

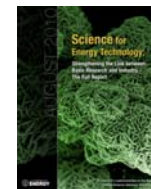
NEW INDUSTRY GATEWAY TO BES USER FACILITIES

Improves access to BES synchrotron and neutron facilities for industrial users

The BES-supported synchrotron and neutron scientific user facilities provide unique characterization capabilities that span the spectrum from discovery and use-inspired basic research all the way through to technology maturation and development. Although industry does make use of these facilities, it is clear that their impact could be greatly magnified through targeted industry access modes. A working group from the user facilities and industry has been formed to develop a consortium approach in which an industrial user can access the capabilities of all the facilities through a single online gateway.

A recent Basic Energy Sciences Advisory Committee (BESAC) report states that "BES-supported user facilities should seek to increase the level of industrial participation and use by:

- Refining access policies, proposal selection criteria, and time allocations to more fully engage industry-based clean energy research
- Investigating how beam lines and instrumentation could be adapted to the priority research directions and needs of industry
- Engaging beam-line scientists and support staff to provide greater assistance to industrial users solving critical challenges in development and deployment of clean energy technologies."



Engaging Industry

- Help industry learn about tools and resources.
- User facilities take a consortium approach, with each supplying beam lines that can be made available and appropriately supported.
- Make available high-throughput workhorse instruments that meet most industrial research needs.
- Legal and administrative issues that are being addressed:
 - DOE indemnification policies
 - Intellectual property agreements
 - Advance payment requirements
 - Access policies/proposal review criteria
- For an example of how some of these issues are starting to be addressed, see: J. Wang, et al., "Industrial research enhancement program at the National Synchrotron Light Source," Nuclear Instr. and Meth. in Phys. Res. A 649 (2011) pp. 19-21.

Working Group Formed in 2011

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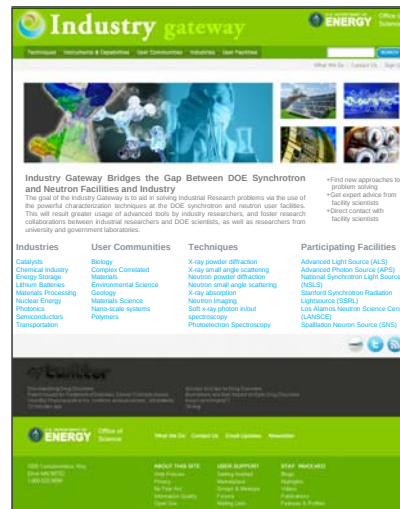
Improving Outreach to Industry

Unified Industry Gateway

The facility consortium plans a unified web page that guides industrial users to the most appropriate beam line for their research. Industrial users would come to the web site with a problem or need for a technique and be led to description of available beam lines and contact information to obtain beam time.

In the area of energy storage, relevant beamlines could include x-ray and neutron powder diffraction and small-angle scattering; high energy x-ray diffraction; x-ray absorption and neutron imaging; and soft x-ray photon in/out and photoelectron spectroscopies.

Website Under Development:



Targeted Workshops

Goals:

- Identify key materials and processing problems facing targeted areas.
- Identify unique tools at all BES synchrotron and neutron facilities that can be used to address critical materials issues.
- Highlight developments in the facilities for energy related research.
- Bridge the gap between practical problems and advanced tools and discoveries.

First Planned Workshop Will Focus on Energy Storage and Target:

- Industrial scientists interested in utilizing advanced characterization tools in solving technical problems.
- Scientists interested in seeing how their curiosity-inspired science could lead from science to technology.
- Industrial managers interested in learning how their companies could benefit from the access to advanced x-ray and neutron characterization techniques.
- Industrial, facility and government lawyers who are willing to work together in breaking down barriers for seamless access of users facility in a timely manner.

