**NERC High Performance Computing (HPC)
ARCHER2 Access: New Application Form Guidance Notes**

1. Researchers requiring access to ARCHER2 should submit the HPC NEW form at the beginning of their project. If the request exceeds 500 kCU in any one year, the completed form must accompany the Je-S application, providing very strong justification for the request. Please state in the Je-S facility free text box that the HPC form is submitted. Please also send this form to hpc@nerc.ukri.org. Other applicants should submit this form only after NERC funding has been agreed.

2. A light touch HPC Continuation form should be completed for each subsequent year of the project (By end February, for review at the HPC SC spring meeting).

3. The HPC application form must be submitted to hpc@nerc.ukri.org once funding of the NERC award has been agreed. As with other resources, access to compute time must be fully justified. The forms will be forwarded to the NERC HPC Steering Committee for evaluation. Unless the need for access is urgent, the request will be assessed at either the spring or autumn meeting of the committee.

4. The actions of the committee will vary depending on the nature of the application being made.

Strategic Research, Discovery Science, Innovation, Studentships, Fellowships, Cross Council Projects

5. Applications will be peer reviewed by the committee, which will check the feasibility of the HPC work and, if appropriate, suggest a moderation of resources. The committee will provide advice to the grants moderating panels or other steering committees on request.

National Capability

6. National Capability requests in excess of 500 kCU in any one year which have not been through a formal review process are now subject to a review by the appropriate body, before being considered by the committee. The committee will not engage in the peer review of these applications, but will schedule the resource needs in context of the wider NERC HPC user-demand have (a capacity/planning role).

Other funding:

7. Users who are requesting HPC resource for science in the NERC remit, but not funded by NERC, should note that NERC does not expect to meet the cost for access to the national services. The committee will tension these applications against other calls on the resources and make allocations as appropriate.   See policy for further details.

Form Section Guidelines

Section 1

- <u>Co-applicants:</u>   The names and emails of all co-applicants must be stated. Their respective roles - with indications of time commitments, if possible – should also be stated under role in project.
- <u>HPC Contact</u>**:**   This will be the person to which all correspondence regarding the project will be addressed to, for example, for the completion of the HPC Continuation form each year. Please help us by completing this.

Section 2

2.1   <u>Title</u>:   Applications associated with grant proposals should carry the project title of the grant.

2.2   <u>Funding source</u>: Please ensure that the NERC grant reference number and research programme (if relevant) or funding mechanism are stated. Please indicate if use of research council facilities was stated on the Je-S form. Please specify if other funding is relevant.

2.3   <u>Proposed Start Date/Expected duration</u>:   Please state the start and end dates of the grant and anticipated time needed to complete the stated HPC work, in months.

2.4   <u>Technical Summary</u>:   A short (150 words) summary of the content of the project as written for a **specialist** in the field.

2.5   <u>Project Summary</u>: Notes are provided on the application form. The Project Summary should be written for a specialist in the field. Grant applications' Cases for Support are not acceptable - the summary is specific to the HPC focus of the study and **not** the underpinning science described in the grant application. Note page limit.

Section 3

3.3   <u>Resource</u>:   The committee provides a firm allocation for the first year only. The HPC year runs from 1 April-31 March. For the first year, please state how many CU/kCU will be needed up to the next 31 March. Please provide the calculation used to determine this amount. Estimates should be provided for following years. Please make clear if the first year's resource is for 6 months or 1 year.

3.4   In order to maximise use, over allocations are made, therefore, not all the CU allocated or estimated for future years is guaranteed.

3.5   <u>Storage</u>: Please note that NERC now requires you to estimate your storage requirements over the life of the project on JASMIN, as applicable.

Section 4

4.1   <u>Runs/simulations planned</u>:   Previous experience and history of run results and/or rough calculations should be stated to justify the number of simulations/runs being requested. Expected scaling should be stated if the model is not being run on a new machine.

4.2 <u>HPC Training/support required</u>:   Training or technical support needs should be flagged, giving indications of likely staff efforts (i.e. 'person hours') and the nature of the training involved.

Section 5

5.1. It is increasingly important for NERC to capture outputs and impacts of investments. Please provide publication/outputs/impacts details as specified.

5.2. Please send the form to hpc@nerc.ukri.org

Contacts for advice below

Further information or guidance:

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Updates

Jan/June/Nov 2012
May/Sept 2014
Update NC review limit (6) Feb2015
Update AU limits/align with form updates April 2015
Insert note for strong justification and note on over allocation Sept 2015
Amend 1 (text box) and 3.3 clarify length 'first' year Dec 2015
Add NEXCS/Kay Aug 2017
Main update: 'allocation' to 'compute' unit CC/FC Aug 2021