

# REQUEST FOR ADDITIONAL RESOURCES IN THE CURRENT YEAR FOR AN EXISTING SPECIAL PROJECT

Please submit the completed form via <https://www.ecmwf.int/en/support>

**MEMBER STATE:** .....The Netherlands.....

**Principal Investigator<sup>1</sup>:** .....Jason E. Williams.....

**Affiliation:** .....KNMI.....  
.....  
.....

**Address:** .....Utrechtseweg 297, 3731 GA De Bilt.....  
.....  
.....

**Project title:** .....EC-EARTH-V3 HYWAY.....  
.....

**Project account:**                **SPNLWILL**

Additional computing resources requested for year		2025
High Performance Computing Facility	[SBU]	6000000
Total DHS Data storage capacity	[GB]	3000
<b>EWC resources</b>		
Number of vCPUs	[#]	
Total memory	[GB]	
Storage	[GB]	
Number of vGPUs <sup>3</sup>	[#]	

*Continue overleaf*

---

<sup>1</sup> The Principal Investigator is the contact person for this Special Project  
This form is available at:  
<http://www.ecmwf.int/en/computing/access-computing-facilities/forms>  
Jan 2024

## **Technical reasons and scientific justifications why additional resources are needed**

In this project it was proposed that the existing EC-EARTH v3 model would be used for an EU funded project concerned with atmospheric impacts of transitioning to the Hydrogen economy. A significant amount of technical work was performed in order to achieve the agreed output in the project which was not accounted for in the original submission, after it was found that HDF4 output should be written out as NETCDF4. Moreover, updates to the chemistry and reaction rates were also performed which consumed resources. To date 60% of the resources have been consumed without completing the production runs for the project, and further updates are needed before the end of the year associated with including H<sub>2</sub> emissions. Therefore we request additional resources in order to complete the requirements of the project.