

March 7, 2007

Dear Mike:

This is a short note explaining some of features in the revised Argonne Summary Table, summarizing FY06 cost through FY09 request.

What we presented at the meeting, and the numbers in my talk, were all the total budget needed, not taking into account anticipated other sources of funding like LDRD, Nova funds from Fermilab, Office of Naval Research, etc.

This information is at:

<http://www.hep.anl.gov/FWP/>

The new table just lists the funding received/requested from DOE.

This table can be found at:

http://www.hep.anl.gov/FWP/ANL-Summary_Briefing_FY06-09_DoE_only.pdf

Some explanation to the table:

KA11 through KA13:

FY06-07

There is a “large” increase going from 06 to 07 , which is mainly due to the following factors

1. Increase indirect rate at Argonne from 37.3% to 41.7%. This is nearly a 5% increase (I said 7% in my talk). In addition direct charges for buildings etc have gone up substantially
2. Salary bands were introduced in 07, which result in a net increase in cost
3. Two people coming back on payroll after being paid by Fermi and DESY.
4. Paying off AM-ZEUS debt
5. “fixing” the theory problem, see my talk
6. More base support to ATLAS, not ramping down yet on CDF and ZEUS.

FY08-09

For 08-09 I assumed roughly a 10-15% increase/year. You can see a ramp down in CDF & ZEUS, ramp up in ATLAS, with real attempt at establishing the ATLAS Analysis Center and a ramp up in VERITAS/Astrophysics. The ramp up in KA13 assumes there is an Astrophysics initiative at Argonne, funded mainly by LDRD. So the real ramp up of Astrophysics will be faster then what you see in the DoE numbers only.

NOTE: As I said at the meeting I would like to see Argonne HEP grow. So my 10-15% is my estimate of “realistic” growth in this area. I hope it overlaps with what you call “realistic”.

KA15

FY06-07

Obviously there is a large increase here.

- I think I explained the AWA increase in my talk and we have talked to L.K about this
- The Muon Accel. Component will ultimately be decided by that collaboration (i.e. what fraction of their work should be done at Argonne).

- ILC accel. R&D will be decided by ART and we will adjust effort accordingly. NOTE: nearly 80% of that work is outside my division, see my talk.
- Detector R&D: I really would like to request to keep this at roughly \$1M/year, because it allows us to pursue new directions, which we are doing (see my talk and my argument about flexibility).
- ILC detector R&D: we have submitted a supplement through LDRD for FY07. That supplement was limited to \$500K. What is reflected in FY07 includes the manpower to do this work.

FY08-09

There is another large increase here, which is outside the 10-15% range, **BUT this is R&D, and effort will be driven by available funds and reviews:**

- AWA settles at a level where we are supporting all people
- SCRF Materials R&D is a proposal for what we think is critical R&D on superconducting cavity surfaces with the Argonne Material Science Division. We need to make a solid argument for this and would like to explore collaboration with BES.
- The Muon Accel. Component will ultimately be decided by that collaboration (i.e. what fraction of their work should be done at Argonne).
- ILC accel. R&D will be decided by ART and we will adjust effort accordingly. Effort listed here is more like: this is what we would like to do.
- Detector R&D: I really would like to request to keep this at roughly \$1M/year, because it allows us to pursue new directions, which we are doing (see my talk and my argument about flexibility).
- ILC detector R&D: we are working on defining a ILC detector R&D program to be proposed to DOE. The amounts allocated in these two years, will be decided by that process and how much the US will invest. This is my estimate of the work that will be done on that at Argonne.

An update of my talk (fixed the CDF numbers and added the SCRF materials R&D), which was left out originally.

The talk can be found at:

http://www.hep.anl.gov/FWP/Argonne_HEP_overview_07_HW.ppt