Status

The Committee of Visitors (COV)

Office of High Energy Physics Facilities Division to

the High Energy Physics Advisory Panel

May 10, 2024

Young-Kee Kim Chair, Committee of Visitors

Charge



12 February 2024

Prof. Young-Kee Kim, Louis Block Distinguished Service Professor Department of Physics and Enrico Fermi Institute University of Chicago Eckhardt, 5720 S. Ellis Ave. #201 Chicago, IL 60637

Dear Young-Kee,

Thank you for agreeing to chair the 2024 Committee of Visitors (COV) review of the Department of Energy (DOE) High Energy Physics (HEP) Facilities Division. The review should be conducted in accordance with the Guidance for DOE Office of Science Committee of Visitors Reviews, found at the following URL: https://science.osti.gov/DDSP/Committees-of-Visitors.

The COV subpanel is asked to assess the operations of the HEP Facilities Division during fiscal years 2016 through 2022. As noted in the guidance, the subpanel should assess: (1) the efficiency and quality of the processes used to solicit, review, recommend, document, and propose actions, and to monitor active awards, projects and programs; and (2) the quality of the resulting portfolio, including its breadth and depth and national and international standing. The COV should comment on the effectiveness of DOE implementation of the long-term goals and priorities recommended in the 2014 report of the Particle Physics Project Prioritization Panel (P5). Are the recommendations of the 2015 P5 and the 2016 COV being reasonably followed? The COV should also identify any significant issues that it is not able to consider appropriately within the limited timespan, but that deserve subsequent consideration.

The results of this review should be documented in a report with findings, comments, and recommendations clearly articulated. The report should be completed for consideration by HEPAP at its May 9-10, 2024 meeting and submitted to the agency shortly thereafter. I appreciate the COV's willingness to take on this important activity and look forward to its final report.

Sincerely,

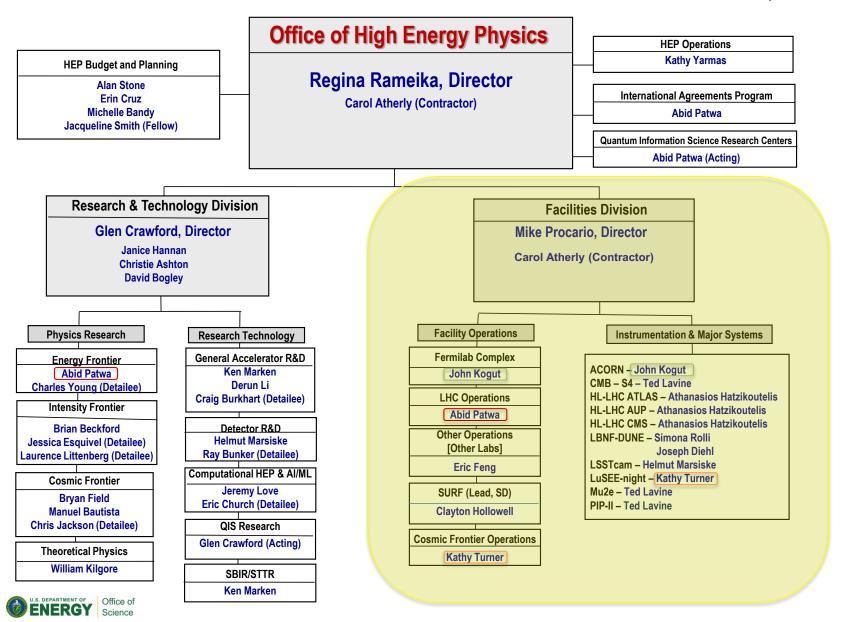
Sally Seidel

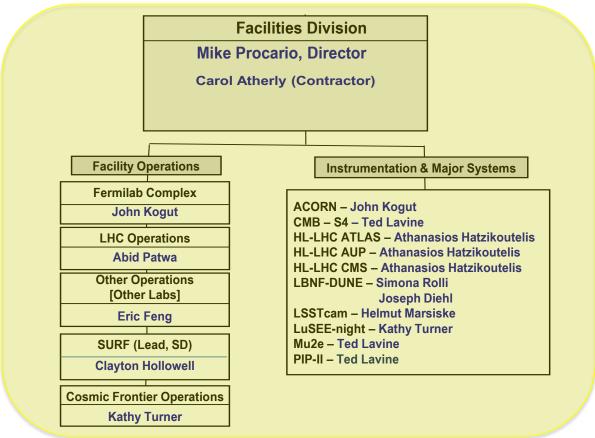
Sally Serdel

Professor of Physics, University of New Mexico Interim Chair, High Energy Physics Advisory Panel

Office of High Energy Physics COV

Year	Research Division	Facilities Division [Projects, Facilities Operations]
2007	X	X
2010	X	X
2013	X	X
2016	X	X
2020	X	
2024		This Review (FY 2016 – FY 2022)





Operations

- Kathy Turner
- John Kogut
- Abid Patwa
- Clayton Hallowell (2020)
- Eric Feng (2023)

Projects

- Ted Lavine
- Simona Rolli
- Athans Hatzikoutelis (2022)
- Joe Diehl (2023)

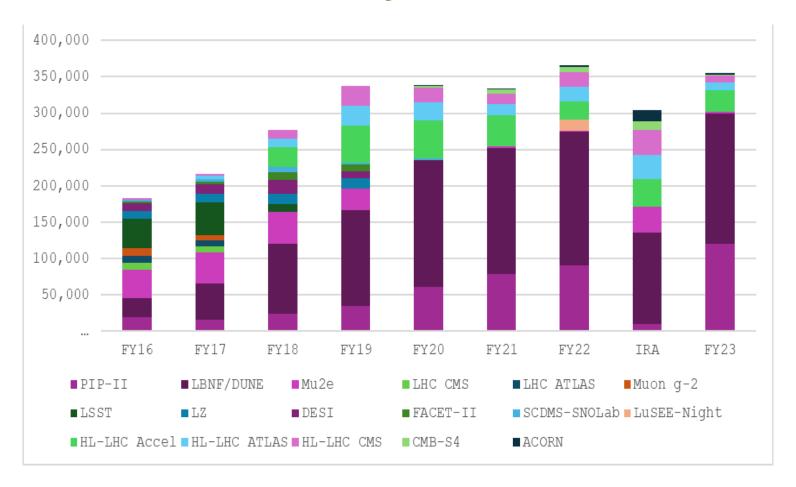
Detailees

- None currently
- Past Detailees
 - Bill Wisniewski, SLAC for LBNF/DUNE (part time)
 - David Lissauer, BNL for LBNF/DUNE (full time)
 - Steve Peggs, BNL for PIP II (part time)
 - Michael Harrison, BNL for PIP II (part time)

Projects & Operations (2024 COV)

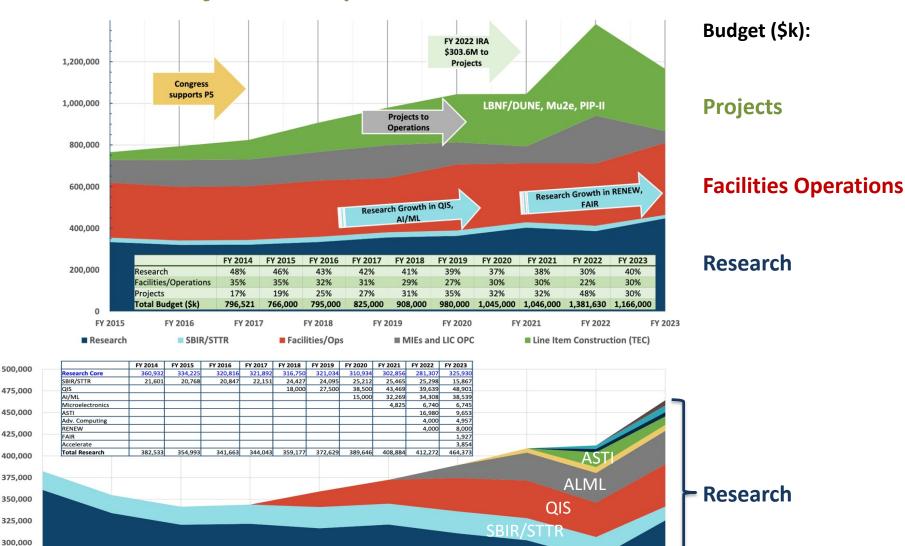
Project	CD-4 Date	Project TPC (US)	Sub-Project TPC (US)	Projects	Operations
			3ub-110ject 11 c (03)		•
BELLE II	July 2016	\$15.5M		X	X
Muon g-2	April 2018	\$46.4M		X	X
LHC CMS Upgrade LHC ATLAS Upgrade	June 2019 August 2019	\$33.2M \$33.2M		X X	X X
DESI	May 2020	\$54.2M		X	X
LZ	November 2020	\$53.6M		X	Х
FACET-II	September 2021	\$24.5M		X	Х
LSSTCam / Rubin Observatory	September 2021	\$165.3M		Х	Х
SuperCDMS	2023	\$23.4M		X	
LuSEE-Night		\$15.0M		Х	
HL LHC Accelerator HL LHC ATLAS HL LHC CMS		\$266M \$200M \$200M		X X X	
Mu2e		\$315M		X	
PIP-II		\$978M		Х	
LBNF/DUNE		\$3,277M	FSCF-EXC \$644M FSCF-BSI \$211M FDC \$1,119M NSCF-B \$1,103M ND \$200M	X X X X	
ACORN		\$100M-\$142M		X	
CMB-S4		\$300M-\$400M		X	
Sanford Underground Research Facility					X
Fermilab Facilities (Accel, Det.s, Comp.)					X

Projects



HEP funding (\$k) for projects by FY from FY 2016 through FY 2023 in Actual Year. Note the Inflation Reduction Act (IRA) funding in FY 2022 as a separate bar.

Projects, Operations, and Research



Research Core

FY 2021

FY 2022

FY 2023

■ Accelerate

FY 2020

■ Advanced Computing

FY 2019

FY 2018

Microelectronics

275,000 250,000

FY 2014

FY 2015

SBIR/STTR

FY 2016

QIS

FY 2017

■ AI/ML

COV Membership

Panel	Name	Institution: Current / Recent Past	Roles
	Young-Kee Kim	University of Chicago	COV Chair
Projects	Steven Kahn	UC Berkeley / SLAC, Stanford	Projects Subpanel Chair
	Alec Habig	University of Minnesota Duluth	Projects Panelist
	Allison Lung	JLab	Projects Panelist
	Ritchie Patterson	Cornell University	Projects Panelist
	Frank Zimmermann	CERN	Projects Panelist
Operations	Sergei Nagaitsev	BNL / Fermilab, Jlab	Operations Subpanel Chair
	Sally Dawson	BNL	Operations Panelist
	Brenna Flaugher	Fermilab	Operations Panelist
	Craig Group	University of Virginia	Operations Panelist
	Benjamin Nachman	LBNL	Operations Panelist

COV Schedule: Meetings / Report

Feb. 5, 2024 (Organizational)

Virtual meeting

March 11-13, 2024

 In-person meeting in Germantown

- April 10, 2024
 - Virtual meeting



Brenna Flaugher

COV Schedule: Meetings / Report

- Feb. 5, 2024 (Organizational)
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Remarkable Dedication





COV Schedule: Meetings / Report

- Feb. 5, 2024 (Organizational)
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- March 11-13, 2024
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- April 10, 2024
 - Virtual meeting
- May-June, 2024
 - Virtual meetings
 - Fermilab Facilities Operations (Accelerators, Detectors, Computing)
 - Finalize the Report

Remarkable Dedication



