SC Governors Nuclear Advisory Council

October 15, 2024 – Savannah River Site

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SRS is owned by the U.S. Department of Energy.

Federal agencies at SRS include:

National Nuclear Security Administration

Department of Energy: Savannah River Operations Office

U.S. Forest Service-Savannah River

U.S. Army Corps of Engineers

1950

President Harry S. Truman authorizes construction of SRS

Six towns were moved to make way for the Savannah River Plant (now SRS).

$3.8

billion
annual budget

12,700

current employees
(contractors and federal agencies)

5

reactors originally constructed

Also, two chemical separations plants, a heavy water extraction plant, a nuclear fuel and target fabrication facility, a tritium extraction facility and waste management facilities.

310

square-mile site
Located on the Savannah River, which borders South Carolina and Georgia. SRS covers 198,046 acres, including parts of Aiken, Barnwell and Allendale counties in South Carolina.

6

major contractors

Savannah River Nuclear Solutions, LLC
Management and operations of SRS

Battelle Savannah River Alliance, LLC
Management and operations of Savannah River National Laboratory

Savannah River Mission Completion, LLC
Liquid waste operations

Ameresco
Biomass Cogeneration Facility

Centerra Group, LLC
SRS security

University of Georgia
Savannah River Ecology Laboratory

The ‘City’ of SRS

fire department and emergency services

230 miles of roads and first South Carolina cloverleaf

medical facilities

information technology networks

weather center

biofuels plant for power generation

locomotive and train tracks

water and electrical utilities

To support operations, SRS maintains an infrastructure similar to a small city.

SRS Missions

- Tritium operations and extraction
- Nonproliferation support
- Foreign fuel receipts
- Pit production mission
- Surplus Pu disposition

- Management, stabilization and disposition of nuclear materials
- Management and disposition of solid, liquid and transuranic wastes
- Spent fuel management
- Environmental remediation and cleanup

- Other federal agencies
- Other DOE sites
- Private industry
- Other minor entities

Who's at SRS

Savannah River Nuclear Solutions
Management and Operations

Battelle Savannah River Alliance
Management and Operations of the Savannah River National Laboratory

Savannah River Mission Completion, LLC
Liquid Waste Operations

Centerra
SRS security

University of Georgia
Savannah River Ecology Laboratory

U.S. Forest Service–Savannah River
Federal entity

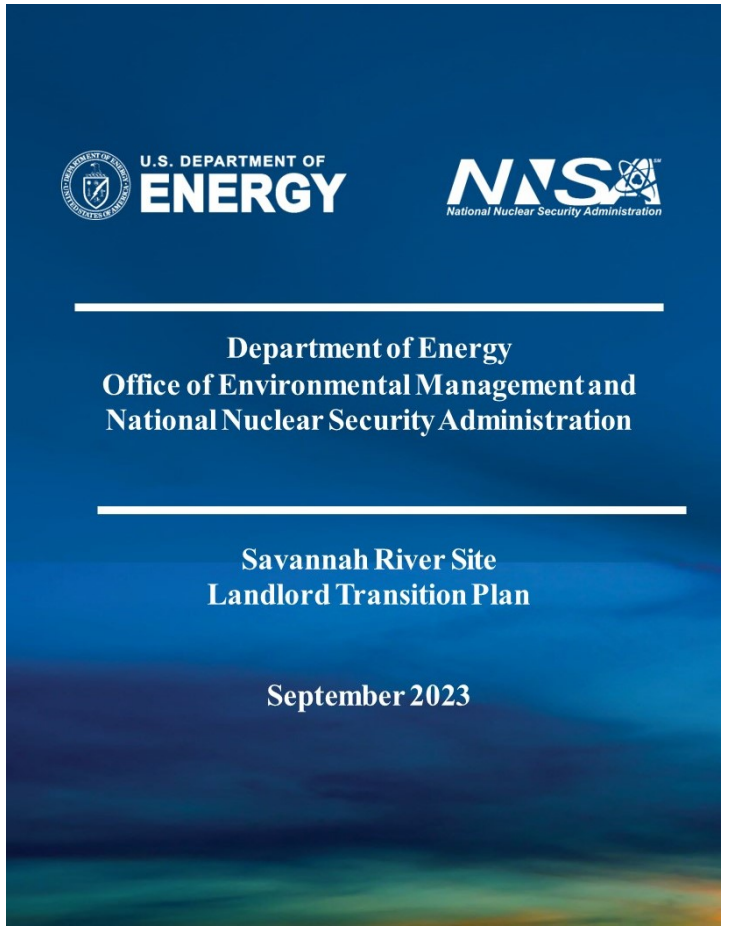
21CC00008

SRS Landlord Transition

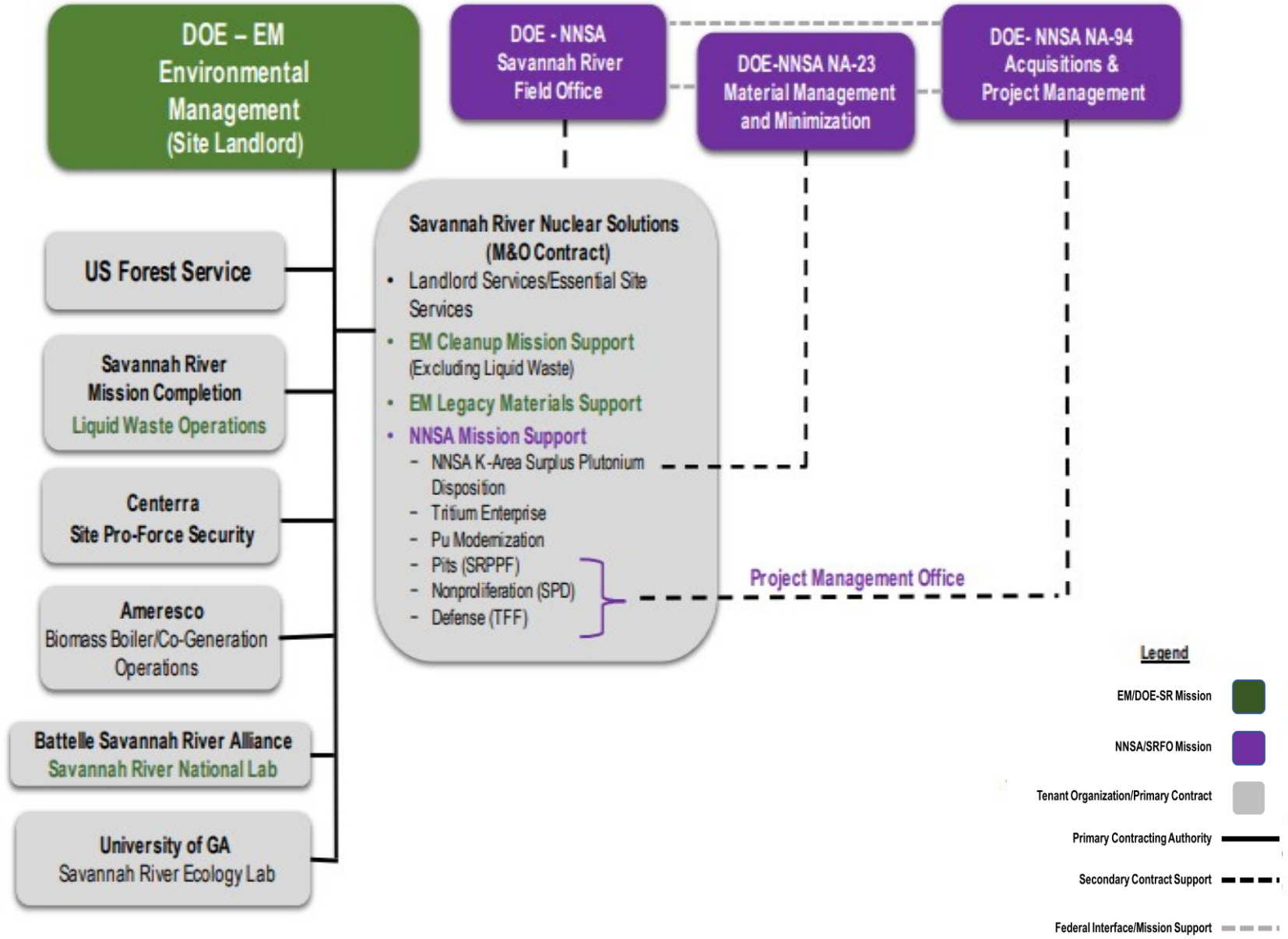
Transfer of Four (4) Major Responsibilities from EM to NNSA:

M&O Contract	Pro-Force Contract	K-Area Complex	Environmental Permits & Agreements

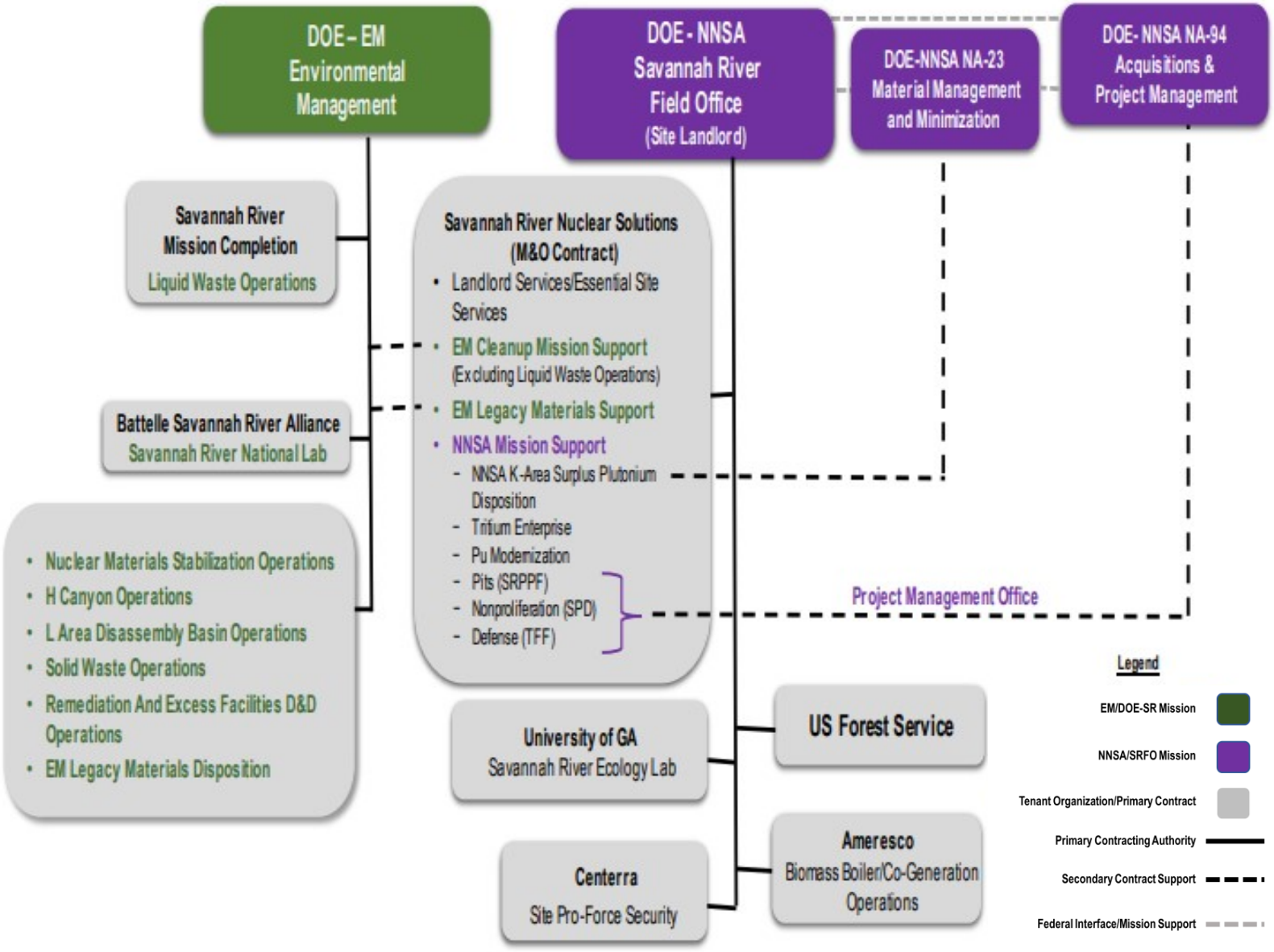
- **Accounts for responsibility and management of functions transferring from EM to NNSA encompassing management of budget and related funding activities supporting**:
  - Site Landlord Services, inclusive of FTE budgeting,
  - Transfer of the Site's primary M&O contract with Savanah River Nuclear Solutions (SRNS),
  - Transfer of the Site's Landlord non- M&O Contracts (to include Pro-Force with Centerra, Ameresco, Dominion) and landlord related Agreements (grants, cooperative agreements, interagency agreements, and PILT), and
  - Emergency Operations Center-Replacement (EOC-R) Project.
- **Supports NNSA assumption of primary Site management responsibility & budget authority by functions in Fiscal Year (FY) 2025.**
- **Establishes a timeline that factors in a FY 2025 Continuing Resolution (CR) & accomplished Landlord transition on October 1, 2024 (FY25).**



Pre-Transition Contractual Alignment of Federal Agencies and Contractors



Post-Transition Contractual Alignment of Federal Agencies and Contractors



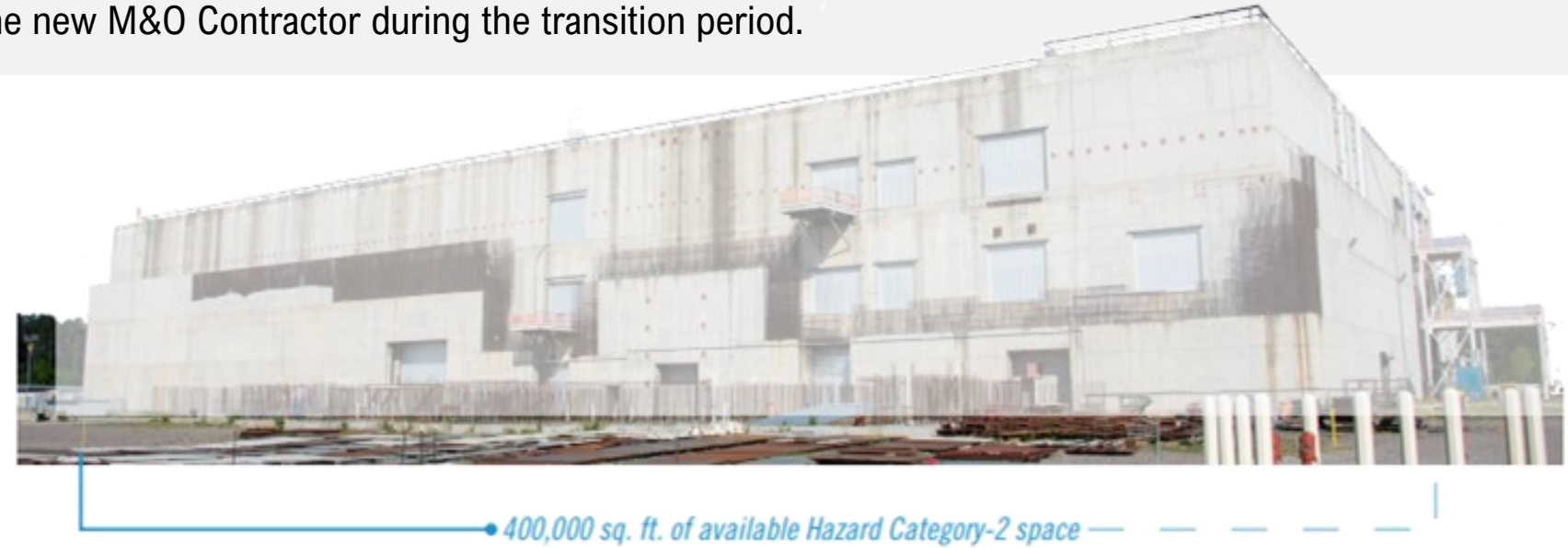
Post-Transition Responsibility Summary

Items in RED transitioning from EM to NNSA

EM Facilities	NNSA Facilities	Contract	Other
Savannah River National Lab (SRNL)	Tritium (within H-Area)	Site M&O	SRNS S&S Support
H-Canyon (within H-Area)	Savannah River Plutonium Processing Facility (SRPPF)	Ameresco	Clearances
L-Area	General Site (roads, water, electricity, sewer, etc)	SC Dominion Energy	USDA Forest Service
H & F Tank Farms, J, S, Z-areas (liquid waste facilities)	Barricades	Pro-Force Security	Federal Energy Regulatory Commission (FERC)
Former reactors C, P, R	A-Area (outside SRNL)		SR Ecology Lab (UGA)
D-Area (undergoing D&D)	B-Area		SC Institute of Arch & Anthro
E-Area (solid waste)	K-Area		CSX Transportation
F-Area	N-Area (medical and shops)		Historical Preservation
	ATTA range		GA and SC Emergency Management
	Centerra Facilities		Payments in Lieu of Taxes (PILT)
			85 FTEs

Savannah River Plutonium Processing Facility (SRPPF) Impacts

- No impacts by the contract transition and site ownership transfer from EM to NNSA.
- SRNS M&O contract is being transferred in its entirety - no changes to scope of work.
- SRNS will retain oversight of SRPPF - subcontracting most to Fluor.
  - In the event of a recompete, Fluor's subcontract for SRPPF will be assigned to the new M&O Contractor during the transition period.



K-Area Complex and WIPP Shipments

K-Area Transition Scope

- Programmatic scope associated with the plutonium downblending or dilute and dispose scope is owned by both EM and NNSA.
  - EM mission to disposition up to 6 Metric Tons (MT) of non-pit plutonium
  - NNSA mission to disposition 34 MT of weapon-grade plutonium
- Programmatic ownership of these missions remains with each of these entities respectively and is not subject to transition.

Scope Remaining with DOE-SROO	Scope Transferring to/or Remaining with NNSA
▪ Disposition of EM Pu Material ▪ Surveillance and maintenance (S&M) and future disposition of Heavy Water ▪ Deactivation and decommissioning (D&D) activities ▪ Final disposition of plutonium fuel plates received in 2016	▪ K-Area complex base operations, maintenance, infrastructure, administrative buildings and supporting structures (T) ▪ Disposition of NNSA Pu Material (R) ▪ WIPP's Central Characterization Program (CCP) operations on the K-Area Criticality Control Overpack (CCO) Pad (R)

STATUS AND ACCOMPLISHMENTS:

K-Area Downblends

- Downblended a total of 897.3 kgs of plutonium oxide since FY 2017; 276.2 kgs in FY 2024, as of July 31, 2024.

WIPP Shipments from K Area

- 35 shipments downblended plutonium completed in FY 2024, for a cumulative total of 48 shipments completed.

Disposition of Japanese Fast Critical Fuel

- In H-Canyon, EM initiated electrolytic dissolution of plutonium fuel plates received in 2016; will be discarded through the HLW system.

Completed two security **Entry Control Facility Projects** in K-Area, improving access for operators, construction craft and improves material movements.

SPD Project

- Site preparation, long lead procurement and limited construction underway
- Full construction will commence in FY 2025
- Estimated project completion – FY 2030

Cleanup to Clean Energy

Executive Order 14057

- The Cleanup to Clean Energy initiative will help achieve President Joe Biden's climate goals and the directive in Executive Order 14057 -- *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability* -- for agencies to use their properties for the development of new clean electricity generation.
- In the Executive Order, the President called on agencies to achieve **100 percent carbon pollution-free electricity on a net-annual basis as early as 2030**.
- To seize this opportunity and demonstrate leadership on these critical issues, DOE has identified lands that are not eligible for transfer at this time but could be available for CFE development.

Cleanup to Clean Energy

What Executive Order 14057 Requires

Section 102(i): *100 percent carbon pollution-free electricity on a net annual basis by 2030, including 50 percent 24/7 carbon pollution-free electricity, as defined in section 603(a) of this order;*

Section 203: *Each agency shall increase its percentage use of carbon pollution-free electricity, so that it constitutes 100 percent of facility electrical energy use on an annual basis and seek to match use on an hourly basis to achieve 50 percent 24/7 carbon pollution-free electricity, by fiscal year 2030.*

In addition, agencies shall facilitate new carbon pollution-free electricity generation and energy storage capacity by authorizing use of their real property assets, such as rooftops, parking structures, and adjoining land, for the development of new carbon pollution-free electricity generation and energy storage through leases, grants, permits, or other mechanisms, to the extent permitted by law.

Section 603(d): *"Carbon pollution-free electricity" means electrical energy produced from resources that generate no carbon emissions, including marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and electrical energy generation from fossil resources to the extent there is active capture and storage of carbon dioxide emissions that meets EPA requirements;*

Section 603(a): *"24/7 carbon pollution-free electricity" means carbon pollution-free electricity procured to match actual electricity consumption on an hourly basis and produced within the same regional grid where the energy is consumed*

Cleanup to Clean Energy

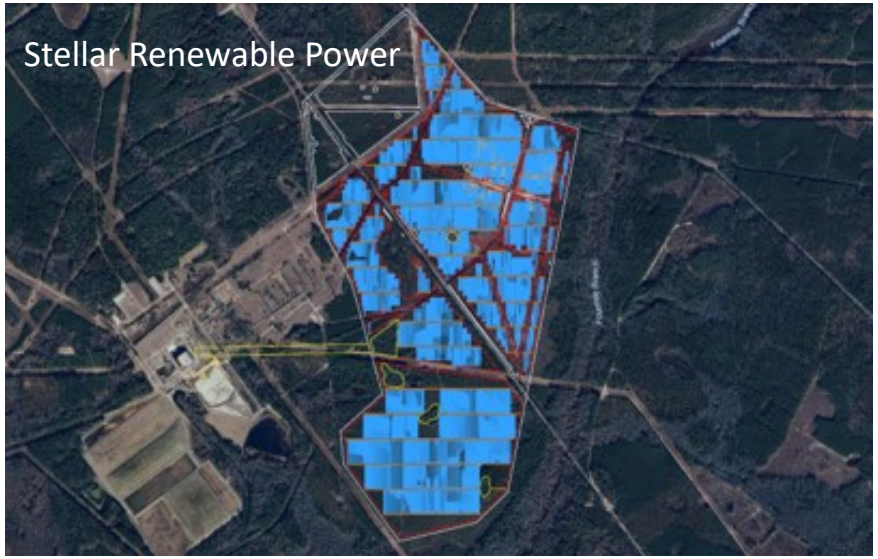
Savannah River Site – Phase 1

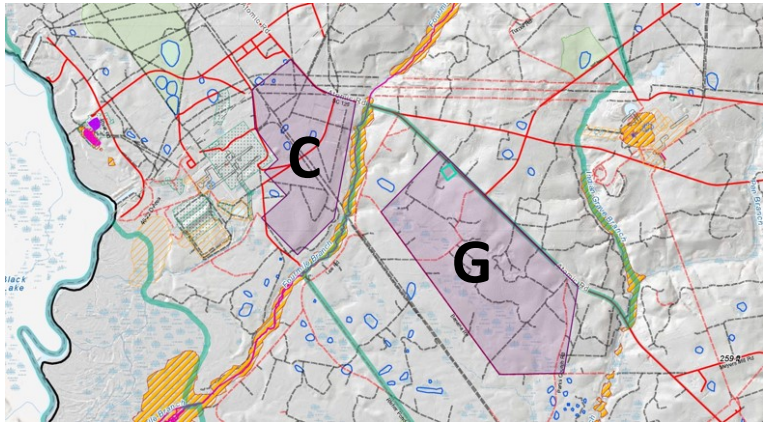
- The **first phase** of the Cleanup to Clean Energy initiative at SRS focused on the generation of approximately 150 megawatts of carbon pollution-free electricity **to achieve net 100 percent CFE usage by 2030**.
- Last October, DOE released a request for information inviting industry, government, and community members to comment on the potential use of SRS land for CFE projects, and DOE hosted an information day at SRS on February 29, for interested parties and industry leaders looking to submit a response to the RFI.
- In March, DOE issued a request for qualifications to evaluate qualified clean energy developers interested in utilizing land at SRS to develop CFE projects with a focus on **generating utility-scale solar power energy**.
- In June and July, DOE announced the selection of **Stellar Renewable Power, LLC** and **Ameresco, Inc.** to enter into lease negotiations for solar projects at SRS.

Cleanup to Clean Energy

Solar Updates – Phase 1

- Stellar Renewable Power, LLC., and Ameresco, Inc., have each signed leases to generate 75 megawatts each and provide Savannah River Site with Environmental Attribute Certificates to allow SRS to meet the 100% carbon pollution-free electricity goal by 2030.
  - Power will go onto Dominion Energy grid.
  - Dominion interconnection applications submitted.
  - DOE has engaged USACE for EBS / NEPA.
  - The University of South Carolina has been conducting an archeological survey primarily at Site G.





Cleanup to Clean Energy

Savannah River Site – Phase 2

- The **second phase** of Cleanup to Clean Energy will focus on opportunities for **200 megawatt or larger** carbon pollution-free electricity projects -- enabling SRS to provide energy to benefit the broader region.
- This phase is **not** limited to photovoltaic solar projects, but rather will consider **any** proposed viable CFE generation and storage technologies.
  - A request for information was completed and announced on May 10. Responses to the RFI were received on or before June 10.
  - A request for qualifications was released on **August 21**. Responses are due by **October 18,** with a possible two-week extension to **November 1** due to the impacts of Hurricane Helene within the surrounding communities.

Savannah River Site™

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