NOvA Project Status

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Working Group Meeting

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R&D, PED, LLP, Construction Table

NOvA Funding Profile

(in FY05 $)

Fund Type	Year FY06	FY07	FY08	FY09	FY11	FY12	FY13		Sum
R&D M&S ($M)	1.93 [a]	2.00 [b]	0.50 [c]	-	-	-	-		4.43
R&D SWF ($M)	2.80 [a]	2.80 [b]	[c]	-	-	-	-		5.60
PED ($M)	-	5.00 [d]	2.50 [e]	-	-	-	-		7.50
LLP ($M)	-	7.00 [f]	- [g]	-	-	-	-		7.00
Construction ($M)	-	-	20.00	50.00	50.00	50.00	10.00		180.00
Total by FY:	**4.73**	**16.80**	23.00	50.00	50.00	50.00	10.00	**Total:**	204.53

Notes:

a R&D funds in FY06 used for _____

need to get estimates of SWF -- SWF estimates for FY06,07 based on FTE estimate done for EPP2010 in 9/2005

b R&D funds in FY07used for _____

c R&D funds in FY08 used to complete Integration Prototype Near Detector

d PED funds in FY07 are used for final building design and value management studies

Final Site Access Road design effort estimate at $ 0.80 M

Final Building design effort estimated at $ 2.43 M

Final Outfitting, Site Logistics, & Management design effort estimated at $ 0.82 M

above 3 total to $ 4.05 M

Value Management Studies estimated at $ M from list below

Study #1:

e PED funds in FY08 are used for

f LLP funds in FY07 are used for access road construction & site clearing starting ~ April, 2007

This builds a 3.6 mile access road from the Ash River Trail to the NOvA site.

These funds would be in the form of a grant/cooperative agreement to the University of Minnesota

12/21 estimate is $ 5.13 M without indirects

g no LLP possible in FY08

Request for Quote Status

Status of NOvA RFPs

1/3/2006

Subject	vendor discussions	draft RFP	req in system	final approved RFP	RFPs sent	# sent to	Date for Response	# Responses	Evaluation Board
Extrusions (we provide resin)	PET, Sept 15 Extrutech, June Itasca, Sept 6	12-Aug	~ Aug 1	vers 1, Aug vers 2, Oct 7	26-Aug 10-Oct	10 11	23-Sep 16-Nov	3 3	26-Sep 21-Nov **Extrutech chosen**
mixed scintillator	Bicron, Nov 7 Eljen, Nov 8	17-Oct	21-Oct	20-Dec	22-Dec	2	**7-Feb**		
scintillator fluor mix (must mix with mineral oil, perhaps also with more pseudocumene)	Bicron, Nov 7 Eljen, Nov 8 Curtis Labs, Aug 25	20-Oct	21-Oct	20-Dec	22-Dec	3	**31-Jan**		
mineral oil (Technical grade) **mineral oil (Industrial NF)**	Penreco, Oct 25	6-Oct 18-Nov	21-Oct 28-Nov	10-Nov 28-Nov	11-Nov on hold	10	14-Dec	2 still testing	16-Dec
pseudocumene	Dixie Chemical, long ago but… Flint Hills, Nov 10 but …	17-Oct	21-Oct	12-Dec	15-Dec	13	**20-Jan**		
waveshifters	Curtis Labs, Aug 25	20-Oct	21-Oct	18-Nov	28-Nov	9	29-Dec	1	
ISO tanks, mixing	EXSIF, Nov 15 Superior Carriers, Dec 20								
waveshifting fiber	Kuraray, Oct 31 Bicron, Nov 3 Polhitech, no longer exists – Protvino, no contact	17-Oct	21-Oct	18-Nov	22-Nov	2	**23-Dec** **13-Jan**		

Status of RFIs

APDs	Hamamatsu, Aug 9	11-Nov	xxx	17-Nov	17-Nov	1	16-Dec	**1 "guess" on 11/29**	
raw PVC, decided 19-Dec to do RFI	Prime, Oct 17 Ashland (Georgia-Gulf), Sept 8, Nov 7 Aurora, Clairiant, Aug 23	6-Dec	xxx	21-Dec	22-Dec	5	**23-Jan**		

Where are we on Cost & Schedule?

Status of NOvA Cost & Schedule red= changes in last 2 weeks 1/3/2006

WBS	Initial talks with Bill?	List of Tasks	Durations of Tasks	Relationships among tasks	Assign labor resources	Assign M&S $ Resources	Add contingency	Provide L3 descriptions	Provide Task Notes
Site and Buildings	X	X	X	X	X	X		X	x
Scintillator	X	x	x	x				X	
Fiber	X	x						X	
Extrusions	X	x	x	x				X	
Extrusion Modules	X	x		x	x	x		X	
Electronics	X	x	x	x				X	x
DAQ	X	X	X	x				X	x
Near Assembly	X	X	X	X	X	X		X	x
Far Assembly	X	X	X	X	X	X		X	x

Bill's opinion on estimated time to finish: _____

Concentrating on Fiber, Extrusion Modules this week & next

Other Items

- CDR –
  - Need one more iteration from Gary on Scientific Requirements,
  - then ~ 125 pages ready for distribution in 1st draft, will broadcast
  - Estimating ~ 200 pages total when finished
- No Change from Dec 21:
  - Requirements Documents
  - Basis of Estimate
  - Preliminary Hazard Analysis
- Structure Problem
  - No additional info
    - **Recall on Dec 21 had tentative Safety Factor of 5.6** – up from 1.25
  - Engineering Review of conceptual design on Jan 10
    - Rich Stanek (chair), Tom Nicol, Russ Rucinski, Charlie Cooper, Pat Hurh

Update on Ash River / Orr Buyck

- **It's an easy choice**
  - Event rates, $\sin^2(2\theta_{13})$ FoM almost identical
  - **But mass hierarchy is VERY different**
    - Orr-Buyck would require an additional 12 kt to match Ash River
    - Hard for statistics to untangle 2 solutions, matter effect more powerful
  - Based on cost drivers
    - Ash River access ~ $ 1.4 M more
    - Orr-Buyck detector ~ of order $ 50 M more