

EIC Project Planning Update

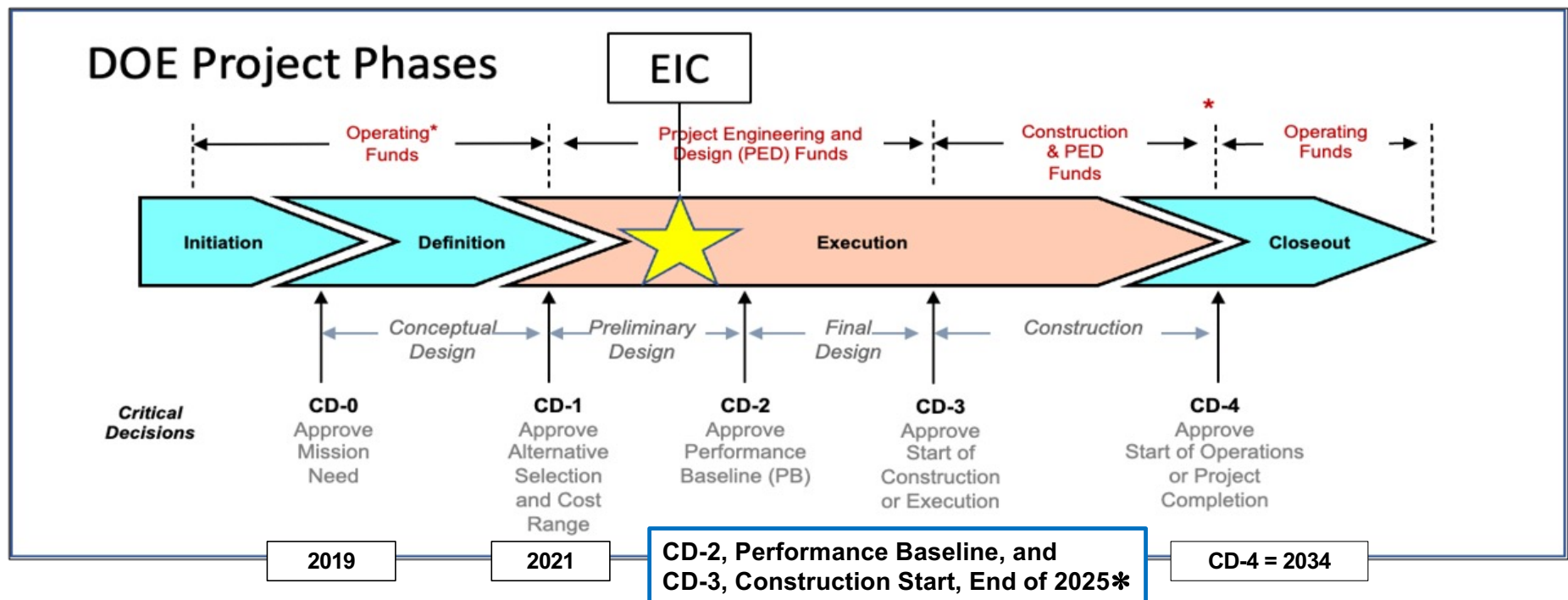
Jim Yeck
EIC Project Director

EIC Users Group Meeting
July 24, 2024

Electron-Ion Collider



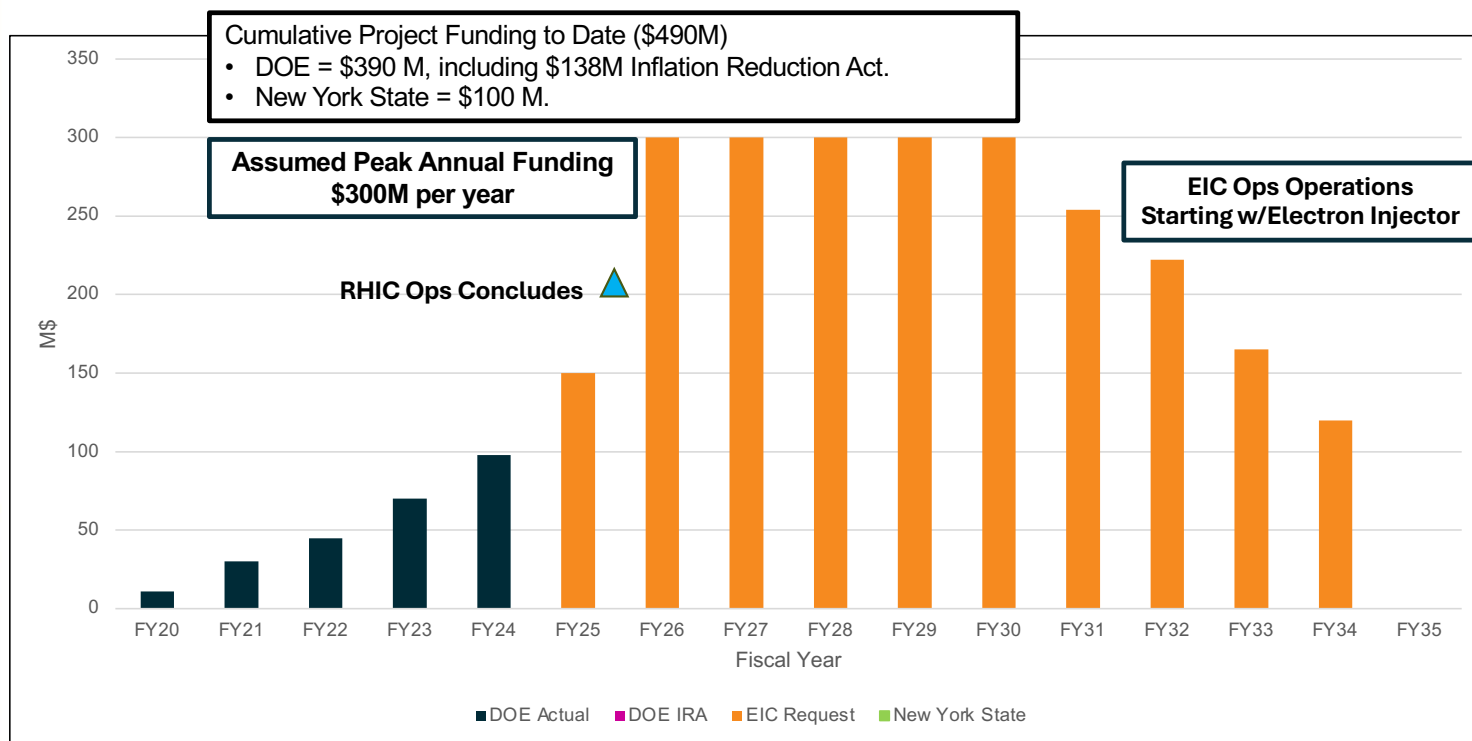
DOE EIC Critical Decision Milestones



- CD-3A, Long Lead Procurement, approved March 2024. Excellent use of IRA funding.
- CD-3B, Long Lead Procurement, approval planned for March 2025.
- CD-2, Project Performance Baseline, requires a DOE approved annual funding profile.

* FY25 and FY26 funding will impact CD-2 and CD-3 milestone dates.

EIC Project Funding Plans



FY2025 Funding TBD

EIC Plan: \$150M
 DOE Request: \$113M
 House: \$128M
 Senate: TBD

FY2026 Funding TBD

- RHIC operations concludes end of 2025.
- EIC project transitions to construction.
- Reduced RHIC operations funding maintains the injector complex and the removal/repurposing of equipment.

Annual Funding Plan Prior to FY25 PBR (\$M)

FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	Total
11	30	183	70	98	150	300	300	300	300	300	254	222	165	120	2,803

Project Planning Update

The EIC project is preparing plans for completing the design, construction, and commissioning of the EIC facility. Plans must satisfy the DOE approved mission need, and be based on realistic assessments of technical readiness, cost, schedule, and risk.

There are three primary project planning goals/constraints:

1. Annual EIC project funding requirements should not exceed \$300M per year,
2. Total Project Cost less than \$3B, and,
3. Deliver science within ten years after RHIC shuts down.

The annual funding limitation may require the phased delivery of the accelerator, which is more than 85% of the DOE funded project scope. It is possible to start the science program in less than ten years with electron-ion collisions at the conclusion of the first phase. The second phase would complete the scope required to achieve the DOE approved mission need. The two phases would overlap.

Project Planning Update (2)

The plan to phase the delivery of the EIC project, i.e., two phases, is consistent with the DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets, and the DOE Critical Decision process. The current implementation of the DOE Order for large, complex projects uses subprojects. The two EIC project phases would result the following subprojects:

EIC Early Science Subproject [Accelerator Phase I and Detector Phase I]; and,

EIC Full Capability Subproject [Accelerator Phase II and Detector Phase II].

The priority would remain to secure DOE approvals of CD-2, Performance Baseline, and CD-3, Construction Start, in the time frame that RHIC operations concludes. The actual timing is dependent on funding. A realistic goal is DOE CD-2/3 approval for the EIC Early Science Subproject by the end of 2025.

A Project Strategy Meeting is planned for August 21 to further define construction plans.

Conclusion

- The preceding slides provide context for the presentations that follow in the EICUG First Session:

Report from the Accelerator WG – Qiong Wu

The early EIC physics program: discussion – Elke Aschenauer, Rolf Ent

- Further elaboration of the project status and updates in the afternoon Joint Session:

Report from the EIC Project – J. Yeck