

Advanced Photon Source

User Policy and Procedure

PROCEDURE	Page 1 of 7
ICMS Content ID:	APS_2284651
DNS #:	PSC-PPR-ADM-000-A022-000054
Revision #:	1
Issue Date:	9/10/24
Review Period:	1 year
Supersedes:	Rev. 0, 10/30/23
Last Reviewed:	9/10/24

BES Light Source Partnership Model

Effective date:

This policy will take effect when the APS restarts operations after the shutdown for installation of the APS-U multi-bend achromat lattice. (Action is required of the collaborations operating partner beamlines prior to returning to operations after the shutdown.)

Changes made in this revision:

- Author changed from D. Mills to J. Quintana
- Removed S. Davey and S. White-DePace as reviewers

Prepared by:

J. Quintana, PSC/DALD, Operations

Reviewed by:

C. Vanni, PSC/UAS Manager, APS User Programs

Approved by:

J. Quintana, Interim Deputy ALD for Science

Table of Contents

1. INTRODUCTION	3
1.1. Purpose.....	3
1.2. Scope.....	3
2. BES Partnerships	3
3. STANDARDIZED GUIDELINES FOR PARTNERS OPERATING BEAMLINES AT BES-SUPPORTED LIGHT SOURCES.....	4
4. APS-SPECIFIC PARTNERSHIP GUIDELINES.....	4
4.1. APS Guideline 1: General User Time on Partner-operated Beamlines	4
4.2. APS Guideline 2: Space Charges	5
4.3. APS Guideline 3: Beamline Staffing and Investment	6
4.4. APS Guideline 4: Tenure Reviews	6
5. FEEDBACK AND IMPROVEMENT	7

BES Light Source Partnership Model

1. INTRODUCTION

The construction and operation of light source beamlines by partnerships, supported by resources external to the Department of Energy (DOE) Office of Basic Energy Sciences (BES), is an essential element of the BES light sources program. BES has established new expectations for partner-operated beamlines and this policy presents the changes to the Advanced Photon Source's (APS) partnership framework, in conformance with DOE guidance.

This policy implements the new guidelines and will be in effect when the APS restarts operations after the shutdown for installation of the APS-U multi-bend achromat lattice. Each CAT/Partner beamline must have an update management plan that addresses the new standards, approved by the APS, prior to returning to operations.

1.1. Purpose

This policy presents the changes to the APS partnership framework to bring it into alignment with DOE requirements.

1.2. Scope

The requirements detailed below supersede existing APS user policies and procedures to the extents stated in this policy. APS policies and procedures not explicitly addressed here remain unchanged.

This policy sets forth the rules under which Collaborative Access Teams (CATs) must comply as partners at the Advanced Photon Source. CATs are defined as partnerships that receive all or most of the funding for the operation of a sector/beamline from a source other than the APS operations budget (although the CAT staff may be APS employees). CATs will fall into the one or more of the partnership categories described in the next section.

The partnerships described in this document are long-term agreements that are typically for the construction and operations of all or a part of a beamline. This document does not cover limited-term partnerships such as Partner User proposals, Project proposals, Approved Programs, etc.

2. BES Partnerships

Partnerships to construct and operate beamlines at the light sources fall into one or more of the categories below:

- A. Partnerships funded by an individual institution or a consortium of institutions to support their membership's research programs. These include partnerships funded by a non-BES government agency to support scientific communities, including those operating as National User Facilities (NUFs)
- B. National security-driven partnerships
- C. Industry partnerships

3. STANDARDIZED GUIDELINES FOR PARTNERS OPERATING BEAMLINES AT BES-SUPPORTED LIGHT SOURCES

Summary of guidelines for partnerships (each detailed below):

- General Users:
 - At least 50% of the time on each consortium or NUF beamline will be made available to General Users (GUs).
 - GU time will be negotiated for national security and industrial partnerships.
- Members from within the partnership may compete for the GU time on their beamline(s) through the facility GU program.
- The APS will pay space charges for beamlines/sectors that provide more than 50% of beam time is to GUs.
- Partners must meet staffing and investment levels to maintain the beamline(s) and modernize them regularly to support a scientifically competitive GU program on the beamline(s).
- On-site partner employees must meet the requirements to obtain access to the host facility.
- To continue to operate a beamline(s)/sector(s) at the APS, the partnerships scientific productivity is subject to reviews. Continuing partnership tenure is contingent on a successful review.
- Proprietary GU proposals performed on partner-operated beamlines will be charged the standard facility proprietary beam time rate, to be paid to the facility, with no surcharges added by the partner.

4. APS-SPECIFIC PARTNERSHIP GUIDELINES

4.1. APS Guideline 1: General User Time on Partner-operated Beamlines

Light source management may make exceptions to this guideline for specific cases with the approval of their Scientific Advisory Committee (SAC).

After the restart of the upgraded APS, at least 50% of the time on each beamline will be made available to General Users (GUs). This reduction of the percentage of membership

beam time can be recovered for Category A partnerships as the partner members can now apply for time through the facility-managed GU program. For industry-based and national security-based partnerships, alternative guidelines given below may be followed.

National Security-driven Partnerships

- General User time will be negotiated as part of the initial agreement between the facility and the partner at the implementation of this partnership policy and will be dependent on specific national security program requirements and expected demand from the General User community. The proposed set aside of General User time will be reviewed and approved by an *ad hoc* committee established by the facility seeking concurrence from the facility's SAC. General User time will be re-evaluated at the Partner's tenure review.
- Must meet staffing and investment levels (see Guideline #3).
- Must take part in tenure reviews (see Guideline #4) using prespecified program-specific review criteria for partnerships that fall under this category.

Industry Partnerships

- These are partnerships where the industrial partner(s) are funding the full operating cost of the sector/beamline operation.
- General User time will be negotiated as part of the initial agreement between the facility and the partner at the implementation of this partnership policy and will be dependent on the specific program proposed by the partner and expected demand from the General User community. The proposed set aside of General User time will be reviewed and approved by an *ad hoc* committee established by the facility with the concurrence of the facility's Scientific Advisory Committee (SAC). General User time will be re-evaluated at the Partner's tenure review.
- Must meet staffing and investment levels (see Guideline #3).
- Must take part in tenure reviews (see Guidelines #4) using prespecified program-specific review criteria for partnerships that fall under this category.

4.2. APS Guideline 2: Space Charges

The facility will pay for space charges - if applicable at the host facility and pending funding availability from the BES-provided operations budget - for partner's labs and offices for those partners that are providing at least 50% of their beam time to GUs. For those partnerships where agreements have been made with facility management to provide less than 50% for GUs, the partner will pay for all space charges.

4.3. APS Guideline 3: Beamline Staffing and Investment

The goal of this guideline is to ensure that the staffing and investment into the beamline(s) is at an adequate level to effectively utilize the beam time and support a scientifically competitive GU program.

Effort costs for beamline staff will be borne by the partner. The expectation for staffing is at least two staff (FTEs) per beamline. However, support level will be benchmarked against similar beamlines at the host facility, if possible. Partners can make the case that two FTEs per beamline is not necessary by considering the nature of the experiments and end-stations in question. This will be explicitly evaluated in tenure reviews. The employer of the beamline staff may be either the partnership or facility. Staffing levels should be estimated in the partner's management plan or other relevant document required by the host facility.

Partner investment into the beamline(s) will be sufficient to modernize the beamline(s) regularly to support a scientifically competitive GU program on the beamline(s). This metric will be explicitly evaluated in the tenure reviews. Fractional partnerships shall be scaled using these numbers as a basis. For new beamlines, depreciation will only take effect five years after construction, i.e., no additional investment would be required initially unless it is found that the new beamline is lacking vital components to become fully operational.

4.4. APS Guideline 4: Tenure Reviews

Tenure reviews of the partnership will be performed/organized by the light source management to evaluate the scientific productivity of the beamline/sector. The review cycle will be determined by the needs of the facility but will be at least once every five years.

In addition to past performance, an updated scientific scope of work, expected to be performed at the sector/beamline(s) for the next appraisal period, must also be submitted with each review.

Should the review results find the operation of the partnership (including productivity) to be less than satisfactory, the partnership will be re-reviewed within one to two years of the initial review (exact interval determined by the facility SAC) to assess the progress of the corrective actions from the review. If the re-review finds that inadequate progress has been made, the partnership will be given notice that the partnership will terminate within the next year.

The facility will monitor relevant performance metrics of the beamlines on an annual basis and reserve the right to call additional reviews if necessary and/or seek recommendations from relevant SAC.

PROCEDURE	Page 7 of 7
ICMS Content ID:	APS_2284651
DNS #:	PSC-PPR-ADM-000-A022-000054
Revision #:	1

5. FEEDBACK AND IMPROVEMENT

If you are using this procedure and have comments or suggested improvements for it, please go to the [APS Policies and Procedures Comment Form](#) * to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure ([APS_1408152](#)).

* <https://www.aps.anl.gov/Document-Central/APS-Policies-and-Procedures-Comment-Form>