NNSA Acquisition and Project Management

Cameron Manning
Director, Office of Enterprise Project Management
National Nuclear Security Administration (NNSA)

- **NNSA** is a semi-autonomous agency within the U.S. Department of Energy responsible for enhancing national security through the military application of nuclear science.

Department of Energy DOE Programs FY21 Budget

- **National Nuclear Security Administration** $19.8B
  - Includes $2.1B in Capital Asset Projects
- Science $5.8B
- Energy $3.6B
- Environmental Management $6.1B
- Administration and Oversight $0.1B

DOE Total $35.4B

**NNSA Mission:**
- Managing the Nuclear Weapons Stockpile
- Nuclear Materials Non-Proliferation
- Powering the Nuclear Navy
- Emergency Response, world-wide
- Infrastructure Recapitalization
- Countering Nuclear Terrorism

- Majority of NNSA business is conducted via individual site Management and Operating contractors (M&Os)
- Partnering with DoD for budget support of Nuclear Weapons Complex
NNSA Locations and Infrastructure

Vision
We contribute to national security now and in the future by managing the complex NNSA risk of safety, infrastructure, materials, and the environment.

Mission
Enable safe operations, ensure effective infrastructure, and provide enterprise services to meet National Nuclear Security Administration needs.
## Minor Construction Opportunities

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of Projects (&lt; $5M)</th>
<th>Value of Projects ($ in M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansa City National Security Campus (KC)</td>
<td>7</td>
<td>$49</td>
</tr>
<tr>
<td>Knolls Atomic Power Laboratory (KL)</td>
<td>1</td>
<td>$19</td>
</tr>
<tr>
<td>Lawrence Livermore National Laboratory (LLNL)</td>
<td>7</td>
<td>$59</td>
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<tr>
<td>Los Alamos National Laboratory (LANL)</td>
<td>11</td>
<td>$82</td>
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<tr>
<td>Nevada National Security Site (NNSS)</td>
<td>7</td>
<td>$53</td>
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<tr>
<td>Oak Ridge National Laboratory (Y12)</td>
<td>19</td>
<td>$108</td>
</tr>
<tr>
<td>Pantex (PTX)</td>
<td>3</td>
<td>$66</td>
</tr>
<tr>
<td>Sandia National Laboratory (SNL)</td>
<td>10</td>
<td>$50</td>
</tr>
<tr>
<td>Savannah River Site (SRS)</td>
<td>8</td>
<td>$37</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>73</strong></td>
<td><strong>$524</strong></td>
</tr>
</tbody>
</table>

Source: FY 2021 Congressional Budget Justification
NA-APM Responsibilities

• Mission: to deliver timely best value ACQUISITION solutions and safe quality CONSTRUCTION on budget.

• Ensures NNSA implements federal acquisition and project management policies and regulations.

• Awards and administers all NNSA contracts, with particular emphasis on Management and Operating Contracts.

• Acquisition planning, design and construction of capital asset projects ($20M and above) including those governed by DOE Order 413 in accordance with the terms and conditions of the contracts.

• Building the $6.5B Uranium Processing Facility (UPF), the $2.0B Chemistry Metallurgy Research Replacement Project (CMRR), the $1.1B* Advanced Sources and Detectors (ASD) project and the $4.6B* Savannah River Plutonium Processing Facility, among others

• NNSA’s procurement authority resides with NA-APM’s Senior Procurement Executive and Head of Contracting Activity

(*) denotes top end of current range
APM Overview

- Integrated acquisition and project management organization
  - Follows the Department of Defense model and industry practices
  - Provides NNSA Administrator & Program Offices independent counsel
  - NNSA manages its projects through contracts
- APM is responsible for NNSA contract award, policy, staff development
  - 90% of NNSA’s budget spent on contract
  - Management & Operating (M&O) contracts valued at ~$11.0 B to manage and operate NNSA labs and plants
  - M&O model = government owned, contractor operated
  - ~2,000 contract actions annually, including over 200 new contracts valued at ~$2.0 B
- APM is responsible for all NNSA post Analysis of Alternatives (AoA) line item construction projects
  - 33 projects and subprojects valued at over $21B
    - 14 projects under construction valued at $8B
      » Includes 6 Major System Acquisition subprojects projects and 8 other projects
    - 19 projects are in design and are valued at $13B
## M&O Contracts Overview

<table>
<thead>
<tr>
<th>Facility</th>
<th>Contractor</th>
<th>Parent Companies</th>
<th>Award Date</th>
<th>Maximum Potential Expiration Date</th>
<th>Total Value Over 10 Years</th>
<th>Procurement POC</th>
</tr>
</thead>
</table>
Senior Director, Contracts  
michael.vermeulen@cns.doe.gov  
865-574-1255                                                              |
| Kansas City National Security Campus         | Honeywell FM&T                                  | Honeywell Corporation                                 | 7/9/2015   | 9/30/2025                         | $8B                       | Mr. Curtis Mears  
Director of Procurement  
CMears@kcncsc.doe.gov  
816-488-4805                                                              |
| Lawrence Livermore National Laboratory       | Lawrence Livermore National Security, LLC (LLNS) | Bechtel National, Univ. of California, Babcox & Wilcox, AECOM | 5/9/2007   | 9/30/2026                         | $25B*                     | Charles “Chuck” Duff - Supply Chain Manager  
duff6@llnl.gov  
925-422-0426                                                               |
| Sandia National Laboratories                 | National Technology and Engineering Solutions of Sandia (NTESS) | Honeywell International, Inc.                         | 12/16/2016 | 4/30/2027                         | $26B                      | Sandia Business Point of Contact (primary contact for suppliers interested in doing business at Sandia)  
supplier@sandia.gov  
1-800-765-1678                                                              |
| Nevada National Security Site                | Mission Support and Test Services LLC (MSTS)    | Honeywell International Inc., Jacobs Engineering Group Inc., and Stoller Newport News Nuclear Inc. (SN3) | 5/12/2017  | 9/30/2027                         | $7B                       | MSTS Procurement POC: Sharon Nanez NanezSR@nv.doe.gov  
702-295-2649                                                              |
| Bettis/Knolls Atomic Power Laboratory        | Fluor Marine Propulsion, LLC                    | Fluor Corporation                                     | 7/12/2018  | 9/30/2028                         | $17B                      | Juliana Heynes  
Juliana.Heynes@nrp.doe.gov  
412-476-7241                                                              |
| Los Alamos National Laboratory               | Triad National Security, LLC (Triad)            | Battelle Memorial Institute, The Regents of University of California, Regents of Texas A&M University  
Subcontractor: Fluor   | 6/8/2018    | 10/31/2028                        | $24B                     | Drew Fuller  
Procurement Director  
dfuller@lanl.gov  
505-667-9182                                                               |
| Savannah River Site (EM Contract)            | Savannah River Nuclear Solutions LLC (SRNS)     | Fluor, Newport News Nuclear, and Honeywell            | 1/10/2008  | 7/31/2019                         | $12B                      | Cory Price  
cory.price@nnsa.doe.gov  
803-208-2653                                                              |
DOE Acquisition Process for Capital Assets (> $50M in size)

- Phase-gate Project Management Process defines the following Critical Decisions:
  - **CD-0**, Approve Mission Need
  - **CD-1**, Approve Alternative Selection and Cost Range
  - **CD-2**, Approve Performance Baseline
  - **CD-3**, Authorize Construction
  - **CD-4**, Acceptance/Project Completion

- Project Management Executives approve these CDs indicating readiness to proceed, acceptance of risk, and commitment of resources
- Contracting/acquisition process works in concert with this project management process

**NOTES:**
1. PED funds can be used after CD-3 for design.
2. Operating Funds may be used prior to CD-4 for transition, startup, and training costs.
## Upcoming Critical Decisions

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Site</th>
<th>TOR/TPC $M</th>
<th>CD Achieved / to be achieved</th>
<th>Month</th>
<th>Forecast / Actual (F/A)</th>
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<tbody>
<tr>
<td>Surplus Plutonium Disposition (SPD)</td>
<td>SRFO</td>
<td>620</td>
<td>1/3A</td>
<td>December 19, 2019</td>
<td>A</td>
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<tr>
<td>Exascale Computing Facility Modernization Project (ECFM)</td>
<td>LFO</td>
<td>111</td>
<td>2</td>
<td>December 19, 2019</td>
<td>A</td>
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<tr>
<td>Lithium Production Capabilities (LPC)</td>
<td>Y12</td>
<td>1,645</td>
<td>1</td>
<td>December 19, 2019</td>
<td>A</td>
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<tr>
<td>UPF Substation</td>
<td>Y12</td>
<td>60</td>
<td>4</td>
<td>December 19, 2019</td>
<td>A</td>
</tr>
<tr>
<td>Electrical Power Capacity Upgrade (EPCU)</td>
<td>LAFO</td>
<td>300</td>
<td>AoA</td>
<td>December 20, 2019</td>
<td>A</td>
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<tr>
<td>Tritium Finishing Facility (TFF)</td>
<td>SRFO</td>
<td>640</td>
<td>1</td>
<td>December 20, 2019</td>
<td>A</td>
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<tr>
<td>Power Source Capability</td>
<td>TBD</td>
<td>320</td>
<td>AoA</td>
<td>February 28, 2020</td>
<td>F</td>
</tr>
<tr>
<td>Digital Infrastructure Capability Expansion (DICE) (formerly DIF B-256-NCC)</td>
<td>LFO</td>
<td>89</td>
<td>0</td>
<td>March 31, 2020</td>
<td>F</td>
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<tr>
<td>Energetic Materials Characterization (EMC)</td>
<td>LAFO</td>
<td>330</td>
<td>0</td>
<td>May 20, 2020</td>
<td>F</td>
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<tr>
<td>Calciner</td>
<td>Y12</td>
<td>105</td>
<td>2</td>
<td>June 1, 2020</td>
<td>F</td>
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<tr>
<td>Combined Radiation Environments for Survivability Testing (CREST)</td>
<td>TBD</td>
<td>1,250</td>
<td>AoA</td>
<td>June 1, 2020</td>
<td>F</td>
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<tr>
<td>Exascale Class Computer Cooling Equipment (ECCCE)</td>
<td>LAFO</td>
<td>56</td>
<td>4</td>
<td>June 12, 2020</td>
<td>F</td>
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<tr>
<td>Power Source Capability</td>
<td>TBD</td>
<td>320</td>
<td>AoA</td>
<td>June 30, 2020</td>
<td>F</td>
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<tr>
<td>CMRR PF-4 Equipment Installation Phase 1 (PEI-1)</td>
<td>LAFO</td>
<td>394</td>
<td>4</td>
<td>June 30, 2020</td>
<td>F</td>
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<tr>
<td>Digital Infrastructure Capability Expansion (DICE) (formerly DIF B-256-NCC)</td>
<td>LFO</td>
<td>89</td>
<td>AoA</td>
<td>June 30, 2020</td>
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<tr>
<td>Domestic Uranium Enrichment (DUE) Capability</td>
<td>TBD</td>
<td>14000</td>
<td>AoA</td>
<td>June 30, 2020</td>
<td>F</td>
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<tr>
<td>Energetic Materials Characterization (EMC)</td>
<td>LAFO</td>
<td>330</td>
<td>AoA</td>
<td>July 31, 2020</td>
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<tr>
<td>138 kV Power Transmission System Replacement</td>
<td>NFO</td>
<td>90</td>
<td>2</td>
<td>September 23, 2020</td>
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<td>Material Staging Facility (MSF)</td>
<td>PTX</td>
<td>1,700</td>
<td>1</td>
<td>September 30, 2020</td>
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<tr>
<td>Device Assembly Facility (DAF) Argus - IP</td>
<td>NFO</td>
<td>24</td>
<td>4</td>
<td>September 30, 2020</td>
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<tr>
<td>High Explosive Science &amp; Engineering (HESE)</td>
<td>PTX</td>
<td>195</td>
<td>2</td>
<td>September 30, 2020</td>
<td>F</td>
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<tr>
<td>Expand Electrical Distribution System (EEDS)</td>
<td>LFO</td>
<td>33.8</td>
<td>4</td>
<td>September 30, 2020</td>
<td>F</td>
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<tr>
<td>Savannah River Pu Processing Facility (SRPPF)</td>
<td>SRFO</td>
<td>4,600</td>
<td>1</td>
<td>September 30, 2020</td>
<td>F</td>
</tr>
</tbody>
</table>
Major Systems Projects

**Uranium Processing Facility (UPF)**
- On schedule to deliver on the commitment of $6.5B by the end of 2025
  - President’s FY21 Budget = $750M
  - $42M increase from FY19
  - $3.5B expensed to date

**Chemistry and Metallurgy Research Building Replacement (CMRR)**
- On schedule to deliver on the commitment of $1.9B by the end of 2022
  - President’s FY21 Budget = $169M
  - PF-4 Equipment Installation, Phase 1 (PEI-1) at $394M
  - RLUOB Equipment Installation, Phase 2 (REI-2) at $633M
  - $730M expensed to date
  - More than $1B of additional equipment installation and other infrastructure scope that is currently being designed (subprojects PEI-2 and RC3)

**Plutonium Pit Production**
- Design, D&D, and installation of processing equipment and related infrastructure at LANL to increase pit production from 10 pits per year (ppy) to 30 ppy
  - President’s FY21 Budget = $226M
Upcoming Major System Acquisition Projects

Advanced Sources and Detectors
• Mission need approved Sep. 2014; CD-1 approved February 6, 2019
• CD-1 preliminary cost range $500M - $1.1B
• Conceptual Design complete

Savannah River Plutonium Processing Facility (SRPPF)
• Mission need approved Nov. 2015; CD-1 planned for 2020
• Cost range $1.8B - $4.6B
• Analysis of Alternatives and Engineering Assessment complete. Savannah River Site picked as the preferred site
• Conceptual Design underway
What NNSA needs from you

• To Realize NNSA’s Budget is Increasing
• To Realize NNSA’s infrastructure will be a focus area in the coming years
• To understand that our infrastructure is not all nuclear – recent projects:
  – Office Space, Emergency Operations Centers, Electrical Upgrades; HVAC Upgrades; Parking Garages
• To seek out our M&O partners to understand opportunities
• To increase competition for NNSA work
Acquisition Forecast

• NNSA’s Multi-Year Acquisition Forecast
  • Prime DOE/NNSA Contracting Opportunities
  • Subcontracting Opportunities Available from M&O Contractors

• Web URL https://hqlnce.doe.gov/support/nnsaforecast.nsf
  Click on: “by Opportunity ID” on the left column and you will see our more recent opportunities.

• The best all-around link is: https://www.energy.gov/osdbu/acquisition-forecast
  • This is DOE’s site and covers all the program offices. There is a downloadable spreadsheet at the bottom of the page for the Department’s Acquisition Forecast.
## Small Business Contact Information

<table>
<thead>
<tr>
<th>Pantex Plant (TX)</th>
<th>NNSA</th>
<th>Los Alamos (NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ryan Johnston</strong>&lt;br&gt;Small Business Program Manager&lt;br&gt;806-573-4417&lt;br&gt;<a href="mailto:ryan.johnston@cns.doe.gov">ryan.johnston@cns.doe.gov</a>&lt;br&gt;<a href="http://pantex.energy.gov/">http://pantex.energy.gov/</a></td>
<td><strong>Greg Gonzales</strong>&lt;br&gt;Small Business Program Manager&lt;br&gt;Albuquerque:&lt;br&gt;U.S. Department of Energy National Nuclear Security Administration&lt;br&gt;P.O. Box 5400&lt;br&gt;Albuquerque, NM 87115&lt;br&gt;(505) 845-5420&lt;br&gt;<a href="mailto:gregory.gonzales@nnsa.doe.gov">gregory.gonzales@nnsa.doe.gov</a></td>
<td><strong>Chris Fresquez</strong>&lt;br&gt;Small Business Office Leader&lt;br&gt;(505) 665-7175&lt;br&gt;<a href="mailto:chrisjf@lanl.gov">chrisjf@lanl.gov</a></td>
</tr>
<tr>
<td><strong>Y-12 National Security Complex Oak Ridge, (TN)</strong>&lt;br&gt;&lt;b&gt;Lisa Copeland&lt;/b&gt;&lt;br&gt;Small Business Program Manager&lt;br&gt;865-576-2090&lt;br&gt;<a href="mailto:lisa.copeland@cns.doe.gov">lisa.copeland@cns.doe.gov</a>&lt;br&gt;<a href="http://www.y12.doe.gov">http://www.y12.doe.gov</a></td>
<td><strong>Gary Lyttek</strong>&lt;br&gt;Senior Business Source Manager&lt;br&gt;Headquarters:&lt;br&gt;U.S. Department of Energy&lt;br&gt;1000 Independence Ave. SW&lt;br&gt;Washington, DC 20585&lt;br&gt;ATTN: NA-APM-1&lt;br&gt;(202) 586-8304&lt;br&gt;<a href="mailto:gary.lyttek@nnsa.doe.gov">gary.lyttek@nnsa.doe.gov</a></td>
<td><strong>James Carrigan</strong>&lt;br&gt;Small Business Advocate&lt;br&gt;(505) 667-4940&lt;br&gt;<a href="mailto:carrigan_james@lanl.gov">carrigan_james@lanl.gov</a></td>
</tr>
</tbody>
</table>
BACKUP SLIDES
### Design Opportunities

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Site</th>
<th>TPC ($M)</th>
<th>CD-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA-55 Reinvestment Project Phase 3 (TRP III)</td>
<td>LAFO</td>
<td>170 - 238</td>
<td>6/21/2021</td>
</tr>
<tr>
<td>High Explosive Synthesis, Formulation, and Production (HESFP)</td>
<td>PTX</td>
<td>96 - 240</td>
<td>11/2/2020</td>
</tr>
<tr>
<td>Savannah River Pu Processing Facility (SRPPF)</td>
<td>SRFO</td>
<td>1,800 - 4,600</td>
<td>9/30/2020</td>
</tr>
<tr>
<td>Electrical Power Capacity Upgrade (EPCU)</td>
<td>LAFO</td>
<td>110 - 300</td>
<td>9/30/2021</td>
</tr>
<tr>
<td>Power Source Capability</td>
<td>TBD</td>
<td>80 - 320</td>
<td>9/30/2021</td>
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</tbody>
</table>

Dates and Dollar Amounts Subject to Change
# Construction Opportunities

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Site</th>
<th>TPC ($M)</th>
<th>CD-2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calciner (CALP)</td>
<td>Y12</td>
<td>107</td>
<td>5/20/2020</td>
</tr>
<tr>
<td>High Explosive Science &amp; Engineering (HESE)</td>
<td>PTX</td>
<td>100 - 195</td>
<td>9/30/2020</td>
</tr>
<tr>
<td>SNL Emergency Operations Center (EOC)</td>
<td>SFO</td>
<td>40</td>
<td>9/28/2020</td>
</tr>
<tr>
<td>LLNL Emergency Operations Center (EOC)</td>
<td>LFO</td>
<td>32</td>
<td>9/30/2020</td>
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<tr>
<td>U1a Complex Enhancements Project (UCEP) Subproject 020</td>
<td>NFO</td>
<td>61 - 152</td>
<td>12/15/2020</td>
</tr>
<tr>
<td>138 kV Power Transmission System Replacement</td>
<td>NFO</td>
<td>42 - 90</td>
<td>9/23/2020</td>
</tr>
<tr>
<td>West End Protected Area Reduction (WEPAR)</td>
<td>Y12</td>
<td>43 - 172</td>
<td>12/31/2021</td>
</tr>
<tr>
<td>Advanced Sources and Detectors (ASD) (ECSE)</td>
<td>LAFO</td>
<td>500 - 1,054</td>
<td>9/30/2022</td>
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<td>Surplus Plutonium Disposition (SPD)</td>
<td>SRFO</td>
<td>448 - 620</td>
<td>9/30/2022</td>
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<tr>
<td>Y-12 Emergency Operations Center (EOC)</td>
<td>Y12</td>
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<td>9/30/2020</td>
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<td>Y-12 Fire Station</td>
<td>Y12</td>
<td>29</td>
<td>9/30/2020</td>
</tr>
</tbody>
</table>

Dates and Dollar Amounts Subject to Change
Major Construction
Uranium Processing Facility

Mechanical Electrical Building Rebar

MPB West and Gas Pad Formwork

1st Floor NE Quad Fireproofing Complete and HVAC Duct Installation Prep

First Elevated Slab Concrete Placement
Major Construction Underway

Chemistry & Metallurgy Research Replacement Project, LANL
Exascale Cooling Facilities Modernization, LLNL
Low Level Waste, LANL
Albuquerque Complex Project, SNL
Major Construction Completed

Transuranic Waste Facility, LANL

High Explosive Pressing Facility, Pantex Plant

Test Capabilities Revitalization Phase 2 Project, SNL

Nuclear Materials Safeguards and Security Upgrades Project, LANL