

12 GeV requirement summary

Hall	A	B	C	D	Total	Cost k\$
2011 vintage cores	60	2000	70	9000	11,500	600
Raw data, PByte/yr	0.1 - 1	1	0.1 - 0.5	3	6	120 / yr
All data, including Raw, PByte/yr	0.2 - 3	5.5	0.7 - 2	8	14 - 18.5	280 - 370 / yr
Disk TB	100	800	200	200	1300	650

- The numbers presented are 2015 and beyond, pre-2015 levels are down by a factor of 10 and covered by the scale of the existing analysis farm. The total represents “worst case” with all four halls running at once which probably won’t happen.
- The rough cost is based on a few assumptions:
 - The halls benchmarked against 2011 vintage 64-bit processors. In four years we assume a performance per \$ three times better than today’s \$160 per core.
 - Assume LTO6 tapes at 3 TB and \$60 per tape.
 - Assume \$500 per terabyte of disk.
- The 9,000 core figure for hall-D is conservative (maybe high). It includes multiple passes through the data and neglects any off-site simulation.