

Water List

Milind Diwan

Agreed

- Single s4 proposal
- Coherent program in Neutrino physics: FNAL beam, Proton decay, diffuse SN, SN physics
- Common coring plan
- Depth and Location for LAR needs to be chosen (for S4 or after s4 ?)

Excavation

- Asked for: 15 cores, 2 parallel modeling efforts, Review team, pilot tunnel to top of cavern I and vertical holes.
- Additional engineering effort goes into S4.
what is it ?
- experimental and laboratory operation while excavation.

Facility issues

- power, water, access, code,
- safety: excavation+ installation+ operation.

PMT effort

- Larger pressure testing effort and modeling effort with international collaboration.
Need money.
- Larger PMT testing effort.
- Mobilization of alternate photo-sensor efforts. Do we give both choices in the proposal.
- Do we give R&D subcontracts to vendors to give us a schedule and a capital investment plan ?

Electronics effort

- Need baseline design. Plan: take it from SNO for the moment.
- Generate alternatives.

Detector design

- Setup engineering team for detector installation design.

Water system

- Can we get a water system design ? What about a standard design with Gd upgrade ?

Materials testing

- Should we make this a separate budget item ?

Software systems

- Must mobilize quickly on this. It was suggested getting this under the umbrella of computing side of NSF. Is this possible ?

My budget

Rule(\$0.3M = 1 FTE)

- Excavation: \$2M (asked already), \$2M (for detailed design)
- PMT testing: \$0.3M (asked), \$1-2M (needed)
- Electronics: \$1M (electronics design, many U)
- Water system: \$0.5M (at one place)
- Materials: \$1.5M (spread out over many U)
- Software system: \$2M(spread out over many U)

\$9M needed over 3 years