

ILC Americas/Fermilab Financial Report
Fiscal Year 2006 4th Quarter

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The financial summary (attached to the technical report) is compiled using data from the end of Fiscal Year 2006 Fermilab accounting reports. This summary incorporates the latest revision of the GDE funding distribution as agreed to by the DOE, Fermilab and the ILC Americas Regional Director. The budget totals balance exactly with the numbers contained in the 2006 Fermilab Financial Plan. In addition, the M&S budget allocation that was held temporarily in the WBS Line titled "6.3 Fermilab Reserve" has been reallocated to "3.9.2 Cavity Fabrication" where it was used to purchase additional cavities from US industry.

The financial information is presented in two ways. The standard ILC Americas report uses both "Direct and Indirect Cost" information and shows "Open Commitments", "Requisitions in Process", "Total Budget", and "Budget Balance". This gives a financial picture for the actual costs of the project to date and a look at what is "coming in the near future". However, one must be careful when looking at the "Budget Balance" column, since "Indirect" charges are not costed until the "Open Commitments" are costed. Therefore, even though the Open Commitments are taken into account, the related indirect charges are not. This column overstates the budget balance since invoices for the open commitments will eventually come in and be paid. At that time, indirect charges will be applied and the budget balance will become much smaller. This financial data is displayed in the ILC Americas WBS format for easy incorporation into an overall ILC Americas report.

The second table shows the financial data sorted by ILC Americas WBS (FNAL WBS elements only) and gives the numbers based on "Obligations" and "Requisitions in Process". The report looks only at "direct costs". Including "Requisitions in Process" creates a more forward looking view of the financial status of the project and helps the reviewer anticipate how the 2006 Fiscal Year will end and the 2007 Fiscal Year will begin. The combination of the two reports gives a clear view of not only the actual costs but the plan for spending.

The funding that comes through the ILC Americas Regional Director is split between two distinct end uses; funds for the GDE Office/Common Fund/Director Travel (also includes ILC School) and funds for ILC work packages dealing with RDR development, SRF technology and cavities & cryomodules. These are handled separately within the Fermilab system by assigning them to two different Project Numbers (19 and 18 respectively).

In regards to the GDE Office and Common Funds financial data (Project 19), the total budget (including indirect charges) was 748.4K. The sum of YTD cost + open commitments was 902.9K so that there was a negative balance of (154.5K) in those specific work packages. In fact, as shown above (in the discussion of indirect charges) the over-run will be slightly larger once all indirect charges are applied to the open commitments. The estimate of final over-run is ~183K. The assumption was that these work packages would be a zero balance at year end and that any over-runs would be made up through additional funding in FY07 and any under-runs would be "carried over" into FY07.

The remainder of this report will deal exclusively the technical work packages (Project 18). Table 1 gives a condensed view of FY06 financial data. A brief summary of the Project 18 FY06 this information is as follows:

For direct SWF, obligations are the same as costs. The total direct SWF budget was 3709K (including the funds that arrived in September for the ILC Communicator). The end-of-year obligations for Personnel Costs were equal to 3559.6K. There was a net balance of 149.4K that was not charged in FY06.

The bulk of that SWF under-charging occurred in WBS 3.9.2 Cavity Fabrication. The reason for this positive balance was that there was a delay in placing the order for new cavities until very late in the Fiscal Year. In addition, the same people who planned to charge time to Industrial Cavity Fabrication tasks were instead working (for longer than expected) on solving cavity problems on the 3.9GHz Project (something funded with internal FNAL SRF Infrastructure funds). Therefore the expected labor was not available to work on 1.3 GHz cavities. Most of the other work packages were very close to their budget estimates. The fact that some tasks are shared between ILC and the other FNAL SRF initiatives makes the exact proportioning of SWF problematic but in general the guidelines of the ILC GDE/FNAL MOU were met. A balance of 149K on a budget of 3709K represents a 4% effect which is well within acceptable standards.

For M&S, the direct budget was equal to 6768K for all of the Project 18 work packages. The direct cost was 3911.4K with open commitments of 3410.3K (total obligations equals 6754.4K). This is in very close balance to the M&S budget (0.2% difference). Requisitions in Process (RIP) totaled another 304.7K so the “plan” to spend M&S in FY06 was equal to 7059K which is more than the allocated budget. Of course it is well known that not all RIPs will become obligations due to slower than expected bidder response and delays in placing the orders. Therefore, the FNAL ILC Program Office allowed the additional requisitions to enter the system and wait for the beginning of FY07 to be obligated. It should be noted that these RIPs constitute part of the FY06 scope of work; they will be obligated in the first few months of FY07 and that on order of 300K should be added to the proposed FNAL/ILC funding plan in FY07 to account for these obligations.

Looking in detail at some specific work packages, there are several areas where M&S funding was over-obligated (some due to technical reasons and some because the scope of work expanded). These include:

WBS 2.11.2 Conventional Facilities – The conventional facilities work leading up to the RDR has proven to be much more time consuming than anticipated and the M&S budget (given the internal chargeback system that makes effort show up as M&S) was over-obligated by ~100K. This over-obligation was at the request of the GDE US Cost Engineer with the concurrence of the ILC Americas Regional Director who needed the work done in order to make progress on the RDR and ILC cost estimate. The understanding was that FNAL would be reimbursed for this work in the future.

WBS 3.9.3 Cavity Processing – The combination of a slower than anticipated progress on the Joint FNAL/ANL Processing Facility and the total sum of funds being redirected away from Fermilab to collaborating institutions under processing-related MOUs led to an over-obligation of ~120K.

WBS 3.9.4 Cryomodule Design – The collaborative effort to design the Type IV cryomodule was centered at FNAL (with participation of DESY, INFN, and KEK). Unfortunately, the current state of design work at FNAL required the use of contract designers to perform the work. This is costed as M&S since they are employed temporarily via a purchase requisition to an outside vendor. The amount of work involved in this effort is large as new ideas for cost savings and design for manufacturing concepts are incorporated. This work package was over-obligated by ~90K.

The way these budget over-runs were handled in order to stay within the budget was that the order for cavities which was issued late in FY06 (under WBS 3.9.2 Cavity Fabrication) was adjusted to accommodate the available budget. This reduction in the number of cavities ordered reflects a change in the FY06 scope of work due to the need to balance the budget in other areas.

In summary, the FY06 financial report gives a clear picture of the financial status of the ILC Program at Fermilab. The budget and accounting processes are now well established with a well defined mapping of the FNAL internal Project 18 to the ILC Americas WBS. The FY06 summary shows obligations matched to the available budget. The labor costs were well within acceptable standards and were aligned with the intentions of ILC Americas/FNAL MOU. The work packages that were over-obligated were balanced by the ability to adjust the number of cavities ordered.

Table 1 Summary of Direct-Only Budgets/Obligations for ILC Work Packages (Project 18)

GDE Title	GDE WBS	Materials & Services				Personnel Costs		
		Sum of BUDGET	Sum of YTD (OBLG)	Sum of Bud-YTD	Sum of Bud-(YTD+RIP)	Sum of BUDGET	Sum of YTD OBLG	Sum of Bud-YTD
Project Management	1.2	310.0	313.7	(3.7)	(3.7)	420.0	402.6	17.4
ILC Public Relations	1.4	74.0	75.5	(1.5)	(1.6)	78.0	79.3	(1.3)
RDR	2.1.2	91.0	78.7	12.3	(45.2)	440.0	448.2	(8.2)
Damping Ring	2.5.2	50.0	42.3	7.7	4.0	130.0	130.4	(0.4)
Main Linac Accel Physics	2.7.3	109.5	104.4	5.1	5.1	411.0	433.9	(22.9)
Conventional Facilities	2.11.2	450.0	549.1	(99.1)	(99.1)	0.0	0.8	(0.8)
Cavity Fabrication	3.9.2	1,901.5	1,701.4	200.1	(3.7)	250.0	150.1	99.9
Cavity Processing	3.9.3	944.0	1,066.0	(122.0)	(123.3)	325.0	321.9	3.1
Cryomodule Design	3.9.4	300.0	389.2	(89.2)	(89.2)	260.0	240.1	19.9
BDS Collimators	3.10.6	50.0	49.8	0.2	0.2	180.0	183.4	(3.4)
Magnet Systems	4.3.1	38.0	37.7	0.3	0.3	180.0	172.0	8.0
CM Industrial Study	4.10.1	600.0	605.2	(5.2)	(5.2)	0.0	0.0	0.0
Civil Industrial Study	4.10.2	340.0	300.0	40.0	40.0	0.0	0.0	0.0
RF Power	5.8.3	310.0	272.0	38.0	4.9	173.0	156.7	16.3
LLRF	5.8.4	200.0	184.3	15.8	13.8	230.0	223.3	6.7
HTS	5.9.1	200.0	187.4	12.6	12.6	201.0	189.1	11.9
VTS	5.9.2	400.0	371.6	28.4	28.4	201.0	200.1	0.9
Cryo for Test Stands	5.9.3	400.0	426.1	(26.1)	(29.4)	230.0	227.7	2.3
Reserve	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grand Total		6,768.0	6,754.4	13.6	(291.1)	3,709.0	3,559.6	149.4

YTD = Year to Date

OBLG = Obligations

RIP = Requisitions in Process