



Exceptional service in the national interest

The NCSP at Sandia in FY23

David Ames

NCSP Technical Program Review

February 20, 2024

Hosted by Brookhaven National Laboratory

SAND2024-01385PE

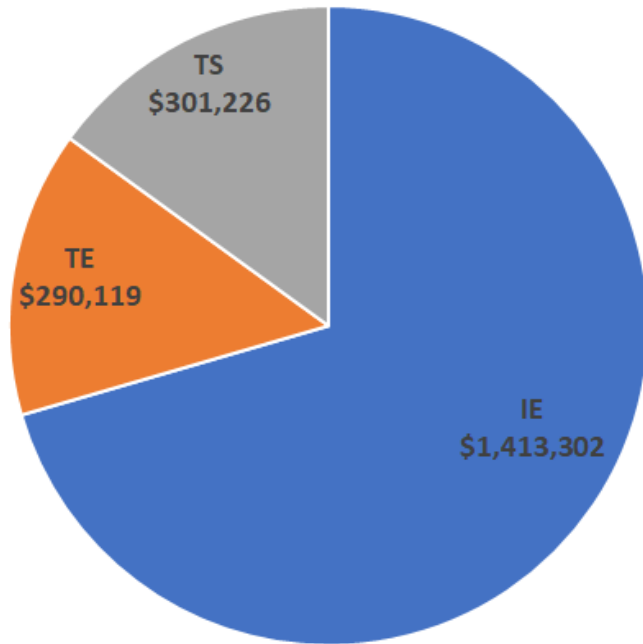
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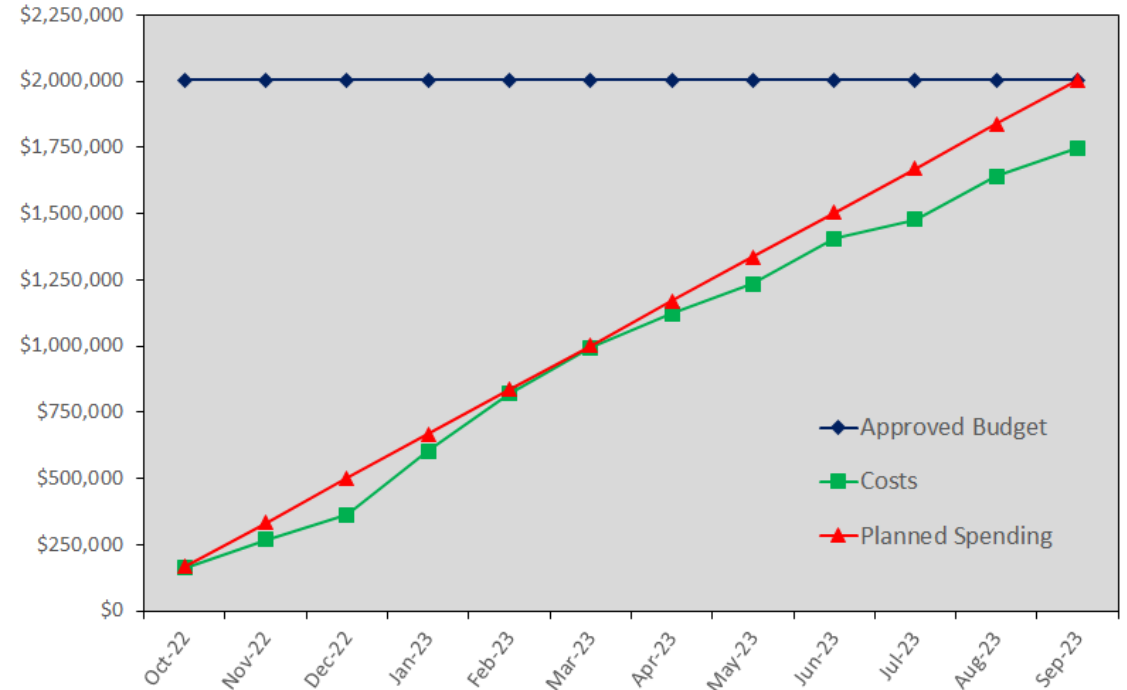
NCSP Budget and Spending at Sandia

Sandia FY23 Budget by Element



Element	FY22 Carryover	FY23 Carryover
IE	\$188,302	\$132,842
TE	\$95,119	\$88,831
TS	\$11,226	\$36,049
Total	\$294,647	\$257,722

FY23 Sandia NCSP Spending

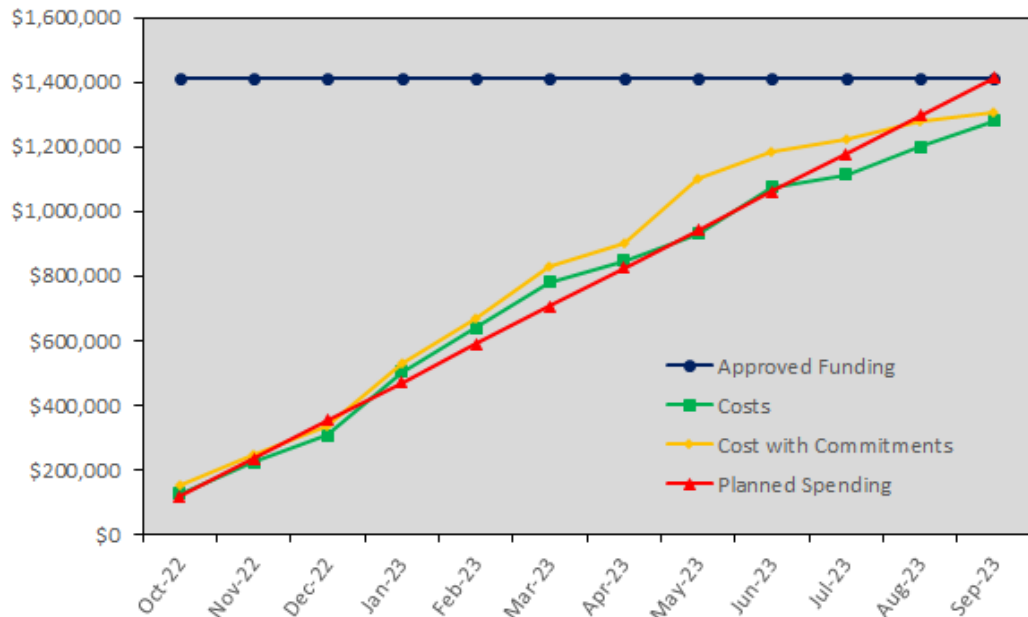


FY22 Carryover	\$294,647
FY23 Budget	\$1,710,000
FY23 Approved Budget (inc. C/O)	\$2,004,647
FY23 Actual Spending	\$1,746,925
FY23 Carryover	\$257,722



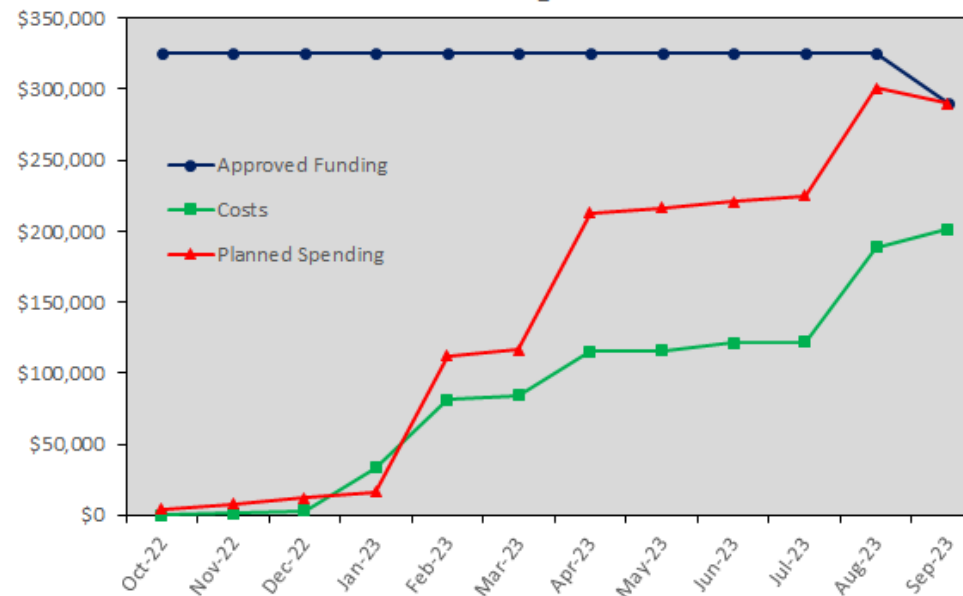
Spending Details

Sandia IE - Integral Experiments

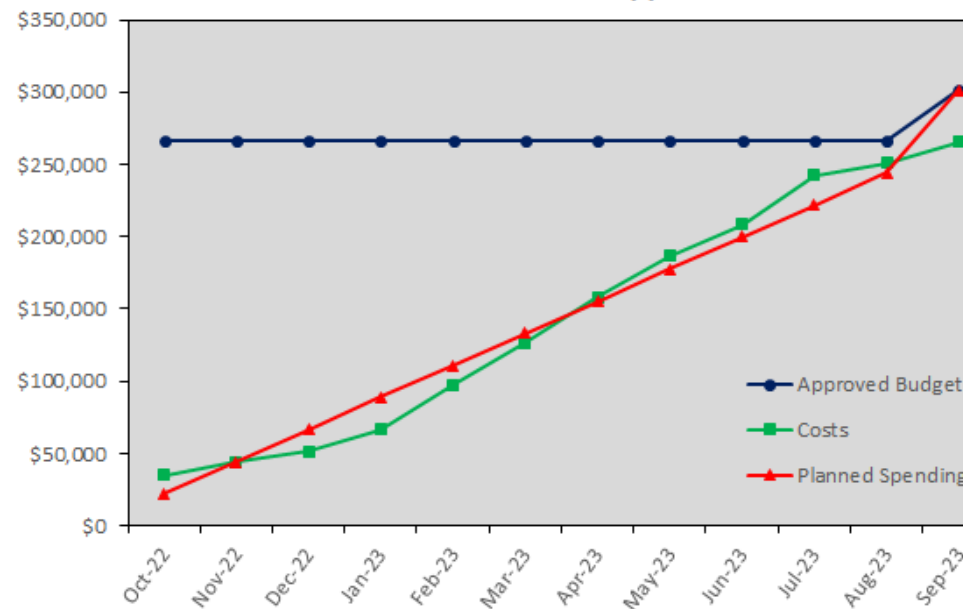


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IE	\$188,302	\$132,842
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Sandia TE - Training & Education



Sandia TS - Technical Support





NCSP Funding Details

Element	Task	FY23 Total	Task Funding	Description	Spent	FY23 Carryover
Total		\$2,004,647		NCSP Funding at Sandia	\$1,570,653	\$257,722
IE		\$1,413,302		Integral Experiments	\$205,935	\$132,842
	C/O		\$188,302	FY22 Carryover		
	IE1S1		\$400,000	Fixed Cost Items		
	IE1S2		\$800,000	Programmatic Work		
	IE2		\$25,000	Support for NCERC Safety		
	IE3		\$0	CX Control System Upgrade		
	IE4		\$0	Support for AFRRRI Characterization		
TE		\$290,119		Training & Education	\$201,288	\$88,831
	C/O		\$95,119	FY22 Carryover		
	TE1		\$230,000	Prepare for and Conduct Hands-On Training		
TS		\$301,226		Technical Support	\$265,177	\$36,049
	C/O		\$11,226			
	TS3		\$80,000	Support Planning for Key Staff		
	TS12		\$175,000	CEdT Manager Support		



Integral Experiment Requests at Sandia

IER	Description	Started FY23	Ended FY23	FY23 Spending
304	Temperature Dependent Critical Benchmarks	CED-3a	CED-3a	<\$1k
305	Critical Experiments with UO2 Rods and Molybdenum Foils	CED-3b	CED-4b (complete)	\$258k
441	Epithermal HEX Lattices with SNL 7uPCX Fuel for Testing Nuclear Data	CED-3a	CED-3a	\$448k
452	Inversion Point of the Isothermal Reactivity Coefficient	CED-1	CED-1	\$7k
484	Dosimetry Collaboration with Armed Forces Radiobiology Research Institute (AFRRI)	CED-3a	CED-3a	\$0
518	High Multiplication Subcritical (Multiplicity) Benchmark Experiments	CED-3b	CED-4a	\$13k
523	Beryllium Oxide Critical Experiments	CED-1	CED-1	\$57k
554	Neutron Absorber Plate Experiments Using the 7uPCX Fuel	CED-1	CED-2	\$8k
574	Godiva Characterization	CED-3a	CED-4a	\$140k
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David Ames (SNL) Talk Tomorrow



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David Ames (SNL) Talk Tomorrow

Augie Chapa (SNL) Talk Procurement Issues



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Aaron Tamashiro (LLNL) Talk Tomorrow



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Jesse Norris (LLNL)
Talk Tomorrow



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Mac Cook (SNL) Talk Tomorrow



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Mathieu Dupont
(ORNL) Talk Tomorrow



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Sandia Highlights

Completed IER 305 CED-3b

- Completed five benchmark configurations
- Performed reproducibility experiments

Completed IER 305 CED-4a

- Submitted to the ICSBEP Technical Review Group

Completed IER 305 CED-4b

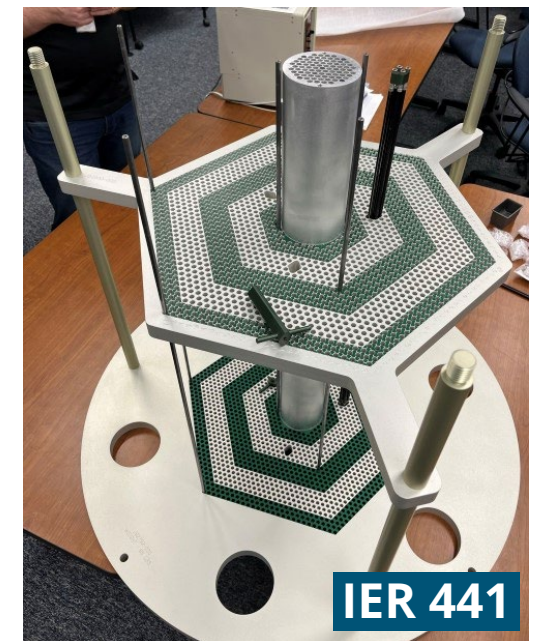
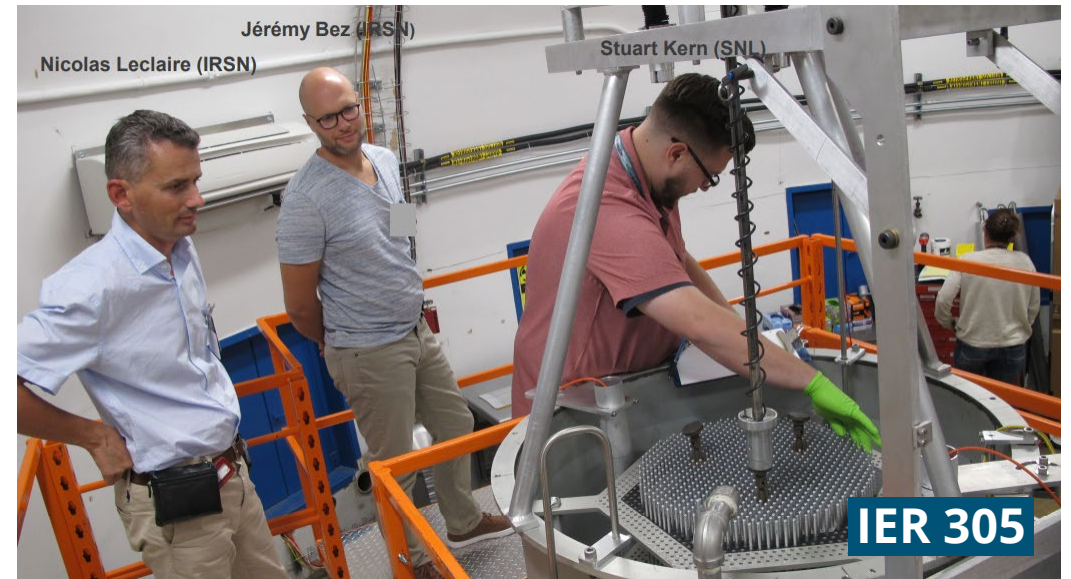
- Approved for publication as LCT-111

Navigating the IER 441 Procurement Process

- Lessons learned and gained valuable experience
- Submitted and awarded all RFQs

Worked with ORNL to use IER 441 grid plates for IER 554

- Significantly reduce cost, time, and effort associated with CED-3a





Sandia Highlights

NCSP Hands-on Courses

- Two for NCS Engineers
- One for Managers/CSOs
- Utilized the National Museum of Nuclear Science & History
 - Alleviate Badging/DBIDS wait times on Monday morning
 - Includes access to museum exhibits (1940s LANL critical assembly display)
- Started taking photos of students loading fuel





This work was supported by the NCSP,
funded and managed by the NNSA for DOE

