

2023 Long Range Plan Recommendations

1. Capitalize on opportunities for scientific discovery made possible by previous investments:
 - **Increasing the research budget** that advances the science program through support of theoretical and experimental research across the country, thereby expanding discovery potential, technological innovation, and workforce development to the benefit of society.
 - **Continuing effective operation of the national user facilities** ATLAS, CEBAF, and FRIB, and completing the RHIC science program, pushing the frontiers of human knowledge.
 - **Raising the compensation of graduate researchers** to levels commensurate with their cost of living—without contraction of the workforce—lowering barriers and expanding opportunities in STEM for all, and so boosting national competitiveness.
 - **Expanding policy and resources to ensure a safe and respectful environment for everyone**, realizing the full potential of the US nuclear workforce.

2023 Long Range Plan Recommendations:

2. As the highest priority for new experiment construction, we recommend that the United States lead an international consortium that will undertake a **neutrinoless double beta decay** campaign, featuring the expeditious construction of ton-scale experiments, using different isotopes and complementary techniques.
3. We recommend the expeditious **completion of the EIC** as the highest priority for facility construction.
4. We recommend capitalizing on the unique ways in which nuclear physics can advance discovery science and applications for society by investing in **additional projects and new strategic opportunities**.

Nuclear Science Advisory Committee (NSAC)

- NSAC is a **FACA Committee** – governed by the Federal Advisory Committee Act
 - Linda Horton is the designated federal official
- Members are chosen by DOE and NSF – they go through many layers of approval
- Members are **Special Government Employees** – yearly ethics training and COI disclosure
- NSAC responds to charges from DOE and NSF
- NSAC **meetings are open to the public** and include a public comment period
- NSAC **charges and reports** are posted: <https://science.osti.gov/np/nsac>
 - Links to Charges/Reports
 - NP Committee of Visitors

Facilities Charge

On Dec. 1, 2023, the Office of Science charged NSAC (and all other federal advisory committees) to

Consider what new or upgraded facilities in your disciplines will be necessary to position the Office of Science at the forefront of scientific discovery.

For projects of > \$100 million in the next decade, evaluate:

- The potential to contribute to world-leading science in the next decade.
- Readiness for construction

A similar charge was
handled by NSAC in 2013

Projects:

- Electron-Ion Collider (EIC)
- High-Rigidity Spectrometer (HRS)
- Ton-Scale Neutrinoless Double-beta Decay (TS-NLDBD)
- Project 8
- Facility for Rare Isotope Beams Energy Upgrade (FRIB400)
- Solenoid Large Intensity Device (SoLID)
- Electron-Ion Collider (EIC) Detector II

Report: <https://science.osti.gov/-/media/np/nsac/pdf/reports/2024/NSAC-Facilities-Report-Posted.pdf>

DOE **Committee of Visitors** Charge – Facilities & Project Management Division

At the September 12, 2024 NSAC meeting a new COV charge was presented. The Office of Science charged NSAC to assemble a Committee of Visitors to review the Facilities & Project Management Division (FD). Review fiscal years 2019 - 2024

Committee Membership

Dave Hertzog (Chair)	U Washington
Mary Convery	Fermilab
Kelly Chipps	ORNL
Calvin Howell	Duke
Christine Aidala	U Michigan
John Arrington	LBNL
Eric Brown	LANL
Saskia Mioduszewski	Texas A&M
Brent Vandevender	PNNL

Timeline

Kickoff Meeting	Jan 31, 2025
Meeting at DOE	March 10-11, 2025
Report Due	Fall NSAC meeting

International Benchmarking Charge

On December 19, 2024, DOE and NSF delivered a new charge to NSAC. This is a charge that the other DOE Office of Science Advisory Committees completed a few years ago.

The text of the charge and the membership of the subcommittee that has been formed to address this charge will be sent out by email.

Essentially, we are asked to produce a report that expands on the LRP with respect to the international context for nuclear physics. We are being asked to

- (1) evaluate how the US can maintain and expand its international partnerships,
- (2) identify areas where the US has a leadership position or could aspire to that, via its unique or world-leading capabilities
- (3) address issues of recruiting and retaining talented researchers from all over the world

International Benchmarking Committee Membership

Ian Cloet (Chair)

Jeff Blackmon

Vincenzo Cirigliano

Raffaella Da Vita

Evie Downie

Alexandra Gade

Haiyan Gao

Edmundo Garcia

Oliver Kester

Andreas Kronfeld

Krishna Kumar

Kyle Leach

Argonne

LSU

INT

Jefferson Lab

GWU

MSU/FRIB

Duke

Chicago State

TRIUMF

Fermilab

UMass

CO School of Mines

Jen-Chieh Peng

Daniel Phillips

Dinko Pocanic

Sofia Quaglioni

Lijuan Ruan

Martin Savage

Phiala Shanahan

UIUC

Ohio University

UVA

LLNL

BNL

U Wash

MIT

Other News

DOE Office of Science cancelled all spring advisory committee meetings
NSAC meeting planned for March 31, 2025 will be rescheduled

NSAC Membership as of January 2025

Christine Aidala

Manuel Calderon de la Barca Sanchez

Kelly Chipps

Ian Cloet

Zohreh Davoudi

Gail Dodge

Gwen Grinyer

Austin Harton

Calvin Howell

Yordanka Ilieva

Dean Lee (APS ex-Officio)

Jorge Lopez

Andre Luiz de Gouvea

Lijuan Ruan

Francesca Sammarruca

Carol Scarlett

Daniel Tapia Takaki

Derek Teaney

Justin Walensky (ACS ex-Officio)

Fred Wietfeldt