceeds 26MAU (see 9 above).

Following notification of receipt of an award:

15. A completed HPC NEW form, located at <http://www.nerc.ac.uk/research/sites/facilities/hpc/applying.asp> must be submitted to hpc@nerc.ac.uk
Please help us by including the NERC reference number. The form will be presented at the next HPC SC meeting for approval of the AUs requested in the first year of the grant.

Large Grants Procedure

16. In addition to 6-11 and 14 above, Large grant applications must submit the HPC New Form at the same time as the JeS form.
17. Please also refer to the Research Grants Handbook for full details of requirements: <http://www.nerc.ac.uk/funding/application/researchgrants/>

18. To note: No funds are awarded for use of HECToR (or MONSooN) because the facilities are paid centrally by NERC and are free at the point of use.

Assessment of HPC Requests – HECToR only

19. Completed HPC NEW applications will be peer reviewed by the NERC HPC Steering Committee at the next of their bi-annual meetings. Resources are approved for the first year only.
20. For each subsequent year of usage, users must update their request by submitting a **Continuation Form** for each grant utilising HPC. These are reviewed at the annual spring meeting of the HPC Steering Committee. Users will be contacted about this.
21. The Steering Committee require a separate continuation form for each grant, because it is important for resource allocation purposes and to help monitor outputs associated with HPC investment.
22. Please note that the HPC Steering Committee may make adjustments to the amount requested/approved, or request further information/justification for the request.

Jointly Funded Awards

23. For awards funded by two or more Research Councils, the HPC allocation will be discussed by the relevant councils. In general, the provision will be split in the same proportions as the funds. Assessment and allocation procedure will follow that of the major funder.

Access to HECToR by Non NERC Funded Grants

24. There is provision for access by non-NERC funded scientists which is dealt with by EPSRC as the Research Council managing agents for HECToR. Access via international projects (DEISA/PRACE/HPC Europa2) is managed by EPSRC/EPCC, depending on the circumstances. Further information can be found at: <http://www.hector.ac.uk/howcan/admin/>
25. To reduce risk of disappointment, potential HPC users not directly funded by NERC, particularly those applying for European Union funds, should note that NERC does not expect to fund the costs of their HPC. For applications within the NERC remit, Research Council 'Partner' charge rate can be applied.

Acknowledgement

26. NERC expects users of HPC to formally acknowledge HECToR/MONSooN/JWCRP on all publications resulting from such use, including after a lapse of time. Please see Paragraph 316 of the Research

Grants Handbook:

<http://www.nerc.ac.uk/funding/application/researchgrants/grantshandbook.doc>

Further Queries

27. Please address your more general queries to hpc@nerc.ac.uk

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