

CDF RunIb Calorimeter Schedule - Cost Chart

WBS	Name	Cost	U.S. R&D	M&S	M&S - Cont.	Labor	Labor - Cont.	G&A	G&A - Cont.	Japan	Institution	Italy
1.2	<b>Calorimeter Upgrades</b>	<b>\$967,388.00</b>	<b>\$55,984.00</b>	<b>\$852,728.00</b>	<b>\$242,851.40</b>	<b>\$114,660.00</b>	<b>\$39,639.60</b>	<b>\$72,695.11</b>	<b>\$54,321.62</b>	<b>\$293,540.00</b>	.	<b>\$279,290.00</b>
1.2.1	<b>Central Preshower and Crack Detectors</b>	<b>\$764,653.00</b>	<b>\$55,672.00</b>	<b>\$676,201.00</b>	<b>\$186,390.10</b>	<b>\$88,452.00</b>	<b>\$26,535.60</b>	<b>\$65,199.62</b>	<b>\$40,580.23</b>	<b>\$293,540.00</b>	.	<b>\$157,224.00</b>
1.2.1.1	<b>Start of Preshower/Crack Subproject</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.2	<b>Research and Development(US)</b>	<b>\$55,672.00</b>	<b>\$55,672.00</b>	<b>\$55,672.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$9,853.94</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.2.1	Procure mechanical parts and fixtures for prototype modules	\$13,000.00	\$13,000.00	\$13,000.00	\$0.00	\$0.00	\$0.00	\$2,301.00	\$0.00	\$0.00	ANL	\$0.00
1.2.1.2.2	Assembly and testing of prototype modules	\$21,672.00	\$21,672.00	\$21,672.00	\$0.00	\$0.00	\$0.00	\$3,835.94	\$0.00	\$0.00	ANL	\$0.00
1.2.1.2.3	Assembly of electronics transition card and cables	\$5,000.00	\$5,000.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$885.00	\$0.00	\$0.00	ANL	\$0.00
1.2.1.2.4	Prototype fiber bundles and phototube box	\$16,000.00	\$16,000.00	\$16,000.00	\$0.00	\$0.00	\$0.00	\$2,832.00	\$0.00	\$0.00	MSU	\$0.00
1.2.1.2.5	Schedule Contingency for Prototype R+D	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	FNAL	\$0.00
1.2.1.3	<b>Research and Development(Japan)</b>	<b>\$28,940.00</b>	<b>\$0.00</b>	<b>\$28,940.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$28,940.00</b>	<b>Tsukuba</b>	<b>\$0.00</b>
1.2.1.3.1	Procure phototubes for testing	\$28,940.00	\$0.00	\$28,940.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28,940.00	Tsukuba	\$0.00
1.2.1.3.2	Test phototubes	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Tsukuba	\$0.00
1.2.1.3.3	<b>Schedule Contingency for Phototube R+D</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>FNAL</b>	<b>\$0.00</b>
1.2.1.4	<b>Research and Development(Italy)</b>	<b>\$18,000.00</b>	<b>\$0.00</b>	<b>\$18,000.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>INFN-Pisa</b>	<b>\$18,000.00</b>
1.2.1.4.1	Procure scintillator and fibers for prototypes	\$18,000.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	INFN-Pisa	\$18,000.00
1.2.1.4.2	Test scintillator and fibers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	INFN-Pisa	\$0.00
1.2.1.4.3	<b>Schedule Contingency for Optics R+D</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>FNAL</b>	<b>\$0.00</b>
1.2.1.5	<b>Procure parts</b>	<b>\$498,993.00</b>	<b>\$0.00</b>	<b>\$498,993.00</b>	<b>\$161,991.30</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$16,844.91</b>	<b>\$28,672.46</b>	<b>\$264,600.00</b>	.	<b>\$139,224.00</b>
1.2.1.5.1	<b>Phototubes and bases</b>	<b>\$264,600.00</b>	<b>\$0.00</b>	<b>\$264,600.00</b>	<b>\$79,380.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$14,050.26</b>	<b>\$264,600.00</b>	<b>Tsukuba</b>	<b>\$0.00</b>
1.2.1.5.1.1	JY 2002 Batch	\$54,600.00	\$0.00	\$54,600.00	\$16,380.00	\$0.00	\$0.00	\$0.00	\$2,899.26	\$54,600.00	Tsukuba	\$0.00
1.2.1.5.1.2	JY 2003 Batch	\$146,000.00	\$0.00	\$146,000.00	\$43,800.00	\$0.00	\$0.00	\$0.00	\$7,752.60	\$146,000.00	Tsukuba	\$0.00
1.2.1.5.1.3	JY 2004 Batch	\$64,000.00	\$0.00	\$64,000.00	\$19,200.00	\$0.00	\$0.00	\$0.00	\$3,398.40	\$64,000.00	Tsukuba	\$0.00
1.2.1.5.1.4	<b>Schedule Contingency for Phototube Procurement</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>FNAL</b>	<b>\$0.00</b>
1.2.1.5.2	Electronics Transition Card	\$24,312.00	\$0.00	\$24,312.00	\$7,293.60	\$0.00	\$0.00	\$4,303.22	\$1,290.97	\$0.00	ANL	\$0.00
1.2.1.5.3	HV Supplies and cables	\$50,000.00	\$0.00	\$50,000.00	\$15,000.00	\$0.00	\$0.00	\$0.00	\$2,655.00	\$0.00	INFN-Pisa	\$50,000.00
1.2.1.5.4	Clear Fiber Bundle parts	\$12,100.00	\$0.00	\$12,100.00	\$3,630.00	\$0.00	\$0.00	\$2,141.70	\$642.51	\$0.00	MSU	\$0.00
1.2.1.5.5	Wavelength-shifting fiber holder parts	\$7,800.00	\$0.00	\$7,800.00	\$2,340.00	\$0.00	\$0.00	\$1,380.60	\$414.18	\$0.00	MSU	\$0.00
1.2.1.5.6	Phototube box parts	\$36,000.00	\$0.00	\$36,000.00	\$10,800.00	\$0.00	\$0.00	\$6,372.00	\$1,911.60	\$0.00	MSU	\$0.00
1.2.1.5.7	<b>Preshower Detector parts</b>	<b>\$85,262.00</b>	<b>\$0.00</b>	<b>\$85,262.00</b>	<b>\$35,373.40</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$2,206.13</b>	<b>\$6,261.09</b>	<b>\$0.00</b>	<b>INFN-Pisa</b>	<b>\$72,798.00</b>
1.2.1.5.7.1	Scintillator	\$36,288.00	\$0.00	\$36,288.00	\$10,886.40	\$0.00	\$0.00	\$0.00	\$1,926.89	\$0.00	INFN-Pisa	\$36,288.00
1.2.1.5.7.2	Optical Fibers	\$36,510.00	\$0.00	\$36,510.00	\$18,255.00	\$0.00	\$0.00	\$0.00	\$3,231.14	\$0.00	INFN-Pisa	\$36,510.00
1.2.1.5.7.3	Sheet metal and misc. supplies	\$12,464.00	\$0.00	\$12,464.00	\$6,232.00	\$0.00	\$0.00	\$2,206.13	\$1,103.06	\$0.00	ANL	\$0.00
1.2.1.5.8	<b>Crack Detector parts</b>	<b>\$18,919.00</b>	<b>\$0.00</b>	<b>\$18,919.00</b>	<b>\$8,174.30</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$441.26</b>	<b>\$1,446.85</b>	<b>\$0.00</b>	<b>INFN-Pisa</b>	<b>\$16,426.00</b>
1.2.1.5.8.1	Scintillator	\$10,000.00	\$0.00	\$10,000.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$885.00	\$0.00	INFN-Pisa	\$10,000.00
1.2.1.5.8.2	Optical Fibers	\$6,426.00	\$0.00	\$6,426.00	\$1,927.80	\$0.00	\$0.00	\$0.00	\$341.22	\$0.00	INFN-Pisa	\$6,426.00
1.2.1.5.8.3	Sheet metal and misc. supplies	\$2,493.00	\$0.00	\$2,493.00	\$1,246.50	\$0.00	\$0.00	\$441.26	\$220.63	\$0.00	ANL	\$0.00
1.2.1.6	<b>Preshower Detector Assembly</b>	<b>\$115,866.00</b>	<b>\$0.00</b>	<b>\$36,108.00</b>	<b>\$10,832.40</b>	<b>\$79,758.00</b>	<b>\$23,927.40</b>	<b>\$29,201.90</b>	<b>\$8,760.57</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.6.1	Prepare scintillator tiles	\$67,284.00	\$0.00	\$0.00	\$0.00	\$67,284.00	\$20,185.20	\$19,243.22	\$5,772.97	\$0.00	FNAL	\$0.00
1.2.1.6.2	Prepare optical fibers	\$12,474.00	\$0.00	\$0.00	\$0.00	\$12,474.00	\$3,742.20	\$3,567.56	\$1,070.27	\$0.00	FNAL	\$0.00
1.2.1.6.3	Assemble bottom of module	\$4,738.00	\$0.00	\$4,738.00	\$1,421.40	\$0.00	\$0.00	\$838.63	\$251.59	\$0.00	ANL	\$0.00
1.2.1.6.4	Installing fibers into tiles	\$15,793.00	\$0.00	\$15,793.00	\$4,737.90	\$0.00	\$0.00	\$2,795.36	\$838.61	\$0.00	ANL	\$0.00
1.2.1.6.5	Assemble module top	\$6,317.00	\$0.00	\$6,317.00	\$1,895.10	\$0.00	\$0.00	\$1,118.11	\$335.43	\$0.00	ANL	\$0.00
1.2.1.6.6	Quality control	\$9,260.00	\$0.00	\$9,260.00	\$2,778.00	\$0.00	\$0.00	\$1,639.02	\$491.71	\$0.00	ANL	\$0.00
1.2.1.7	<b>Crack Detector Assembly</b>	<b>\$18,082.00</b>	<b>\$0.00</b>	<b>\$9,388.00</b>	<b>\$2,816.40</b>	<b>\$8,694.00</b>	<b>\$2,608.20</b>	<b>\$4,148.16</b>	<b>\$1,244.45</b>	<b>\$0.00</b>	<b>FNAL</b>	<b>\$0.00</b>
1.2.1.7.1	Prepare scintillator tiles	\$8,694.00	\$0.00	\$0.00	\$0.00	\$8,694.00	\$2,608.20	\$2,486.48	\$745.95	\$0.00	FNAL	\$0.00
1.2.1.7.2	Assemble detector with CPR procedure	\$9,388.00	\$0.00	\$9,388.00	\$2,816.40	\$0.00	\$0.00	\$1,661.68	\$498.50	\$0.00	ANL	\$0.00
1.2.1.8	<b>Fiber Bundle Assembly</b>	<b>\$29,100.00</b>	<b>\$0.00</b>	<b>\$29,100.00</b>	<b>\$10,750.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$5,150.70</b>	<b>\$1,902.75</b>	<b>\$0.00</b>	<b>MSU</b>	<b>\$0.00</b>
1.2.1.8.1	Assemble WLS fiber holders	\$8,900.00	\$0.00	\$8,900.00	\$2,670.00	\$0.00	\$0.00	\$1,575.30	\$472.59	\$0.00	MSU	\$0.00

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WBS	Name	Cost	U.S. R&D	M&S	M&S - Cont.	Labor	Labor - Cont.	G&A	G&A - Cont.	Japan	Institution	Italy
1.2.1.8.2	Assemble phototube fixtures	\$10,100.00	\$0.00	\$10,100.00	\$5,050.00	\$0.00	\$0.00	\$1,787.70	\$893.85	\$0.00	MSU	\$0.00
1.2.1.8.3	Assemble clear fiber bundles	\$10,100.00	\$0.00	\$10,100.00	\$3,030.00	\$0.00	\$0.00	\$1,787.70	\$536.31	\$0.00	MSU	\$0.00
1.2.1.9	<b>Physicist or Student Labor</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>Tsukuba</b>	<b>\$0.00</b>
1.2.1.9.1	Phototube Testing Year 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Tsukuba	\$0.00
1.2.1.9.2	Phototube Testing Year 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Tsukuba	\$0.00
1.2.1.9.3	Phototube Testing Year 3	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Tsukuba	\$0.00
1.2.1.9.4	Detector Testing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	ANL	\$0.00
1.2.1.9.5	Schedule Contingency for Detector Assembly and Testing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	FNAL	\$0.00
1.2.1.10	<b>Level 2 Milestones</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.1	<b>First phototube order placed</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.2	<b>1st WLS fiber holder finished</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.3	<b>First set of phototubes tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.4	<b>1st CPR module finished and tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.5	<b>Second set of phototubes tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.6	<b>1st CCR module finished and tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.7	<b>50% CPR Detectors Tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.8	<b>50% CCR Detectors Tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.9	<b>Final CPR Detector Tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.10	<b>Final CCR Detector Tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.11	<b>Final set of phototubes tested</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.1.10.12	<b>End of Central Preshower Project</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.2	<b>Electromagnetic timing</b>	<b>\$202,735.00</b>	<b>\$312.00</b>	<b>\$176,527.00</b>	<b>\$56,461.30</b>	<b>\$26,208.00</b>	<b>\$13,104.00</b>	<b>\$7,495.49</b>	<b>\$13,741.39</b>	<b>\$0.00</b>	.	<b>\$122,066.00</b>
1.2.2.1	<b>Research and Development</b>	<b>\$12,936.00</b>	<b>\$312.00</b>	<b>\$12,000.00</b>	<b>\$3,600.00</b>	<b>\$936.00</b>	<b>\$468.00</b>	<b>\$267.70</b>	<b>\$771.05</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$10,000.00</b>
1.2.2.1.1	Procure parts for splitters & cable prototypes, misc test stand	\$2,000.00	\$0.00	\$2,000.00	\$600.00	\$0.00	\$0.00	\$0.00	\$106.20	\$0.00	A&M	\$0.00
1.2.2.1.2	<b>Assemble Splitter Prototype</b>	\$624.00	\$0.00	\$0.00	\$0.00	\$624.00	\$312.00	\$178.46	\$89.23	\$0.00	<b>U.Chicago</b>	\$0.00
1.2.2.1.3	<b>Assemble PEM harness prototype</b>	\$312.00	\$312.00	\$0.00	\$0.00	\$312.00	\$156.00	\$89.23	\$44.62	\$0.00	<b>FNAL</b>	\$0.00
1.2.2.1.4	Tests to finalize CEM Splitter	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.1.5	Tests to finalize PEM Harness	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.1.6	Tests to finalize ASD->TDC cables	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.1.7	<b>Build ASD/TB Prototypes and test</b>	\$10,000.00	\$0.00	\$10,000.00	\$3,000.00	\$0.00	\$0.00	\$0.00	\$531.00	\$0.00	<b>IFN-Frascati</b>	\$10,000.00
1.2.2.1.8	Prototype ASD tests with CEM Splitter, TDC cable, and TDC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.1.9	Assembly of wedge test stand	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.1.10	Wedge test using all components	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2	<b>Purchase parts for components and Produce</b>	<b>\$189,799.00</b>	<b>\$0.00</b>	<b>\$164,527.00</b>	<b>\$52,861.30</b>	<b>\$25,272.00</b>	<b>\$12,636.00</b>	<b>\$7,227.79</b>	<b>\$12,970.35</b>	<b>\$0.00</b>	.	<b>\$112,066.00</b>
1.2.2.2.1	<b>CEM Splitter</b>	<b>\$43,846.00</b>	<b>\$0.00</b>	<b>\$27,934.00</b>	<b>\$8,380.20</b>	<b>\$15,912.00</b>	<b>\$7,956.00</b>	<b>\$4,550.83</b>	<b>\$3,758.71</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$0.00</b>
1.2.2.2.1.1	Procure Splitter parts	\$27,934.00	\$0.00	\$27,934.00	\$8,380.20	\$0.00	\$0.00	\$0.00	\$1,483.30	\$0.00	A&M	\$0.00
1.2.2.2.1.2	<b>Build Splitters</b>	\$15,912.00	\$0.00	\$0.00	\$0.00	\$15,912.00	\$7,956.00	\$4,550.83	\$2,275.42	\$0.00	<b>FNAL</b>	\$0.00
1.2.2.2.1.3	Test CEM Splitter Cables	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2.2	<b>PEM Cable Harness</b>	<b>\$23,887.00</b>	<b>\$0.00</b>	<b>\$14,527.00</b>	<b>\$4,358.10</b>	<b>\$9,360.00</b>	<b>\$4,680.00</b>	<b>\$2,676.96</b>	<b>\$2,109.86</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$0.00</b>
1.2.2.2.2.1	Procure PEM Harness Parts	\$14,527.00	\$0.00	\$14,527.00	\$4,358.10	\$0.00	\$0.00	\$0.00	\$771.38	\$0.00	A&M	\$0.00
1.2.2.2.2.2	<b>Build PEM Harnesses</b>	\$9,360.00	\$0.00	\$0.00	\$0.00	\$9,360.00	\$4,680.00	\$2,676.96	\$1,338.48	\$0.00	<b>FNAL</b>	\$0.00
1.2.2.2.2.3	Test PEM Harnesses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2.3	<b>ASD and Transition Boards</b>	<b>\$89,550.00</b>	<b>\$0.00</b>	<b>\$89,550.00</b>	<b>\$26,865.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$4,755.10</b>	<b>\$0.00</b>	<b>IFN-Frascati</b>	<b>\$89,550.00</b>
1.2.2.2.3.1	Produce ASD and Transition boards	\$89,550.00	\$0.00	\$89,550.00	\$26,865.00	\$0.00	\$0.00	\$0.00	\$4,755.10	\$0.00	NFN-Frascati	\$89,550.00
1.2.2.2.3.2	<b>Test ASDs and Transition boards</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$0.00</b>
1.2.2.2.4	<b>ASD-&gt;TDC Cables</b>	<b>\$22,516.00</b>	<b>\$0.00</b>	<b>\$22,516.00</b>	<b>\$11,258.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,992.67</b>	<b>\$0.00</b>	<b>IFN-Frascati</b>	<b>\$22,516.00</b>
1.2.2.2.4.1	Purchase ASD to TDC cables	\$22,516.00	\$0.00	\$22,516.00	\$11,258.00	\$0.00	\$0.00	\$0.00	\$1,992.67	\$0.00	NFN-Frascati	\$22,516.00
1.2.2.2.4.2	<b>Test ASD-&gt;TDC Cables</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$0.00</b>

CDF RunIb Calorimeter Schedule - Cost Chart

WBS	Name	Cost	U.S. R&D	M&S	M&S - Cont.	Labor	Labor - Cont.	G&A	G&A - Cont.	Japan	Institution	Italy
1.2.2.2.5	<b>VME Crate for TDCs</b>	<b>\$10,000.00</b>	<b>\$0.00</b>	<b>\$10,000.00</b>	<b>\$2,000.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$354.00</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$0.00</b>
1.2.2.2.5.1	Procure VME Crate for TDCs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2.5.2	Procure VME Crate Power Supply	\$2,500.00	\$0.00	\$2,500.00	\$750.00	\$0.00	\$0.00	\$0.00	\$132.75	\$0.00	A&M	\$0.00
1.2.2.2.5.3	Procure VME Crate Processor	\$2,500.00	\$0.00	\$2,500.00	\$750.00	\$0.00	\$0.00	\$0.00	\$132.75	\$0.00	A&M	\$0.00
1.2.2.2.5.4	Procure Tracer	\$5,000.00	\$0.00	\$5,000.00	\$500.00	\$0.00	\$0.00	\$0.00	\$88.50	\$0.00	A&M	\$0.00
1.2.2.2.5.5	Test crate, PS, processor and Tracer	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2.6	<b>TDC Boards</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>A&amp;M</b>	<b>\$0.00</b>
1.2.2.2.6.1	Recycle TDC Boards	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2.6.2	Test TDC Boards	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	A&M	\$0.00
1.2.2.2.7	<b>EMTiming Level 2 Milestones</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.2.2.7.1	Prototype Testing Complete	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.2	CEM Splitters ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.3	PEM Harnesses ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.4	ASD->TDC Cables ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.5	All cables done and ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.6	ASD/TB ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.7	Downstairs components ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.8	VME Crate ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.9	TDC boards ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.10	Upstairs components ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.2.2.7.11	All EMTiming components ready for installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.3	<b>Calorimeter Milestones</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	.	<b>\$0.00</b>
1.2.3.1	PAC Review	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.3.2	Approval to spend Construction funds	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.3.3	Italian R&D Funding Approval	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.3.4	Full Italian Government Approval	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.3.5	End of Calorimetry Project: Level 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00
1.2.3.6	End of Calorimetry Project: Level 1	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	.	\$0.00