# Monthly Reporting

## Report from 01 December 2023 to 31 December 2023

#### Report for Resource Pool Archer2 on archer2

A total of 4,350,912 CUs were available during this period.

#### **Use and Allocations (by Project)**

In the following table, Charged refers to usage which was charged against the project Allocation; whereas Used refers to usage including uncharged time. Uncharged time can arise from use of the Low Priority queue and/or during times when charging is disabled on the service.

The (Allocation) column is the time allocated to the project, scaled according to the reporting period and shown as a fraction of the available resources. If this report period is a sub-period of the Allocation period then the SAFE calculates the Allocation for this sub-period based on a linear spend profile of the total Allocation. If the usage for a project is not linear across the full Allocation period the the Use can be larger than the extrapolated Allocation.

roject	Project	Number	Charged	Charged	Used CUs	Utilisation	Allocated	Allocation
	Class	of Jobs	CUs	Utilisation			CUs	
e645	Leadership	3	576.0	0.01%	576.0	0.01%	21,683.1	0.50%
	Awards		- 100	0.000		0.000/		
e760	Leadership Awards	75	2,429.9	0.06%	2,431.6	0.06%	1,388.1	0.03%
e786	Leadership Awards	13	121.5	0.00%	121.5	0.00%	9,706.6	0.22%
e787	Leadership Awards	0	0.0	0.00%	0.0	0.00%	447.1	0.01%
e683	Pioneer Projects	863	9,407.3	0.22%	9,407.3	0.22%	5,053.2	0.12%
e685	Pioneer Projects	2	0.0	0.00%	28.1	0.00%	1,080.0	0.02%
e686	Pioneer Projects	115	5,308.4	0.12%	5,496.5	0.13%	7,007.1	0.16%
e687	Pioneer Projects	71	1,630.6	0.04%	1,630.6	0.04%	21,964.6	0.50%
e688	Pioneer Projects	138	20,774.2	0.48%	20,782.7	0.48%	33,477.5	0.77%
e689	Pioneer Projects	26	63,559.5	1.46%	69,521.5	1.60%	23,244.7	0.53%
e690	Pioneer Projects	0	0.0	0.00%	0.0	0.00%	9,154.9	0.21%
e691	Pioneer Projects	24	20,651.9	0.47%	24,716.5	0.57%	25,759.2	0.59%
e692	Pioneer Projects	36	14,065.2	0.32%	14,065.2	0.32%	13,451.4	0.31%
e731	Pioneer Projects	2,114	33,356.7	0.77%	33,378.8	0.77%	21,055.0	0.48%
e744	Pioneer Projects	67	6,895.6	0.16%	6,895.6	0.16%	11,796.3	0.27%
e808	Pioneer Projects	318	24,998.5	0.57%	25,066.4	0.58%	15,653.3	0.36%
e809	Pioneer Projects	0	0.0	0.00%	0.0	0.00%	7,866.4	0.18%
e810	Pioneer Projects	323	84,501.2	1.94%	86,257.3	1.98%	35,398.6	0.81%
e812	Pioneer Projects	16	482.1	0.01%	482.1	0.01%	13,852.2	0.32%
e813	Pioneer Projects	204	22,302.4	0.51%	22,303.3	0.51%	23,364.2	0.54%
e814	Pioneer Projects	76	13,266.5	0.30%	13,432.9	0.31%	7,947.0	0.18%

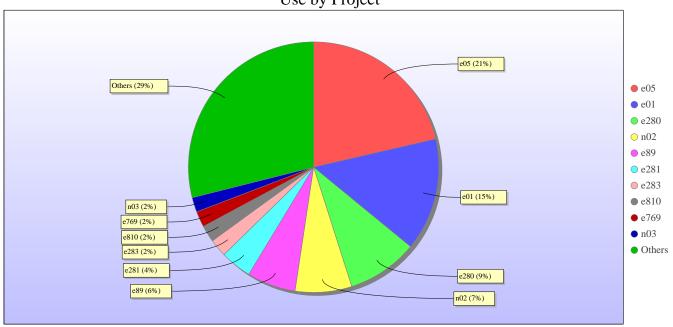
Project	Project Class	Number of Jobs	Charged CUs	Charged Utilisation	Used CUs	Utilisation	Allocated CUs	Allocation
e815	Pioneer Projects	147	4,670.2	0.11%	4,670.2	0.11%	20,980.1	0.48%
e817	Pioneer Projects	60	62,025.2	1.43%	64,772.7	1.49%	77,111.9	1.77%
c01	Class1a	1,071	15,681.5	0.36%	15,681.8	0.36%	22,743.3	0.52%
e348	Class1a	6,205	9,216.5	0.21%	9,253.5	0.21%	20,283.6	0.47%
e575	Class1a	54	1,445.3	0.03%	1,445.3	0.03%	677.6	0.02%
e609	Class1a	1,369	28,057.9	0.64%	28,199.2	0.65%	14,092.1	0.32%
e643	Class1a	366	13,610.1	0.31%	13,610.1	0.31%	8,422.0	0.19%
e647	Class1a	139	2,073.7	0.05%	2,073.7	0.05%	14,786.1	0.34%
e694	Class1a	0	0.0	0.00%	0.0	0.00%	2,832.7	0.07%
e696	Class1a	49	2,559.4	0.06%	2,559.5	0.06%	1,259.7	0.03%
e697	Class1a	2	401.9	0.01%	401.9	0.01%	10,966.1	0.25%
e700	Class1a	0	0.0	0.00%	0.0	0.00%	895.4	0.02%
e701	Class1a	0	0.0	0.00%	0.0	0.00%	2,779.3	0.06%
e705	Class1a	9	2,171.1	0.05%	2,253.9	0.05%	3,757.0	0.09%
e707	Class1a	54	7,638.6		7,638.6	0.18%	9,556.0	0.22%
e710	Class1a	63	1,292.1	0.03%	1,292.1	0.03%	4,259.2	0.10%
e712	Class1a	88	43,967.3		43,967.3	1.01%	17,036.9	0.39%
e720	Class1a	341	23,366.7	0.54%	23,503.6	0.54%	22,565.4	0.52%
e721	Class1a	0	0.0	0.00%	0.0	0.00%	2,811.1	0.06%
e728	Class1a	127	1,776.0	0.04%	1,776.0	0.04%	2,405.8	0.06%
e751	Class1a	72	15,275.3		15,275.3	0.35%	5,049.8	
e752	Class1a	17	624.5		624.5	0.01%	3,577.7	0.08%
e758	Class1a	4	1,340.2	0.03%	1,341.0	0.03%	3,344.7	0.08%
e763	Class1a	0	0.0		0.0	0.00%	1,010.6	
e767	Class1a	100	2,473.1	0.06%	2,579.2	0.06%	5,929.0	0.14%
e769	Class1a	293	70,356.4	1.62%	81,280.0	1.87%	28,966.3	0.67%
e770	Class1a	1	0.3		0.3	0.00%	6,594.3	0.15%
e793	Class1a	36	40,932.7	0.94%	40,932.7	0.94%	31,627.3	
e820	Class1a	34	393.7	0.01%	393.7	0.01%	5,185.3	0.12%
e821	Class1a	0	0.0		0.0	0.00%	3,558.2	0.08%
e838	Class1a	297	17,577.3		17,647.5	0.41%	6,814.7	0.16%
ec110	Class1a	0	0.0	0.00%	0.0	0.00%	1,185.8	
e01	Consortia	1,661	550,755.7	12.66%	579,209.6		415,286.9	
e05	Consortia	21,745	816,479.9		852,026.9	19.58%	936,836.4	21.53%
e89	Consortia	14,424	247,085.0		250,305.7	5.75%	374,273.9	
e280	Consortia	18,031	362,128.9	8.32%	364,345.6	8.37%	253,199.0	5.82%
e281	Consortia	2,536	156,493.1	3.60%	160,871.1	3.70%	110,686.8	
e283	Consortia	4,145	90,795.4	2.09%	91,093.9	2.09%	67,047.1	1.54%
e772	Consortia	1,336	48,284.1	1.11%	48,759.6	1.12%	75,959.7	1.75%
e773	Consortia	289	37,242.9		40,338.5		29,992.9	
	Pump Priming	0	0.0		0.0	0.00%	0.3	
	Pump Priming	431	78.8		78.8	0.00%	294.6	
	Pump Priming	0	0.0		0.0	0.00%	305.9	0.01%
	Pump Priming	4	1,458.5		1,458.5	0.03%	647.1	0.01%
	Pump Priming	0	0.0		0.0	0.00%	670.1	0.02%
	Pump Priming	62	2,309.6		2,310.4	0.05%	2,003.4	0.05%
	Pump Priming	262	3,122.1	0.07%	3,140.8	0.07%	673.8	
	Pump Priming	0	0.0		0.0	0.00%	628.2	0.01%
	Pump Priming	18	55.2		55.2	0.00%	670.7	0.02%
	Pump Priming	5	21.2		21.2	0.00%	677.6	
	Pump Priming	59	912.2		915.3		677.6	
	Pump Priming	35	118.7	0.00%	118.7	0.00%	582.2	0.01%
i28	Industrial	0	0.0		0.0	0.00%	113.2	0.00%
ta124	Training	17	17.9		17.9	0.00%	19.1	0.00%
ta125	Training	7	0.0	0.00%	0.0	0.00%	19.1	0.00%
ta126	Training	4	0.0		0.0	0.00%	31.8	
ta127	Training	255	849.2	0.02%	852.8	0.02%	660.6	
	Access to HPC	29	3,394.1	0.02 %	3,394.1	0.02 %	5,390.3	
	Access to HPC	129	12,093.0		12,093.0	0.28%	3,779.8	
	Access to HPC	127	773.4		773.4	0.02%	3,117.2	
		121	110.4	0.02/0	,,,,,	0.02/0	0,117.2	0.07 /0

Project	Project	Number	Charged	Charged	Used CUs	Utilisation	Allocated	Allocation
	Class	of Jobs	CUs	Utilisation			CUs	
	Access to HPC	256	48,826.4	1.12%	49,332.8		12,234.6	
	Access to HPC	0	0.0	0.00%	0.0		1,694.5	
	Access to HPC	626	5,802.4	0.13%	5,817.0	0.13%	13,629.5	0.31%
	Access to HPC	0	0.0		0.0		0.1	0.00%
	Access to HPC	502	47,658.3	1.10%	47,756.8	1.10%	26,019.7	0.60%
	Access to HPC Access to HPC	5 635	1,584.6 19,157.0		1,584.6 19,157.8		7,438.3 10,510.7	0.17% 0.24%
	Access to HPC	44	6,829.9		7,132.4	0.44 %	16,844.0	0.24%
	Access to HPC	73	8,914.6		8,914.6		6,218.8	
	Access to HPC	3	900.7	0.02%	900.7	0.02%	7,579.8	
	Access to HPC	71	1,407.1	0.03%	1,407.1	0.03%	1,012.8	
	Access to HPC	41	8,823.7	0.20%	8,823.7	0.20%	5,939.9	0.14%
e781	Access to HPC	3	0.0	0.00%	0.0	0.00%	3,368.8	0.08%
e782	Access to HPC	9	41.1	0.00%	41.1	0.00%	795.5	0.02%
	Access to HPC	0	0.0	0.00%	0.0	0.00%	11,171.1	0.26%
	Access to HPC	73	28,646.7	0.66%	29,261.9	0.67%	11,400.0	0.26%
	Access to HPC	171	4,860.1	0.11%	4,879.6	0.11%	8,851.2	0.20%
	Access to HPC	88	28,510.0		29,272.4	0.67%	6,737.6	
	Access to HPC	70	420.4	0.01%	420.4	0.01%	6,791.5	
	Access to HPC	75 5	259.7 0.1	0.01%	259.7 0.1	0.01%	5,053.2 842.2	0.12%
	Access to HPC Access to HPC	5	0.1	0.00% 0.00%	0.1	0.00% 0.00%	5,053.2	0.02% 0.12%
	Access to HPC	100	14,537.2		14,537.2	0.00%	14,031.1	0.12%
	Access to HPC	12	8,644.6		8,644.6	0.33 %	4,129.5	
	Access to HPC	15	11,984.8		11,984.8	0.28%	2,263.8	0.05%
	Access to HPC	136	16,518.3		16,542.6	0.38%	11,117.0	0.26%
	Access to HPC	0	0.0		0.0	0.00%	760.6	
e807	Access to HPC	0	0.0	0.00%	0.0	0.00%	1,643.2	0.04%
	Access to HPC	12	1,893.9		1,893.9	0.04%	6,164.0	
e827	Access to HPC	0	0.0	0.00%	0.0	0.00%	2,364.1	0.05%
	Access to HPC	1	1.5		1.5		272.7	0.01%
	Access to HPC	0	0.0	0.00%	0.0	0.00%	2,307.7	0.05%
	Access to HPC	0	0.0		0.0	0.00%	29,715.2	0.68%
	Access to HPC	0	0.0		0.0		3,011.4	
EPSRC Total	Canaantia	84,807	3,307,021.4		3,413,590.6	78.46%	3,208,613.8	73.75%
n01	Consortia Consortia	4,782 61,502	71,423.7 286,709.2		72,511.6 290,853.6	1.67% 6.68%	107,398.9 843,352.5	
n03	Consortia	1,970	73,103.3		74,982.7	1.72%	167,704.9	
NERC Total	Consonia	68,254	431,236.2	9.91%	438,347.9	10.07%	1,118,456.3	25.71%
b19	Class1a	212	7,306.6		7,306.6		3,116.6	
BBSRC Total	Oldoo Td	212	7,306.6		7,306.6		3,116.6	
e756	Leadership	86	243.6		243.6		1,694.4	
	Awards						•	
e723			71,422.7	1.64%	71,664.6		38,549.2	0.89%
e738	Class1a		0.0		0.0		16,844.0	
UKRI Total		5,446	71,666.3		71,908.2		57,087.6	
ecseab03		0	0.0		0.0		48.2	
ecseaf01		4	2.6		2.6		80.4	
ecseaf03		0	0.0		0.0		42.7	0.00%
ecseaf04 ecseaf06		0	0.0		0.0 0.0	0.00% 0.00%	65.1 58.9	0.00% 0.00%
ecseag02		11	2.1	0.00%	2.1	0.00%	71.8	
ecseag02		27	0.6		0.6		43.1	0.00%
ecseag08		0	0.0		0.0		58.4	
ecseag09		0	0.0		0.0		62.7	0.00%
ecseah01		0	0.0		0.0		101.8	
ecseah03		0	0.0		0.0		120.5	
ecseah05	eCSE	0	0.0		0.0	0.00%	54.4	0.00%
ecseah06		0	0.0		0.0		109.6	
ecseah10		0	0.0		0.0		107.6	
ecseah11		0	0.0		0.0		73.2	
ecseah12		0	0.0		0.0		95.9	
ecseai03	eCSE	0	0.0	0.00%	0.0	0.00%	76.3	0.00%

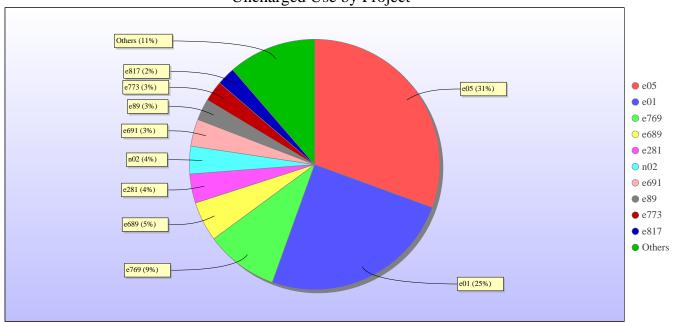
Project	Project Class	Number of Jobs	Charged CUs	Charged Utilisation	Used CUs	Utilisation	Allocated CUs	Allocation
ecseai04	eCSE	0	0.0	0.00%	0.0	0.00%	104.0	0.00%
ecseai05	eCSE	0	0.0	0.00%	0.0		124.6	
ecseai09	eCSE	0	0.0	0.00%	0.0	0.00%	105.1	0.00%
ecseai10	eCSE	0	0.0	0.00%	0.0	0.00%	95.9	0.00%
ecseai12	eCSE	0	0.0	0.00%	0.0	0.00%	58.9	0.00%
ecseaj02	eCSE	0	0.0	0.00%	0.0	0.00%	59.3	0.00%
ecseaj03	eCSE	0	0.0	0.00%	0.0	0.00%	108.8	0.00%
eCSE Total		42	5.2	0.00%	5.2	0.00%	1,927.0	0.04%
d35	Research	4	1.2	0.00%	1.2	0.00%	424.7	0.01%
d011	Research	76	6.7	0.00%	6.7	0.00%	175.6	
d114	Research	0	0.0	0.00%	0.0	0.00%	5,226.3	0.12%
d137	Research	0	0.0	0.00%	0.0	0.00%	1,323.5	0.03%
d142	Research	0	0.0	0.00%	0.0	0.00%	4,189.2	0.10%
d175	Research	0	0.0	0.00%	0.0	0.00%	1,880.8	0.04%
d183	Research	0	0.0	0.00%	0.0	0.00%	177.9	0.00%
d193	Research	60	20.5	0.00%	20.5	0.00%	226.3	0.01%
d435	Research	196	1,429.5	0.03%	1,429.5	0.03%	1,270.5	0.03%
d437	Research	149	2,648.1	0.06%	2,648.1	0.06%	423.5	0.01%
i246	Research	45	0.0	0.00%	763.1	0.02%	0.1	0.00%
r07	RDF: Pilot	0	0.0	0.00%	0.0	0.00%	50.8	0.00%
d195	Industrial	0	0.0	0.00%	0.0	0.00%	83.1	0.00%
d433	Industrial	0	0.0	0.00%	0.0	0.00%	84.7	0.00%
i01	Industrial	0	0.0	0.00%	0.0	0.00%	714.1	0.02%
i18	Industrial	63	288.6	0.01%	288.6	0.01%	1,518.9	0.03%
i21	Industrial	0	0.0	0.00%	0.0	0.00%	8.5	0.00%
i26	Industrial	13	47.4	0.00%	47.4	0.00%	169.4	0.00%
i219	Industrial	0	0.0	0.00%	0.0	0.00%	12.0	0.00%
i239	Industrial	881	2,881.3	0.07%	2,881.3	0.07%	1,272.1	0.03%
i241	Industrial	57	840.3	0.02%	840.3		2,348.0	0.05%
i242	Industrial	5	576.1	0.01%	576.1	0.01%	567.1	0.01%
i243	Industrial	0	0.0	0.00%	0.0	0.00%	389.1	0.01%
i244	Industrial	390	285.6	0.01%	285.6	0.01%	390.4	0.01%
i247	Industrial	0	0.0	0.00%	0.0	0.00%	998.8	
i248	Industrial	76	883.9	0.02%	883.9	0.02%	6,510.4	0.15%
m23oc	Training	0	0.0	0.00%	0.0	0.00%	563.0	0.01%
m23ol	Training	5	0.2	0.00%	0.2	0.00%	375.3	0.01%
m23ext	Training	0	0.0	0.00%	0.0	0.00%	105.8	0.00%
mdisspt	Training	9	0.2	0.00%	0.2	0.00%	184.5	0.00%
m23exts1	Training	0	0.0	0.00%	0.0		111.5	
ta084	Training	0	0.0	0.00%	0.0	0.00%	763.8	0.02%
ta085	Training	0	0.0	0.00%	0.0	0.00%	38.3	0.00%
ta086	Training	0	0.0		0.0		19.1	
ta087	Training	0	0.0	0.00%	0.0		19.1	0.00%
ta093	Training	0	0.0	0.00%	0.0	0.00%	748.8	
ta094	Training	0	0.0	0.00%	0.0		2,551.7	
ta095	Training	0	0.0	0.00%	0.0	0.00%	63.8	
ta096	Training	0	0.0	0.00%	0.0		63.8	
ta097	Training	0	0.0	0.00%	0.0		63.8	
ta109	Training	65	72.6		72.6		557.9	
ta110	Training	0	0.0	0.00%	0.0		19.0	0.00%
ta111	Training	0	0.0	0.00%	0.0		19.0	
ta112	Training	0	0.0	0.00%	0.0		19.0	
ta116	Training	0	0.0	0.00%	0.0	0.00%	922.4	0.02%
ta129	Training	0	0.0	0.00%	0.0		108.6	
ta130	Training	18	0.2	0.00%	0.2		56.0	
ta131	Training	91	0.4	0.00%	0.4		45.6	
ta132	Training	0	0.0	0.00%	0.0		19.4	0.00%
ta133	Training	0	0.0	0.00%	0.0		27.5	
ta134	Training	0	0.0	0.00%	0.0	0.00%	25.3	0.00%
ta134	Training	0	0.0	0.00%	0.0		25.4	0.00%
d191	Service	9	0.0	0.00%	3.6		4.2	0.00%
d194	Service	0	0.0	0.00%	0.0		144.8	
t03	Service	0	0.0	0.00%	0.0		0.5	
103	Service	Ч	0.0	0.00%	0.0	0.00%	0.5	0.00%

Project	Project	Number	Charged	Charged	Used CUs	Utilisation	Allocated	Allocation
	Class	of Jobs	CUs	Utilisation			CUs	
t04	Service	1	1.1	0.00%	1.1	0.00%	500.0	0.01%
y01	Service	0	0.0	0.00%	0.0	0.00%	74.8	0.00%
y02	Service	169	21,154.4	0.49%	21,267.3	0.49%	4,246.6	0.10%
y07	Service	0	0.0	0.00%	0.0	0.00%	82.9	0.00%
y23	Service	0	0.0	0.00%	0.0	0.00%	84.9	0.00%
z01	Service	0	0.0	0.00%	0.0	0.00%	8.3	0.00%
z02	Service	2	0.0	0.00%	0.0	0.00%	8.5	0.00%
z19	Service	7,107	19,415.1	0.45%	19,973.9	0.46%	42,349.7	0.97%
z40	Service	0	0.0	0.00%	0.0	0.00%	170.4	0.00%
z99	Service	0	0.0	0.00%	0.0	0.00%	0.8	0.00%
DirectorsTime		9,491	50,553.4	1.16%	51,991.8	1.19%	85,629.6	1.97%
Total								
Total		168,252	3,867,789.1	88.90%	3,983,150.4	91.55%	4,474,831.0	102.85%

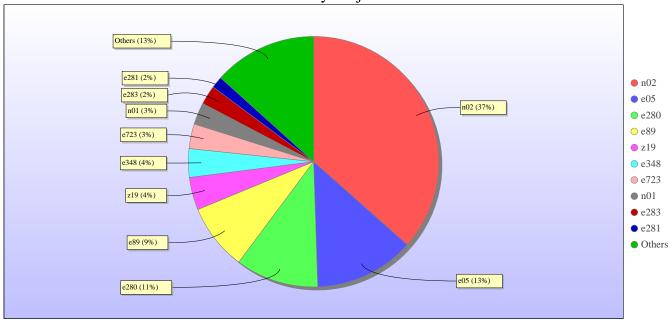




Uncharged Use by Project



Jobs by Project

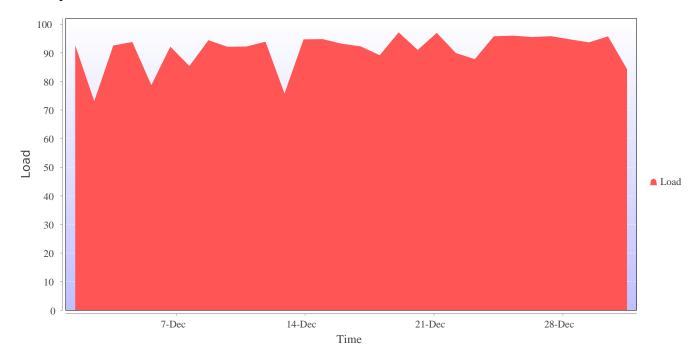


#### CUs (by Size)

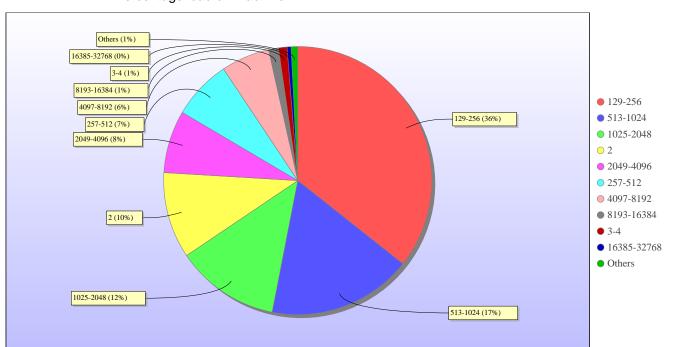
Size	CUs	Number of Jobs						
2	0	17,477						
3-4	0	1,723						
5-8	0	475						
9-16	0	67						
17-32	0	98						
129-256	143,593.73							
257-512	84,622.849							
513-1024	228,719.716	29,289						
1025-2048	478,357.194	21,024						
2049-4096	586,982.782	12,680						

Size	CUs	Number of Jobs
4097-8192	546,353.592	9,833
8193-16384	583,703.126	2,008
16385-32768	453,453.912	801
32769-65536	411,340.929	461
65537-131072	259,136.489	156
131073-262144	75,054.579	66
262145-524288	12,594.693	15
524289-1048576	1,854.018	6

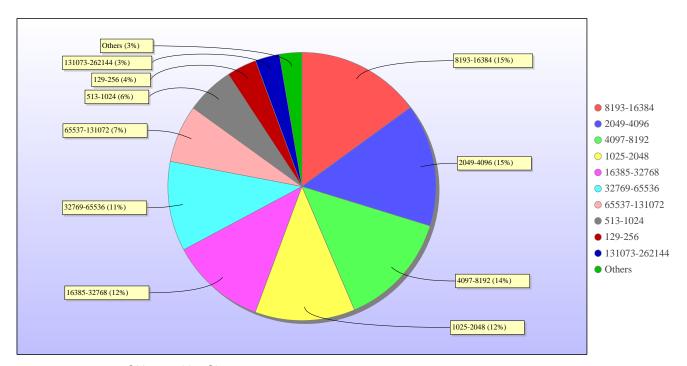
## **Load plots**



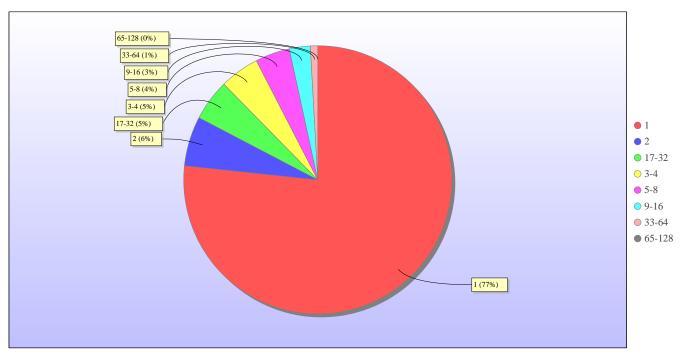
Percentage load on machine



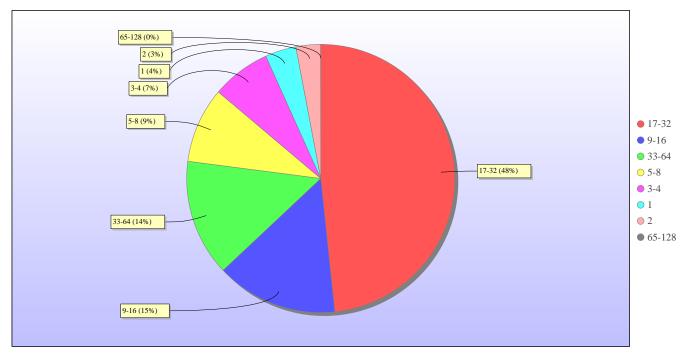
Jobs by Size



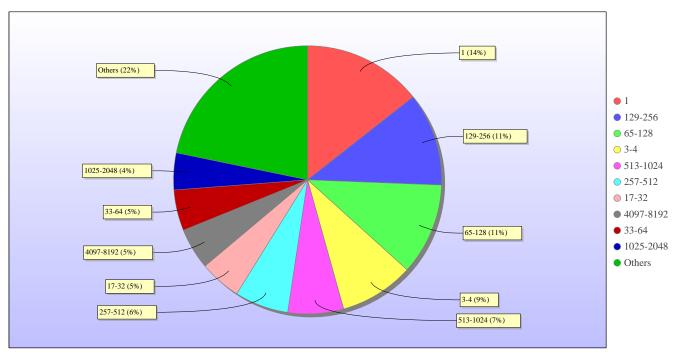
CUs used by Size



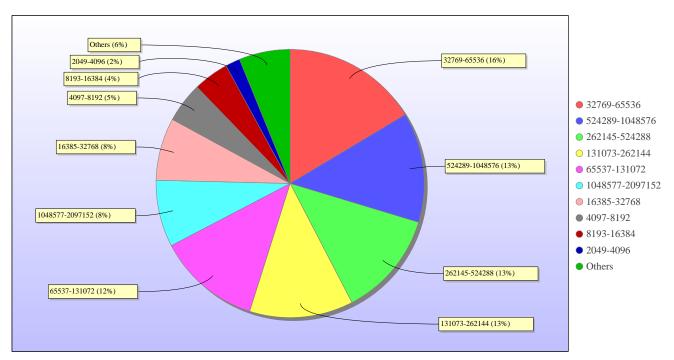
Jobs grouped by wall-clock-hours



CUs used grouped by wall-clock-hours



Jobs grouped by core-hours

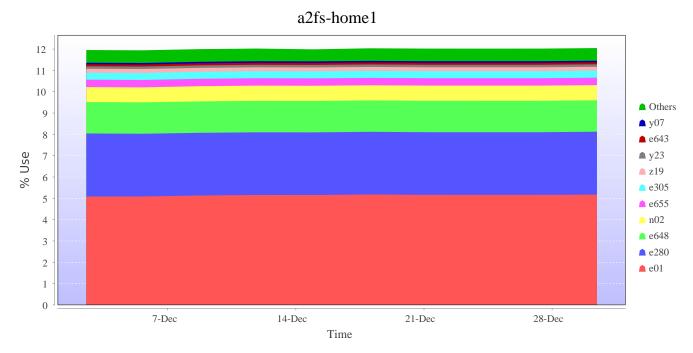


CUs used grouped by core-hours

### Disk usage

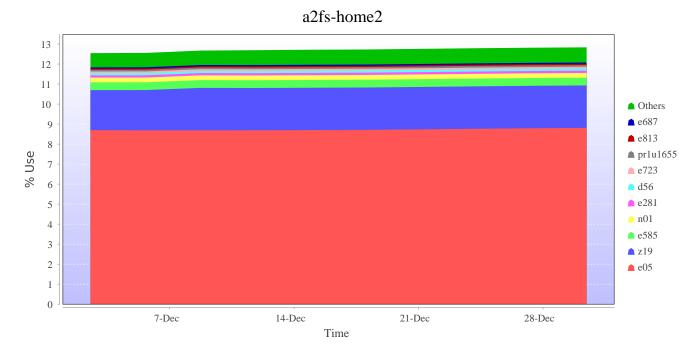
#### Disk usage for home (a2fs-home1)

This is a plot of Disk Use on a2fs-home1 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



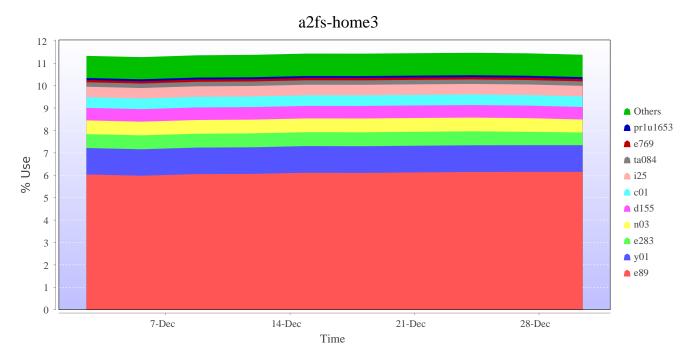
## Disk usage for home (a2fs-home2)

This is a plot of Disk Use on a2fs-home2 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



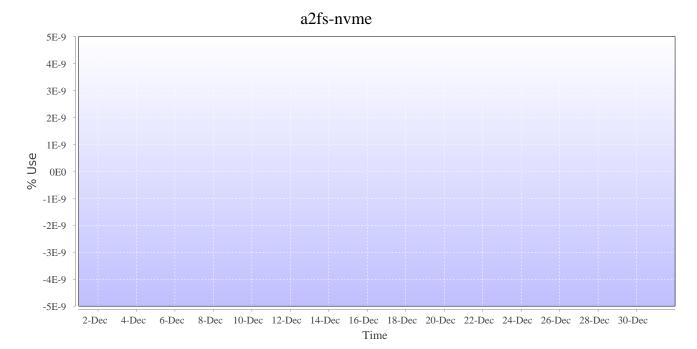
#### Disk usage for home (a2fs-home3)

This is a plot of Disk Use on a2fs-home3 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



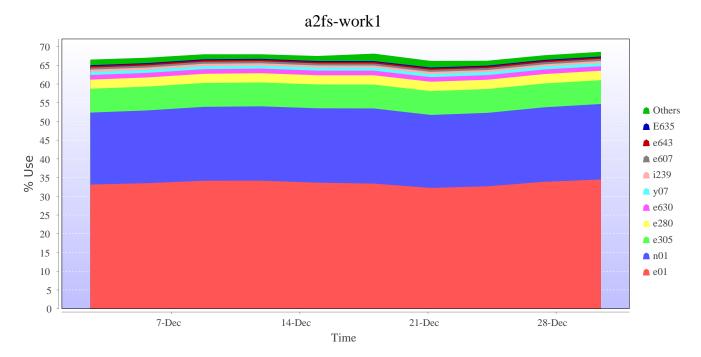
#### Disk usage for work-nVME (a2fs-nvme)

This is a plot of Disk Use on a2fs-nvme against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



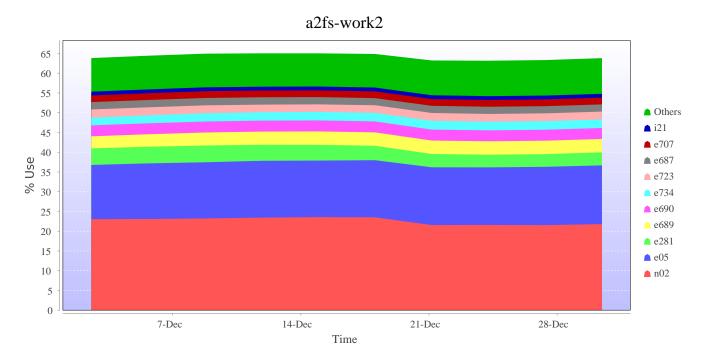
#### Disk usage for work (a2fs-work1)

This is a plot of Disk Use on a2fs-work1 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



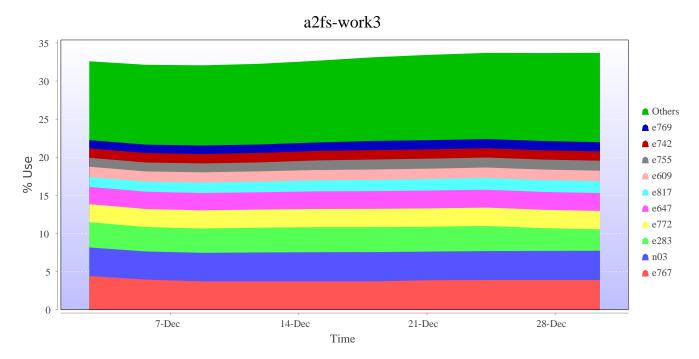
#### Disk usage for work (a2fs-work2)

This is a plot of Disk Use on a2fs-work2 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



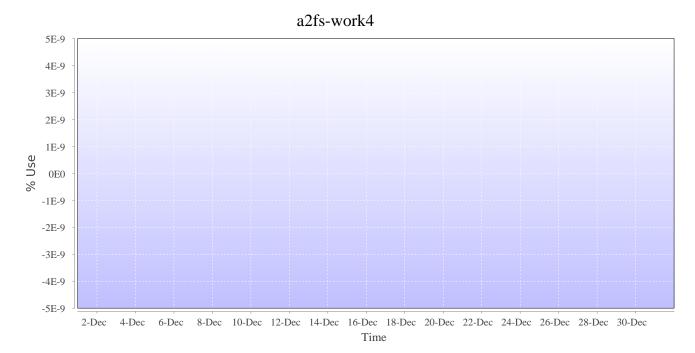
#### Disk usage for work (a2fs-work3)

This is a plot of Disk Use on a2fs-work3 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



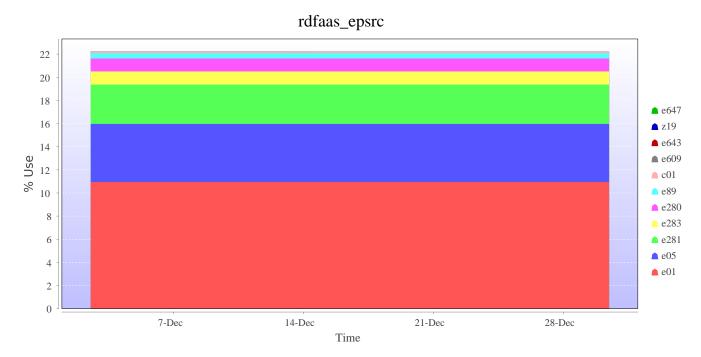
#### Disk usage for work (a2fs-work4)

This is a plot of Disk Use on a2fs-work4 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



#### Disk usage for epsrc ( rdfaas\_epsrc )

This is a plot of Disk Use on rdfaas\_epsrc against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



### Disk usage for general ( rdfaas\_general )

This is a plot of Disk Use on rdfaas\_general against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.

