

**Committee Report**  
**NSLS-II Experimental Facilities Advisory Committee Meeting**  
**May 5-7, 2008**

**Members Present:**

A. Baron, SPring8  
M. Chance, Case Western Reserve University  
P. Dumas, SOLEIL  
Gene Ice, ORNL  
Andrzej Joachimiak, ANL  
Steve Kevan, University of Oregon  
Robert Lieberman, Stony Brook University  
Simon Mochrie, Yale University, Chair  
Mohan Ramanathan, ANL  
Ian Robinson, University College, London  
Brian Stephenson, ANL

**Members Absent:**

Jerry Hastings, SLAC  
Francesco Sette, ESRF

The NSLS II EFAC met for a marathon 2-day session starting on May 5 and running through May 7. Early on, the EFAC met Qun Shen, who will be shortly becoming NSLS-II Division Director for Experimental Facilities. The EFAC congratulates Qun and the NSLS for this outstanding addition, and outgoing Division Director John Hill, for the tremendous job he has done. We also congratulate NSLS-II on the addition of Andy Broadbent as Beamline Manager, and on other recent hires. We hope that this progress in hiring much needed staff will continue apace.

The EFAC was pleased to hear about the recent NIH Panel Meeting, convened to advise NIH on the capabilities and capacity needed for life sciences research at NSLS-II. We continue to urge that NSLS-II management work with NIH and the user community to ensure that life sciences beamlines in general and macromolecular crystallography in particular, be operational from day 1 of NSLS-II operations.

We also heard presentations concerning several Planning Workshops that have been held at Brookhaven over the last several months and presentations concerning NSLS-II Strategic Planning. The EFAC strongly endorses the creation of a strategic plan for NSLS-II and the proposed roadmap for achieving a strategic plan. Such a plan should build upon the strengths of scientific programs, already thriving at the NSLS, while responding to new opportunities made possible by the remarkable properties of the NSLS-II source, now and in the future.

Many of the Planning Workshops actively considered and responded to calls to explicitly include the properties of the NSLS-II in their vision for future science. Thus, much useful groundwork has already been carried out to provide input for this planning process. In addition, the recent NSLS review and the attendant beamline tenure reviews actively considered the scientific future of the relevant communities. Thus, a base for an effective planning process is firmly in place and all of the above information should be incorporated into the NSLS-II Strategic Plan.

Although we endorse, in principle, the notion that the NSLS II will call for LOIs against the strategic plan, the strategic plan and the LOI process should be flexible enough to be receptive both to new ideas and stakeholder (community, sponsor, and staff) input via the BAT/LOI and funding processes. Thus, the strategic plan should be a “living” document.

Beyond specifying NSLS-II beamlines and programs, the creation of an NSLS-II Strategic Plan must also provide a vision of how to connect NSLS-II programs and staff to NSLS programs and staff, i.e. it must address the NSLS-to-NSLS-II transition process, in a thoughtful and transparent fashion. The creation of such a plan will be a lot of work, but there are a lot of stakeholders, who should be willing to share the load! The EFAC requests to and looks forward to hearing more on this topic at our next meeting.

A general concern/question to emerge in EFAC discussions of several of the proposed beamlines (see below) is under what circumstances is it appropriate for NSLS-2 to construct and operate beamlines for particular special interest groups. This deserves detailed consideration and discussion, especially for beamlines that are not build with BES funds, because, while it may be that funding most naturally flows from a particular agency to do particular science, a basic tenet of the way US synchrotrons operate -- NSLS II included -- is to provide open access on a peer-reviewed, open-assess, proposal-by-proposal basis.

The majority of the EFAC’s time was devoted to hearing about and deliberating about a total of 11 Letters of Interest (LOIs), received by NSLS-II, authored by 11 prospective Beamline Advisory Teams (BATs). Seven LOIs concerned beamlines that are each a candidate to be constructed as one of the 6 NSLS II Project beamlines. The 4 additional LOIs were for beamlines, and suites of beamlines, that will require funding beyond the NSLS-II Project. The candidate project beamlines were also subject to mail review.

The criteria upon which the EFAC, judged each LOI were as follows:

- (1) Excellence of scientific case and engagement of the user community in its articulation.
- (2) Best-in-class performance, with characteristics well matched to the NSLS-II source (meets or exceeds relevant world-wide benchmarks, based on realistic simulations).
- (3) Technical feasibility of reaching scientific objectives.
- (4) Compatibility with overall scientific strategic vision for utilization of NSLS-II.
- (5) Quality of team.

The EFAC commends all of the BATs for the high quality of both their written LOIs and their in-person presentations to the EFAC. The EFAC’s specific comments about each LOI/BAT have been communicated to NSLS-II management, and to the BAT in question, but should not be made public. In the interests of transparency, we urge that future calls for LOIs occur on a regular schedule and, in order to keep the EFAC’s load manageable, on a first-come, first-served basis.