Ten-Year End State Strategic Task Order Plan, Revision 3

Fiscal Year 2025
Idaho Cleanup Project

Table of Contents

Section **Page**

Exhibits **Page**

Acronyms and Abbreviations

A1W	Aircraft Carrier 1st Generation Westinghouse
ACM	Asbestos Containing Material
AI	Agreement to Implement
AMWTP	Advanced Mixed Waste Treatment Plant
ARP	Accelerated Retrieval Project
ATI	Agreement to Implement
ATO	Authority to Operate
B	Billion
BEA	Battelle Energy Alliance
CD	Critical Decision
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH	Contact-Handled
CO2	Carbon Dioxide
CPAF	Cost Plus Award Fee
CPFF	Cost Plus Fixed Fee
CPIF	Cost Plus Incentive Fee
CPP	Chemical Processing Plant
CR	Continuing Resolution
CSFF	Calcine Solids Storage Facility
D&D	Deactivation and Decommissioning
DCS	Distributed Control System
DMR	Denitration Mineralization Reformer
DOE	Department of Energy
DOE-ID	DOE Idaho
DOT	Department of Transportation
EAC	Estimate at Completion
EECA	Engineering Evaluation/Cost Analysis
EM	DOE Office of Environmental Management
EPA	Environmental Protection Agency
ESCM	End State Contracting Model
EV	Electric Vehicle
EVMS	Earned Value Management System
FFP	Firm-Fixed Price
FIMS	Facility Information Management System
FSV	Fort Saint Vrain
FTE	Full-Time Equivalent
FW	Fire Water
FY	Fiscal Year
GAC	Granulated Activated Carbon
HIRTU	Hazardous, Industrial, Recyclable, TSCA, Universal
HLW	High-Level Waste
HQ	Headquarters

Acronyms and Abbreviations (continued)

HVAC	Heating, Ventilation, and Air Conditioning
ICDF	Idaho CERCLA Disposal Facility
ICP	Idaho Cleanup Project
ICR	Information Collection Request
IDEQ	Idaho Department of Environmental Quality
IDIQ	Indefinite Delivery/Indefinite Quantity
IEC	Idaho Environmental Coalition, LLC
IMC	Integration & Mission Continuity
IMPCT	Idaho Mission Planning Completion Tool
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
ISA	Idaho Settlement Agreement
IWTU	Integrated Waste Treatment Unit
LLC	Limited Liability Corporation
LLW	Low-Level Waste
M	Million
m3	Cubic Meter
MFC	Materials and Fuels Complex
MIPP	Mission Information Protection Program
MLLW	Mixed Low-Level Waste
MPC	Multi-Purpose Canister
NNCO	Notice of Noncompliance Consent Order
NNSS	Nevada National Security Site
NRC	Nuclear Regulatory Commission
NRF	Naval Reactor Facilities
OCVZ	Organic Contamination in Vadose Zone
PEMP	Performance Evaluation Measurement Plan
PBI	Performance-Based Incentives
PEMP	Performance Evaluation Management Plan
PERT	Project Evaluation Review Technique
PEWE	Process Equipment Waste Evaporator
PGF	Process Gas Filter
PIV	Pressure Indicating Valve
PMB	Performance Measurement Baseline
PMI	Performance Management Incentive
POP	Period of Performance
PRV	Pressurized Reactor Vessel
PSB	Product Storage Building
PWS	Performance Work Statement
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RH	Remote-Handled
RORO	Roll-on, Roll-off

Acronyms and Abbreviations (concluded)

RSC	Removable Shipping Container
RTP	Request for Task Order Proposal
RWDP	Remote Waste Disposition Project
RWMC	Radioactive Waste Management Complex
S1W	Submarine 1st Generation Westinghouse
S5G	Submarine 5th Generation General Electric
SA	Settlement Agreement
SBW	Sodium-Bearing Waste
SDA	Subsurface Disposal Area
SDS	Safety Design Strategy
SMP	Safety Management Program
SNF	Spent Nuclear Fuel
SSF	Sawtelle Street Facility
STP	Site Treatment Plan
SWB	Standard Waste Box
TAN	Test Area North
TBD	To Be Determined
TF	Treatment Facility
TMI-2	Three Mile Island – Unit 2
TO	Task Order
TRU	Transuranic
TSA-RE	Transuranic Storage Area-Retrieval Enclosure
TSCA	Toxic Substance Control Act
TSDF	Treatment, Storage, and Disposal Facility
TYP	Ten-Year Strategic Task Order Plan
UT	Ultrasonic Testing
WIPP	Waste Isolation Pilot Plant
WMF	Waste Management Facility

Executive Summary

This Ten-Year Strategic Task Order Plan (TYP) provides details on the Idaho Cleanup Project (ICP) accomplishments, Task Orders (TOs), enabling support Subtasks, and risks (funding and others) to completion that fully support DOE's ESCM vision to accomplish End States and reduce risk and liability. The greatest risk to accomplishment is predictable funding.

In 2018, the Department of Energy (DOE) set a clear preference for use of the End State Contracting Model (ESCM) on large dollar cleanup contracts within the DOE Office of Environmental Management (EM). EM's goal is to safely do the right work, at the right time, for the right cost, serving as responsible stewards of taxpayer money, while maintaining high safety standards. In support of that goal, EM is using ESCM for the first time at EM cleanup sites to reinvigorate the completion mindset. End State Contracting focuses on accelerating cleanup, while reducing financial risk and environmental liability to the government, and fairly sharing risk between the government and contractor to achieve desired end states.

In 2022, the Idaho Cleanup Project (ICP) became the second ESCM contract awarded in the complex. Three years in, DOE ICP, and the ICP Contractor, Idaho Environmental Coalition, LLC (IEC), have successfully collaborated to accomplish DOE stated objectives for ESCM contracting. We have established and are accomplishing work scopes for six discrete End State Task Orders (TOs) that combine accelerated cleanup with significant reductions in near-term environmental risk and financial liability, while simultaneously sharing risk between DOE and IEC.

The ESCM that DOE envisioned is effective with regard to ICP scope – we are working collaboratively with contractors, regulators, and stakeholders; we completed ICP regulatory milestones for shipments of transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP), completed processing of more than 271,824 cumulative gallons of sodium-bearing waste (SBW), transferred spent nuclear fuel (SNF) from wet to dry storage, and completed buried waste exhumation as well as demolition of the Accelerated Retrieval Project (ARP) structures over the Subsurface Disposal Area (SDA). We are accelerating cleanup and are implementing End State TOs and Subtasks that support significant End State accomplishments within the extended contract period, including closure of the Radioactive Waste Management Complex (RWMC), Tank Closure, Naval Reactors Facilities (NRF) deactivation and decommissioning (D&D), and Excess Facilities Demolition – all in line with DOE objectives for reducing near-term environmental risks and financial liabilities, while acting as good stewards of taxpayer dollars and the communities and stakeholders we serve.

ESCM is working on ICP but must be adequately funded to be effective and to achieve End States.

In the three years of operation, the ICP has been effectively flat funded at a level of ~$460 million (M) per year and we've been able to successfully meet the objectives of the Ten-Year Plan, supplementing each year's appropriation with use of prior year funds. In that time, we have become more familiar with the objectives and risks to accomplish the desired End States. In the past two years, ICP has realized that for the ESCM to be fully effective, sufficient predictable funding is paramount. Consequently, we are at a crossroads in successful continued implementation of the ESCM *Exhibit 1, Notional Funding Profile for Predictable* shows the predictable funding profile for contract execution. The predictable funding profile assumes at least one 5-year task order will be issued prior to the end of the 10-year contract ordering period. The predictable funding profile shows stable funding focused on workforce optimization that also supports significant end state accomplishments. With Flat Funding, no End States are achieved within the base contract period, and the estimated cost to complete increases by ~$1.5B. If the ICP is not funded at the appropriate level it has the potential to extend the end state completion out by decades.

To support the Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility (ICDF) project moving forward the scope was divided into ICDF Project 1 and Project 2. Project 1 was initiated and is underway under Phase 2 of the Integration and Mission Continuity TO (TO 3.2) and included design, site preparation, and long-lead procurement within the Continuing Resolution (CR) constraints. Project 2, which is expected to start up in FY25 as TO 4.2, will include the ICDF construction, testing, and startup. This division of ICDF scope due to timeliness of funding created an additional burden on ICP to execute two separate projects in accordance with DOE Orders, including DOE O 413.3b.

This calendar year, IEC successfully completed the ARP D&D Task Order (TO 4a). Under this CPIF task order, DOE incentivized IEC to demolish the ARP facilities (within the SDA Cap footprint) by the end of FY24 to ensure the cap construction could begin in FY25 as planned. Given current funding constraints, DOE and IEC are focused on risk mitigation activities to protect the subsurface disposal area footprint, while preparation activities for the SDA cap construction continue.

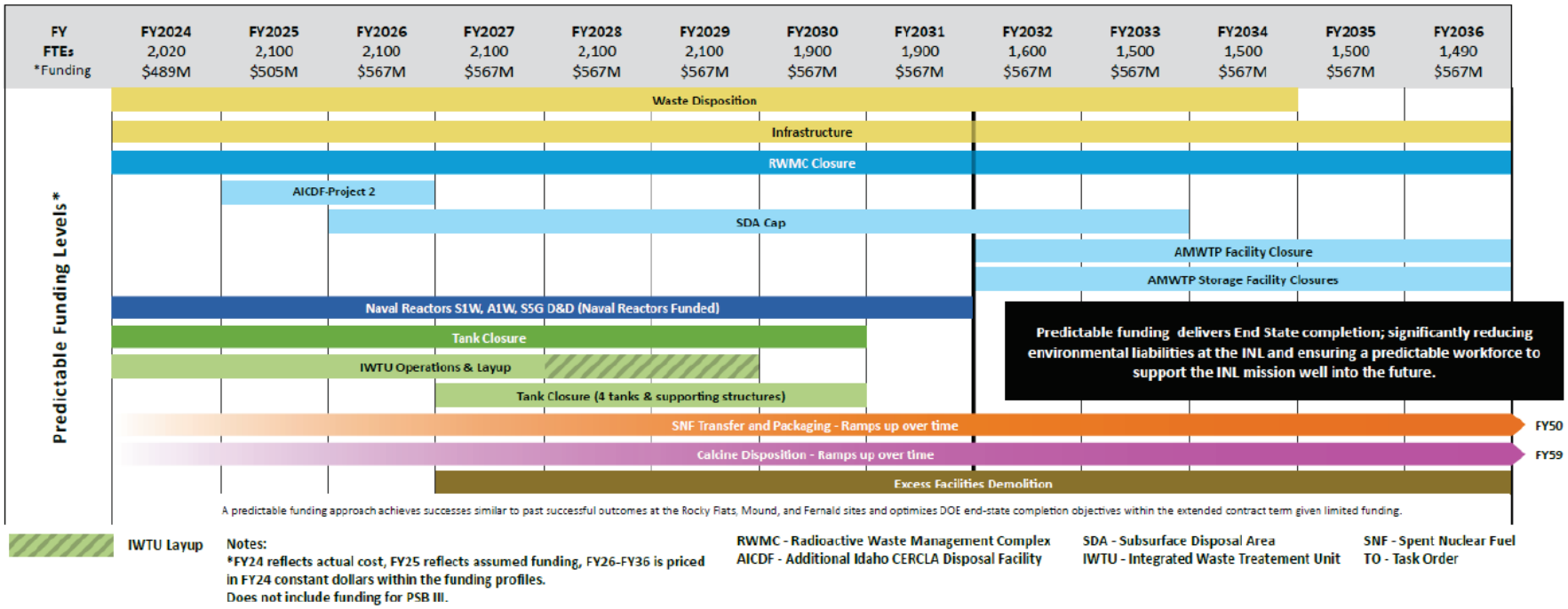
What is needed for success under the ESCM is an adequate and predictable funding level that provides incremental funding above the base operations level to support the execution of the line-item funded scope while stably funding base operations. Particularly infrastructure upgrades and waste management activities that represent risks beyond ICP's ability control and resolution of which requires numerous collaborations with outside agencies to resolve in order to support ongoing work on End-State TOs. This predictable funding profile will allow for the acceptability of risk and execution of increasing line-item work, including the SDA Cap capital asset project, in parallel with completing critical path tasks to accomplish TYP End States while maintaining the highly skilled and qualified workforce.

Another key component of the implementation of the ESCM and associated TYP is that it creates a better vehicle to more discretely identify risk and mitigation associated with accomplishing TOs. The model drives both DOE and its contractors to focus on risks associated with each objective of the plan and how that is directly translated into each TO. The former contract types created a tendency to dilute the risk to individual tasks, wherein the ESCM demands more careful consideration of risk and mitigation. This TYP update now includes a detailed analysis of risks to accomplishment of the End States in *Section G, Risk and Liability*, with significant discussion and recommendations to mitigate risks in the areas of infrastructure upgrades and waste management – two areas that significantly threaten ICP's ability to accomplish tank closures and D&D of the RWMC.

Similar success in the DOE complex was experienced at sites that were completed under closure contracts (such as Rocky Flats, Fernald, and Mound) wherein funding was maintained at an adequate and predictable level allowing the department and contractors to manage funds across multiple projects. These contracts fell out of favor due to the level of unquantified risk to both parties that resulted in subsequent disagreement as to equitable risk sharing but were immensely successful in accomplishing desired scope at significantly reduced cost. In the present day, the ESCM, with the use of the TO process, allows both parties to quantify, limit, and share in the risk to manageable task scopes, wherein each party agrees prior to execution of scope. The ICP has proven this contract type to be viable and believes that a predictable funding profile would allow for adequate funding with less impact on near-term needs but would also allow for many of the completion states in the TYP to be accomplished.

This TYP reflects the predictable, timely funding levels required to complete the majority of the ICP scope within the 10-year contract period, and assumes a five-year extension period will be issued prior to the end of the 10-year contract ordering period.

Exhibit 1, Notional Funding Profile for Predictable Funding



Introduction

This Ten-Year Plan (TYP) focuses on the Department of Energy Office of Environmental Management's (DOE-EM) strategic imperatives for site cleanup activities that are being performed on the Idaho Cleanup Project (ICP) across fiscal years (FY) 2022–2031 and potentially through FY 2036. The work includes treating, storing, and dispositioning a variety of radioactive and hazardous wastes; exhuming and dispositioning targeted retrieved waste; removing or deactivating unneeded facilities; and preparing spent nuclear fuel (SNF) and high-level waste (HLW) for removal from Idaho. These activities are necessary to implement DOE-EM strategic objectives, meet the milestones contained within the regulatory agreements, and achieve specific End States on the Idaho National Laboratory (INL) Site.

To provide clarity in the tables and figures throughout this Plan, TOs have been color coded as shown below. Note that TO numbers have only been assigned to active, fully negotiated TOs. The order in which the remaining task orders will be prepared and negotiated will be driven by site priorities and funding levels.

The Idaho Environmental Coalition (IEC) is a joint venture of Amentum and NorthWind. They are teamed with three small business subcontractors who deliver support in targeted areas:

ICP Support and End State Task Orders	
IMC Phase 2 TO (TO3.2)	Focused on maintaining continuity of operations, providing core programs across the ICP, providing programmatic support required over the life of the contract, and assuring variable and high-risk work scopes not resolved during IMC Phase 1 are continued until risks have been mitigated to ensure control between IEC and DOE ICP
Radioactive Waste Management Complex (RWMC) Closure End State TO (TO4)	Combination of activities to achieve RWMC Closure
Naval Reactors End State TO (TO5)*	Removal and disposition of aging Naval facilities
Non-Defense Project TO (TO6.1)	Management of Fort Saint Vrain and on-site Nuclear Regulatory Commission (NRC) licensed facilities spent nuclear fuel (SNF)
Tank Closure End State TO (TO7)	Activities required to complete Tank Closure
Spent Nuclear Fuel (SNF) Transfer & Packaging End State TO	Activities required to prepare & ready HLW and SNF for shipment
Calcine Disposition End State TO	Activities to support retrieval/processing & disposition of calcine waste
Excess Facilities Demolition End State TO	Accelerated removal of excess facilities to reduce liability and costs

*Funded by NRF or other source

- Navarro Research and Engineering provides broad support including closing the Radioactive Waste Management Complex and groundwater monitoring
- Oak Ridge Technologies provides expertise and support for spent nuclear fuel management
- Spectra Tech provides Nuclear Regulatory Commission licensed facilities support

The IEC Team and DOE ICP work collaboratively to establish task orders (TOs) that drive the execution of this Master Indefinite Delivery/Indefinite Quantity (IDIQ) contract (Contract). To date the Transition TO (TO1), Implementation Period TO (TO2), and the Integration and Mission Continuity (IMC) Phase 1 TO (TO3.1) have been completed. The remaining TOs include two non-end-state support Task Orders and six End-State Task Orders.

The first of the non-end-state TOs is the Integration and Mission Continuity (IMC) Phase 2 TO (TO3.2) which is focused on maintaining continuity of operations and providing core programs that support reliable and safe delivery throughout the contract duration. The second is the Non-Defense Project TO (TO6) which includes non-end-state work scopes that assure safe and compliant management of non-defense SNF and facilities. The remaining TOs are End-State focused and will drive the development of specific TOs and Subtasks aimed at facility closures and waste management and disposition and represent specific advances to achieving End States at the ICP. The joint strategy for achieving each End State has been developed to include specific objectives for successful project execution and metrics for measuring and demonstrating progress and risk reduction throughout the Contract life.

Our Plan for achieving End States is predicated upon the assumption that funding levels presented herein are sufficient to support the Plan.

This Ten-Year Plan is adaptive and focused on achieving DOE End-State objectives and identifying strategic imperatives that anticipate challenges and risks; proactively manage, mitigate, and control them; and bring proven solutions during all phases of TO development, implementation, and closeout to cost effectively complete End States within the Contract period. This Plan is a living document that will be managed and updated annually to address changes in DOE priorities or emerging imperatives.

Contract Year Three (FY24) in Review

This TYP has been revised to reflect the significant progress made on the ICP during FY24. DOE ICP and IEC have worked diligently to ensure alignment of goals and objectives for project implementation. *Exhibit 2, ESCM TO Accomplishments in FY24,* shows the progress made with TO development, implementation, and completion over the last year. Details regarding the work accomplished in FY24 to support end states are provided in *Exhibit 3, FY24 Metrics Demonstrating Successful ESCM TO Performance.*

Exhibit 2, ESCM TO Accomplishments in FY24

Task Order Development and Implementation	Discussion
Developing a proposal to combine A1W D&D scope into TO 5.1. This proposal is anticipated to be submitted and negotiated in early FY25.	This is a Cost-Plus Incentive Fee (CPIF) TO funded by the Navy that supports Naval Reactors commitments for excess facility D&D. This change to the TO definitizes completion of D&D of the Navy prototype reactor A1W (Aircraft Carrier 1st Generation Westinghouse) into the End State TO 5.
Submitted the CD-2/3, Approve Performance Baseline/Approve Start of Construction and TO proposal for the ICDF Construction TO (TO 4.2) (Project 2). Approval is anticipated to occur in early FY25.	This is a CPIF TO that supports timely disposal of RWMC, NRF, and Excess Facilities demolition waste at ICDF.

Exhibit 3, FY24 Metrics Demonstrating Successful ESCM TO Performance

Activity	Metrics
IMC Phase 2 (TO 3.2)	
Program Support Activities	Completed DOE Procurement Evaluation & Re-engineering Team (PERT) audit and obtained procurement authority Completed annual Mission Information Protection Program (MIPP) Assessment and obtained 1-year Authority to Operate (ATO) Completed Earned Value Management System (EVMS) compliance assessment and obtained DOE approval Rolled out the Idaho Mission Planning Completion Tool (IMPCT) system to support long-range planning Completed Owner/User Boiler/Pressure Vessel Inspection Program audit by National Board Inspection Code with zero findings - first year since inception of program 27 years ago that audit was completed with no deficiencies Completed more than 1,500 linear feet of fire water piping replacements, paved disturbed areas and installed 5 pressure indicating valves (PIVs), and installed 2 new curb valves and 2 new hydrants for the Bondstrand Fire Water (FW) replacement project Completed the Idaho Nuclear Technology and Engineering Center (INTEC) cell phone coverage upgrades at CPP-666, CPP-603, CPP-1697, and CPP-659 Completed CPP-606 subsidence repairs Completed the Emergency Communications Systems (ECS) Alt #1 upgrade on CPP-652, CPP-655, CPP-679, CPP-1606, CPP-1662, CPP-1646, and CPP-1684 Completed CPP-603 roof repairs Completed Deep Well Cable Replacement Completed COM-UTI-616 Compressor Replacement Completed 902 Crane Replacement Completed Electric Vehicle (EV) charge station installation at the Sawtelle Street Facility (SSF) and INTEC Completed CPP-666 Annex Heating, Ventilation, and Air Conditioning (HVAC) upgrades
Waste Programs	Completed Advanced Mixed Waste Treatment Plant (AMWTP) Nevada National Security Site (NNSS) Waste Certification Audit Completed 3 shipments of Newly Generated Low-Level Waste/Mixed Low-Level Waste (LLW/MLLW) to offsite treatment/disposal Completed 25 Hazardous, Industrial, Recyclable, Toxic Substance Control Act (TSCA), Universal (HIRTU) shipments to disposition Completed 5 shipments of Naval Reactor Facilities (NRF) wastes to offsite Treatment, Storage, and Disposal Facilities (TSDFs) Received and disposed 203 Roll-on, Roll-off (RORO) containers of LLW soil and debris and 5 containers of soil and debris from INTEC, NRF, and AMWTP– 2,900 metric tons disposed
TRU Programs	Completed more than 60,000 waste container movements to support transuranic (TRU) waste disposition Certified 301 cubic meters (m3) of Site Treatment Plan (STP) waste which is 73% of the total waste stream Completed 741 (A/O 7/29/24) shipments of TRU to the Waste Isolation Pilot Plant (WIPP) over contract life with 370 shipments, 1,578.9 m3, in FY24 – 79% of WIPP receipts Certified 1,142 m3 of the FY24 goal of 1,350 m3 of Contact-Handled (CH)-TRU Agreement to Implement (ATI) Waste (goal reduced to 790 m3 due to FY23 carryo-ver). This exceeds the annual waste certification requirements by 352 m3. Initiated planning and development of Ultrasonic Testing (UT) to verify integrity of TRU compacted waste drums Completed testing of Supersacks to replace Standard Waste Boxes (SWBs) as TRU waste overpacks Completed sizing, treatment, and processing of 14 Lot 11 containers of Remote-Handled (RH)-TRU Completed characterization and packaging of 60 drums of RH-MLLW
AICDF-Project 1	Completed site preparations for cell 3, including rough excavation of the cell and construction of the berms for the landfill and the evaporation ponds – Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility (ICDF) Project 1 initiated under IMC 3 Phase 2 (TO 3.2) Submitted Critical Decision (CD) 2/3 (Performance Baseline/Start of Construction) to DOE for approval in support of ICDF Construction start (ICDF Project 2) Completed the Remedial Design/Construction Work Plan and finalized the Remedial Action Work Plan for the cell expansion Submitted the Safety Design Strategy (SDS) for DOE review

SNF Management	Completed 10 additional transfers of Peach Bottom spent fuel baskets from Gen1 to Gen2 vaults for a total of 30 of 40 total required transfers Continued INTEC Distributed Control System (DCS) upgrades Commenced main fuel storage basin cleanout Commenced CPP-659 cell cleanout

Exhibit 3, FY24 Metrics Demonstrating Successful ESCM TO Performance (continued)

Activity	Metrics
RWMC Closure End State (TO4)	
ARP D&D	Completed transfer of over 3,500 containers from WMF-698 to support the Subsurface Disposal Area (SDA) Closure Completed demolition and placement of debris from the Accelerated Retrieval Project (ARP) structures II, III, V, VII, VIII, and IX Demolished and placed debris from WMF-698
SDA Cap	Completed SDA cap design improvements
AMWTP Closure	Completed waste removal from WMF-636 Pad 2 two months ahead of schedule Completed processing 28 crit cleanout product drums with found liquids Commenced processing pre-2020 crit cleanout product drum population Processed remaining Argonne East 102/105 rework containers Repaired and upgraded AMWTP Treatment Facility (TF) ventilation damper power supplies
Naval Reactors (TO5)	
S1W (Submarine 1st Generation Westinghouse) Reactor	Continued dismantlement of S1W prototype Completed removal of East/West Steam drums and completed Pressurized Reactor Vessel (PRV) primary system draining Completed upper hull machinery removal and outer hull section removal to access Reactor Vessel and commenced Reactor Vessel lead shielding removal Recycled more than 533 tons of material for a cost avoidance of >$743,000 Began S1W Area 4 hot cell demolition preparation Commenced removal of lead shielding in S1W Area 6 Completed the deactivation of NRF-601 Completed demolition of Areas 1, 2, and 7 Completed clean out, characterization, and fill of S1W deep cells Received approval from NR to conduct explosive demolition of the superstructure
A1W (Aircraft Carrier 1st Generation Westinghouse) Reactor	Completed turnover of the A1W complex from NRF to IEC four years ahead of schedule Completed the demolition of NRF 627, 617, 617A, and 617B Completed Asbestos Containing Material (ACM) abatement in Area 1 and commenced ACM abatement in Areas 2, 3, and 6 Commenced design and construction of alternative access roads and gates to A1W
S5G (Submarine 5th Generation General Electric) Reactor	Submitted S5G Draft Engineering Evaluation/Cost Analysis (EECA) for the Idaho Department of Environmental Quality (IDEQ) and Environmental Protection Agency (EPA) reviews Completed preparation for turnover of S5G to IEC by 10/31/24
Core Car	Completed Saw Assembly prototype testing Completed fabricating the Removable Shipping Container (RSC) Mockup Completed fabricating the Bucket Loading Station Commenced loadout basin cleanout to support Core Car processing equipment

Exhibit 3, FY24 Metrics Demonstrating Successful ESCM TO Performance (concluded)

Non-Defense Project (T06)	
Management of NRC Licensed Facilities	• Completed license-required surveillances and maintenance activities • Completed final concrete repairs of all Horizontal Storage Modules • Completed asphalt entry work around the delta barrier and installed new asphalt walkway • Completed triennial Nuclear Regulatory Commission (NRC) inspection at Three Mile Island Unit 2 (TMI-2) and Fort Saint Vrain (FSV) - no findings/observations
Tank Closure (TO7)	
IWTU Operations	• Completed unplanned granulated activated carbon (GAC) bed outage • Completed unplanned Process Gas Filter (PGF) outage, replacing all 18 filter bundle elements • Completed final testing and commencement of Nitrogen gas generating system operations on electrical supply • Upgraded Carbon Dioxide (CO2) supply system • Replaced Denitration Mineralization Reformer (DMR) CO2 purge heaters • Replaced PGF flowmeters • Performed TPR-7900 Integrated Waste Treatment Unit (IWTU) Preparation for Startup • Completed IWTU outage and commenced sodium-bearing waste (SBW) operations – processed 58,094 gallons in FY24 for a total of 126,142 cumulative gallons (13%) processed to date • Completed vault storage construction pad • Commenced construction of Product Storage Building (PSB)-II– 60%+ complete
SNF	
Road Ready Demonstration	• Planning and design underway for movement into construction, fabrication, and procurement efforts • Integrating Batelle Energy Alliance (BEA) deliverables into the project • Continuing to refine approach to capitalize on IEC small business teaming sub-contractor capabilities • Continuing investigation of commercial fuels processing equipment and review of lessons learned that is expected to result in significant cost avoidance for the Idaho Cleanup Project (ICP) • Completed 603 ramp fill-in conceptual design and initiating construction • Completed large cask insert conceptual design and turn table mods and initiated fabrication • Completed refining the canister loading process to depict the sequence of activities using commercial fuel management processes • Completed report on regulatory authority for Road Ready Demonstration and Staging facility projects
Staging Pad project	• Made progress with the SDS delivery and Preliminary Project Execution Plan completion deliverables • Planning and design and are moving into construction, fabrication, and procurement efforts • Progressed CD-1 package (conceptual design complete, safeguards design vetted with DOE Headquarters [HQ]) • Completed Geotech investigation and report • Continue to support DOE with the Analysis of Alternatives
Calcine	
Calcine Project	• Addressed DOE comments on 3116 documents and submitted it for NRC consultation and public review. Requests for Additional Information from the NRC are being addressed. • Successfully ran the Calcine mockup through over 100% of material volume from bin-set one • Entered the outage for the mockup and have completed much of the scope, which includes rerouting the transfer line, system modifications, crane repair in addition to a new sump pump in CPP-691 • The Information Collection Request (ICR) for the Calcine project was completed, and the team is commenting on factual accuracy and including the input into the project

A. Background

The ICP work encompasses ongoing and contemplated work scopes, to include:

- Continuing IMC Phase 2 work scopes to assure programmatic support and CERCLA actions
- Completing treatment of the liquid SBW
- Closing the INTEC tank farm
- Operating and closing the RWMC
- Dispositioning TRU and mixed wastes
- Completing the SDA cap and closure of the SDA
- Deactivating and dispositioning the AMWTP
- Stabilizing and packaging SNF and HLW to make it "Road Ready"
- Operating and maintaining the balance of plant at INTEC to support ongoing programs (Calcine Disposition Project, Spent Fuel Programs, Tank Closure)
- Supporting Naval Reactors for the disposition of aging facilities (Funded by NRF)
- Managing fuels for NRC-licensed facilities at Fort St. Vrain and TMI-2 (non-defense funded)
- Completing D&D of excess facilities

The ICP contract is an IDIQ End State completion contract with an estimated contract ceiling of $6.4 billion (B) over a 10-year ordering period (FY22 – FY31), with the option to award additional End State TOs prior to the last day of the 10-year ordering period for up to an additional five years (ending in FY36). Additional funding may be provided for non-EM work such as Naval Reactors.

B. Regulatory Milestones, Life-Cycle Baseline, and Office of EM Goals and Priorities

B.1 Regulatory Milestones

The ICP regulatory milestones are contained in the 1995 Idaho Settlement Agreement (ISA), 2019 Supplemental Agreement (SA), the 2008 Agreement to Implement (AI), the Site Treatment Plan (STP), the Colorado Settlement Agreement, and the Notice of Noncompliance Consent Order (NNCO).

There are many milestones associated with these agreements and directives with targets within the ICP contract ordering period. A complete listing can be found in: Idaho National Laboratory Regulatory documents. Below are some examples of applicable milestones:

- Allocate to and make from the State of Idaho 55% of all TRU waste shipments received at WIPP for INL TRU waste (annually) (surpassed this goal for past three years)
- SBW Treatment Facility (IWTU) commence operations and fill one canister (9/30/2022) (complete)
- Complete TRU Storage Area – Retrieval Enclosure (TSA-RE) closure (4/30/2023)
- Complete transfer of all spent fuel from wet storage to dry storage (12/31/2023) (complete)
- Calcine Treatment Facility commence operations (3/31/2024)
- SBW Treatment Facility (IWTU) complete 15% treatment (9/30/2024 and annually thereafter)
- Certify 25% ISA (Original Volume) Contact-Handled (CH) TRU contaminated waste (9/30/2024) (accomplished each of the past three years)
- Submit Draft Comprehensive Remedial Action Report for Operable Unit (OU) 7-13/14 (Phase 3 – SDA cap completion) (12/31/2028)

- Complete SDA Cap (12/31/2028) – Includes the installation of the evapotranspiration soil cap over the SDA and restoration of the area to natural vegetation
- Remove all spent fuel (including TMI spent fuel) from Idaho (1/1/2035)
- Calcine Waste Road Ready (12/31/2035) – Requires the design and testing of calcine retrieval systems and the retrieval, processing, and packaging of calcine and carbonated waste to make them road ready
- Treat the entire Radioactive Waste Disposition Project (RWDP) Backlog (9/30/2045) (outside of the ICP contract ordering period)

B.2 Life-Cycle Baseline

The ICP Performance Measurement Baseline (PMB) was submitted and approved by DOE as part of the ICP IMC TO. Each TO released under this contract will include a stand-alone schedule that is initiated and managed in the PMB in accordance with the ICP End State Contract requirements found in Section C.9.2.01 Program Management/Support/Administration.

B.3 Office of EM Goals and Priorities

The DOE EM stated priorities are as follows:

- Protection of the workforce, public, and the environment
- Activities to maintain a safe, secure, and compliant posture
- Radioactive tank waste stabilization, treatment, and disposal
- SNF storage, receipt, and disposition
- Nuclear material consolidation, stabilization, and disposition
- TRU and MLLW disposition
- Soil and groundwater remediation
- Excess facilities D&D

The primary roadblock to achieving EM Goals in a fiscally responsible manner is adequate, predictable funding. Inadequate funding will drive contract completion to FY70 or beyond and cost >$1.5B more over the life of the contract.

IEC's management approach for the execution of the ICP IDIQ Performance Work Statement (PWS) is in direct alignment with these priorities subject to the provision of adequate and predictable funding as discussed in the Executive Summary and in Section G.1. Funding Risk/Liability.

C. Task Order (TO) Discussions

C.1 Overall Strategy for Managing Task Orders

The ICP work scope will be performed using focused TOs to achieve desired End States deploying a TO management process that is forward-looking, adaptive, and flexible, and that integrates DOE priorities across the ICP. Task orders will be administered in a manner to maximize efficiency with integrative management opportunities across all tasks. The TOs to be executed during the contract period of performance are shown in *Exhibit 4, Notional End State Task Order Contract Strategy*. This exhibit provides a synopsis of the partnering sessions and aligned strategic imperatives between DOE ICP and IEC. Note that the exhibit contains total rough estimated costs for TO completion, assuming the Predictable TYP funding levels shown in the Executive Summary.

Exhibit 4, Notional End-state Task Order Contract Strategy

Task Order/Activity Scope	Rationale for Scope	Contemplated Contract Type	Incremental Milestones	Completion Definition	Task Order Potential Period of Performance	Rough Estimated Cost Negotiated Value
IMC Phase 2 Task Order (TO3.2)	**Core Contract Support Programs and Task Order Definitization**	**CPAF (w/PEMP)**	**Evaluate work scopes for potential conversion to independent task orders. Includes continuity of operations pending the transfer of scope to individual task orders identified below**	**End of Contract**	**FY24 – FY31 with periodic updates**	**$689M/2 yrs (FY24-FY25)**
RWMC Closure End State Task Order (TO4)	**Combination of activities to achieve RWMC Closure**				**FY23 – FY36**	**$816.7M**
ARP/SDA Demolition and OCVZ Well Abandonment (TO4.a, negotiated)		CPIF	ARP/SDA Demolition complete and completion of OCVZ Well Abandonment	Complete demo & closure ARP/SDA facilities and OCVZ Well Abandonment	FY23 – FY25Q1	$82.2M
Additional Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility Landfill Cell and Evaporation Pond Project 2 (AICDF-Project 2)		CPIF	CD1, CD2, CD3 completion prior to construction start. Construction of ICDF new cell and evaporation pond and turnover to operations	Complete construction and operational turnover of ICDF	FY25 – FY27	$99.5M
SDA Cap Installation		CPIF	Risk Mitigation for roads and stormwater runoff in preparation for cap construction; CD1, CD2, CD3 completion and completion of ARP demolition prior to construction start. Complete site preparation, backfill SDA, 1st load of dirt to SDA, 25, 50, 75% dirt hauled; cap complete; report submitted	Complete cap installation	FY26– FY33	$190M
AMWTP Treatment Facility RCRA Closure & Demolition		CPIF	RCRA Closure and Demolition of AMWTP Treatment Facility	Complete demo & closure of AMWTP Treatment Facility	FY32 – FY36	$250M
AMWTP Storage Facilities RCRA Closure & Demolition		CPIF	RCRA Closure and Demolition of 9 AMWTP Storage Facilities	Complete demolition and closure of AMWTP Storage Facilities	FY32 – FY36	$195M
Naval Reactors End State Task Order (TO5)*	**Removal & Disposition of Aging Naval Facilities**				**FY24 – FY31**	**$299M**
NRF Prototype Facilities D&D (TO5.1, negotiated) to include S1W, A1W, and S5G		CPIF	Documentation to demonstrate closure & demo complete of NR facilities	Complete demolition of specified NRF facilities	FY24 – FY31	$240M
Core Car		TBD	Delivery of the Core	Core Car disposition complete	FY27 – FY30	$59M
Non-Defense Project Task Order (TO6.1, negotiated) *	**Manage Fuels in NRC licensed facilities, including Ft. St. Vrain**	**CPFF**	**Includes continuity of operations for non-defense work**	**Manage fuels in NRC licensed facilities as directed**	**FY24 – FY31 with biennial updates**	**$9.3M/2yrs**
Tank Closure End State Task Order (TO7)	**Activities required to complete Tank Closure**				**FY24 – FY30**	**$763M**
IWTU Operations (TO7.1, negotiated)		CPFF	Maintain hot operations/routine operations/milestones - complete 15% SBW treatment (9/30/2024 & annually thereafter)	Complete tank waste processing	FY24 – FY29 with triennial updates	$342M/3 yrs
Tank Closure (4 tanks & supporting structures)		CPIF	Close, clean & grout all 4 tanks and associated systems, place interim cap over tanks (regulatory doc for closure)	Complete tank closure & placement of interim cap	FY27 – FY30	$65M
SNF Transfer & Packaging End State Task Order	**Activities required to prepare & ready HLW & SNF for shipment**				**FY27 – FY50**	**TBD**
SNF Staging and Packaging Capability Line Item		CPIF	CD1, CD2, CD3 completion prior to construction start. Construct processing capability for staging SNF packages	Complete construction of SNF Staging and Packaging Capability	FY27-FY31	$200M
Packaging Fuel Operations for Staging		CPIF	Initiate repackaging & 50th,100th repack, etc. complete	Complete SNF packaging for staging	FY30 – FY50	TBD
Calcine Disposition End State Task Order	**Activities to support retrieval/processing & disposition of calcine waste**				**FY28 – FY59**	**TBD**
Calcine Project and Bin Set Closure Line Item		CPIF	CD1, CD2, CD3 completion prior to construction start. Construct calcine treatment and packaging facility.	Complete construction and operational turnover of Calcine Treatment Facility	FY28– TBD	$3B - $7.5B
Calcine Processing and Operations		CPIF	First canister produced, 50th, 100th, processing complete	Complete canister processing	FY34 – FY59	TBD
Excess Facilities Demolition End State Task Order	**Accelerated Removal of Excess Facilities to Reduce Liability and Costs**	**FFP**	**Will be established during Subtask development as specific facilities are identified for demolition**	**Complete demolition of excess (primarily non-radiological) facilities as directed**	**FY27 – FY36 with biennial updates**	**TBD**

Key IMC P2 | RWMC | Navy | Non-Defense | Tanks | SNF | Calcine | Excess Facilities *Funded by NRF or other source

Each TO will be managed as a project with a beginning and clearly defined end date, concise interim milestones for performance measurement, and agreed-to end states. The contract type used for each TO will be determined based on the degree of variability and risk associated with each TO.

The following contract types will be used for ICP TOs, depending upon the scope variables associated with each TO at the time of development:

- Cost Plus Award Fee (CPAF)
- Cost Plus Incentive Fee (CPIF)
- Cost Plus Fixed Fee (CPFF)
- Firm Fixed Price (FFP)

Anticipated TOs for the 10-year Contract Period are discussed individually in Section C.2.

C.2 Anticipated Task Orders for the 10-Year Contract Period

The ICP contract is structured under the ESCM to accelerate cleanup, safely achieve significant reduction of environmental risk and financial liability and align with EM goals for the timely environmental cleanup at the site. Execution of the ICP mission will be completed using the TOs described in Sections C.2.a through C.2.g.

C.2.a Integration & Mission Continuity (IMC) TO Phase 2 (TO3.2)

The IMC TO (TO3) has been implemented in two phases, phase 1 and 2, to support a clear understanding of the work scopes and suitability for capture in future End State TOs. It is not an End State TO. Phase 1 activities were completed 9/30/23, at which time activities that were not completed or were ongoing at the completion of Phase 1 were transferred to Phase 2 of the IMC TO. TO 3.2 includes a base period of two years from October 1, 2023, to September 30, 2025, with the ability to extend the period of performance for the duration of the IDIQ contract.

IMC Task Order Phase 2 (TO3.2)	
Rationale	Core Programs that support for contract duration and include continued evaluation of work scopes for potential conversion to independent Task Orders
Scope	Core contract support programs and TO definitization
Period of Performance	FY24 – FY31, subject to reviews, negotiations, and updates
Estimated Cost	$689 negotiated value for FY24 and FY25 Extend as appropriate
Contract Type	CPAF with annual Performance Evaluation Measurement Plan (PEMP)
Completion Definition	Contract End

With the conclusion of Phase 1 on 9/30/23, the following support activities that are not tied to a specific End State but that have overarching impacts during the life of the contract and were transferred to IMC Phase 2. These include:

- Program Management & Support Functions/Indirects – Business services, core safety programs supporting all projects, CERCLA – Environmental Restoration
- Maintenance of facilities in safe and compliant conditions
- Facility and Infrastructure Upgrades – Specific facility and infrastructure upgrades will be addressed as identified during project execution

- Transfer of Peach Bottom fuel assemblies from Gen1 to Gen2 vaults
- Certification, packaging, and shipping of RH-TRU waste in shielded containers – As waste and the WIPP are available
- Retrieving/Processing and Shipping RH-MLLW – As waste and transportation are available
- Additional Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility Landfill Cell and Evaporation Pond Project 1 (AICDF-Project 1) – ICDF must be expanded to receive waste from site-wide CERCLA D&D activities and large components from D&D of Naval Reactor facilities.

Additional activities included in IMC Phase 2 have a high degree of risk that must be mitigated to support the development of clearly defined scopes for End State TOs. These include:

- Legacy Waste Disposition (CH-TRU and MLLW)
- INTEC Facility Modifications and SNF Packaging Demonstration (CPP-603)
- Design/Construction of SNF Staging and Packaging capability
- Calcine Disposition Project
- Design/Construction of the Calcine Processing capability

It is expected that End State TO scopes will be refined and definitized during Phase 2 of the IMC TO (TO 3.2) to support the development of future End State TOs. These activities directly impact the completion of the contemplated End State TOs.

These activities are described in *Section G. Risk and Liability*, which identifies the specific risks to be addressed and mitigated to support development and implementation of discrete End State TOs. Each risk identified is tied to funding decisions, commodity availability, commercial processing availability, and other risks that must be addressed now to support future End State accomplishments.

Rationale for TO Selection. TO3 is stipulated in the ICP End State contract. Phase 2 of the IMC TO (TO 3.2) recognizes that there are programmatic support elements that will be required over the life of the contract. These were captured first in Phase 1 and now in Phase 2 until contract end.

Phase 2 of the IMC TO includes programmatic support activities for the life of the contract, as well as any high-risk activities not resolved in Phase 1; specifically, longer-term activities for which uncertainties could not be adequately quantified during Phase 1. The PEMP is updated annually for each fiscal year. This IMC Phase 2 TO (TO 3.2) supports a safe, secure, and compliant posture across the contract in accordance with DOE ICP stated priorities. This approach also assures that all contemplated incentives and objectives for the IMC TO are managed under an individual PEMP, reducing the administrative burden. and associated costs with management of multiple PEMPs. Finally, the approach assures that as interrelationships are clearly defined the subsequent End State TOs are less subject to burdensome contract change management processes.

Scope and Period of Performance. Phase 2 of the IMC TO will continue to house the core programs that maintain a comprehensive and effective continuity capability across ICP projects to support achievement of defined End States throughout the life of the contract. Phase 2 began 10/1/2023 with a period of performance through FY31. Phase 2 will be updated as needed to support core missions and continuity in the provision of programmatic support. Phase 2 of the IMC TO will be evaluated, extended, and modified to reflect changing conditions and priorities and to reflect the integration of specific activities into the End State TOs. The relationship

between each of these IMC TO3 activities and the associated End State TOs is shown in *Exhibit 5, ICP Ten-Year End State Contract Flowchart.*

Estimated Cost. The IMC Phase 2 TO (TO 3.2) costs were developed utilizing appropriate cost estimating processes consistent with IEC-established estimating and accounting principles / procedures and Federal Acquisition Regulations (FAR) Part 31, Contract Cost Principles and Procedures.

Contract Type. Phase 2 of the IMC TO is managed as a CPAF TO, with an annual PEMP, as stipulated in the ICP End State contract. The PEMP, which includes Performance Based Incentives (PBIs) and subjective criteria, is updated annually to reflect targeted scopes and changing conditions.

Completion Definition. The IMC TO is not an End State TO.

C.2.b RWMC Closure End State TO (TO4)

Rationale for TO Selection. The End State desired is closure of the RWMC. The rationale for the five sub-tasks acknowledges the required major aspects of closure, including requirements for demolition waste disposal at ICDF, but also allows for optimization and flexibility between the tasks and provides the opportunity to maximize multiple fronts of progress as situations develop in any one area such as legacy waste processing or delays in shipping.

Scope and Period of Performance. The RWMC Closure End State TO scope includes all activities needed to close the RWMC, including RCRA closure, demolition, and capping of the SDA; OCVZ well abandonment; closure and demolition of RWMC treatment and storage facilities; and waste disposal at ICDF. Tied to this is waste treatment and processing in the ARPs and AMWTP to support D&D of the facilities while assuring ongoing support to the INL Site.

RWMC Closure End State Task Order (TO4)	
Subtask 4a – ARP/SDA Demolition and Organic Contamination in Vadose Zone (OCVZ) Well Abandonment (TO4a)	
Subtask 4.2 – AICDF-Project 2	
Subtask 4.3 – SDA Cap Installation	
Subtask 4.4– AMWTP Treatment Facility Resource Conservation and Recovery Act (RCRA) Closure & Demolition	
Subtask 4.5 – AMWTP Storage Facilities RCRA Closure & Demolition (9 Facilities)	
Rationale	Combination of activities to achieve RWMC Closure
Scope	Complete waste operations, complete ICDF expansion, close and demolish RWMC facilities, abandon OCVZ wells, construct evapotranspiration cap over the SDA, and revegetate RWMC
Period of Performance	Subtask 4a: FY23 – FY25Q1
	Subtask 4.2: FY25 – FY27
	Subtask 4.3: FY26 – FY33
	Subtask 4.4: FY32 – FY36
	Subtask 4.5: FY32 – FY36
Estimated Cost	$816.7M
Contract Type	CPIF
Completion Definition	RWMC Closed

The entirety of this work will be accomplished under five Subtasks:

- Subtask 4a – ARP/SDA Demolition and OCVZ Well Abandonment (TO4a)
- Subtask 4.2 – Additional Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility Landfill Cell and Evaporation Pond Project 2 (AICDF-Project 2)
- Subtask 4.3 – SDA Cap Construction

- Subtask 4.4 – AMWTP Treatment Facility RCRA Closure & Demolition
- Subtask 4.5 – AMWTP Storage Facilities RCRA Closure & Demolition (9 facilities)

The first Subtask for ARP/SDA Demolition and OCVZ Well Abandonment was awarded on 9/30/2022 as TO4a. This Subtask will be completed in the first quarter of FY25. The expected period of performance for TO4, including all Subtasks, is FY23 through FY36. The anticipated period of performance for each Subtask is:

- Subtask 4a – ARP/SDA Demolition and OCVZ Well Abandonment (TO4a) is currently in progress and is scheduled and is on track for completion in the first quarter of FY25.
- Subtask 4.2 – AICDF-Project 2 is expected to begin in FY25 and end in FY27.
- Subtask 4.3 – SDA Cap Construction may run from FY26 through FY33 (TO development pending RTP expected in FY25 if funding is available to support).
- Subtask 4.4 – AMWTP Treatment Facility RCRA Closure & Demolition may run from FY32 through FY36.
- Subtask 4.5 – AMWTP Storage Facility RCRA Closure and Demolition will run from FY32 through FY36.

Estimated Cost. The estimated total cost for TO4 RWMC Closure is $816.7M that includes a $82.2M negotiated value for completion of Subtask 4a - ARP/SDA Demolition and OCVZ Well Abandonment (TO4a) which was implemented on 10/1/22 and will be completed in the first quarter of FY25.

Historical experience was utilized to develop the TO4 cost estimate to reasonably represent the effort required to perform the task order outlined scope. The main technique used was the actual costs of similar projects. The Project Team compared previous ARP D&D estimates to the size and complexity of the remaining ARPs to develop a defensible basis of estimate. Similar scope resources and quantities were then aligned to the task order WBS and activities. Similar methodologies will be used to develop the remaining TO4 Subtask cost estimates during TO preparation.

Contract Type. TO4 will be completed as a CPIF TO. The CPIF TO structure for this TO is intended to balance the risk appropriately and motivate efficient and effective contract performance. It is intended for IEC to bear an equitable share of the risk but also be compensated for optimum contract performance and for assuming risk.

Completion Definition. The RWMC Closure End State TO will be considered complete when the SDA and AMWTP treatment and storage facilities have been demolished and closed, the OCVZ wells have been abandoned, the cap has been installed over the SDA, and the RWMC has been returned to natural vegetation.

C.2.c Naval Reactors End State TO (TO5)

Naval Reactors End State Task Order (TO5)	
Subtask 5.1 – Naval Reactors Prototype Facilities D&D – S1W, A1W, and S5G (TO5.1, negotiated)	
Subtask 5.2 – Core Car	
Rationale	Removal and disposition of aging Naval facilities
Scope	Aging facilities and core car disposition
Period of Performance	Subtask 5.1, S1W Facility D&D: FY24 – FY26Q1
	Subtask 5.1, A1W Facility D&D: FY25 – FY29
	Subtask 5.1, S5G Facility D&D: FY26 – FY31
	Subtask 5.2: FY26 – FY29
Estimated Cost	$299M
Contract Type	CPIF for Subtask 5.1; Core Car Contract Type TBD
Completion Definition	Complete S1W, A1W, and S5G facilities demolition and Core Car disposition

Rationale for TO Selection. The rationale for segregating the Naval Reactors TO is to assure that the scope of work is clearly defined for each contemplated action that the Navy expects to have accomplished as part of its efforts to reduce risk to the Naval Reactors Facility (NRF) and the INL Site in general. Further, some work contemplated, such as the Core Car Subtask, may require extensive use of existing or modified EM facilities sequenced with ICP scopes to complete the desired End State and is not necessarily interrelated to other Naval Reactors facility scopes.

Scope and Period of Performance. The scope of this TO is to provide services and expertise to Naval Reactors in the disposition and removal of aging facilities. The contemplated scope at this time includes two scopes of work identified as Subtask 5.1 – Naval Reactors Prototype Facilities D&D - S1W, A1W, and S5G Facilities, and Subtask 5.2 – Core Car. Additional scope may be added at the discretion of the Navy. This is non-EM work and funding for these activities will be provided by an outside source.

The period of performance contemplated for the Naval Reactors End State TO is specific to the currently identified scopes but could expand and will be addressed as additions to the TO, as required. The current periods of performance for these Subtasks are:

- Subtask 5.1 – Naval Reactors Prototype Facilities D&D, FY24 through FY31
  - S1W Facility D&D, FY24 through FY26Q1
  - A1W Facility D&D, FY25 through FY29
  - S5G Facility D&D FY26 through FY31
- Subtask 5.2 – Core Car, FY26 through FY29

Subtask 5.1 for the S1W D&D was awarded in September of 2023 as TO5.1. Scope for A1W and S5G D&D will be added to TO5.1 in subsequent contract modifications.

Estimated Cost. The estimated total cost for TO5 Naval Reactors End State TO is $299M, with $58.2M negotiated value for completion of Subtask 5.1, S1W Facility D&D (TO5.1). Various estimating techniques were used to develop and cost the scope of work to provide the highest quality product possible. The main technique used was the actual costs of similar D&D projects.

Contract Type. A CPIF TO is contemplated for the Subtasks under the Naval Reactors End State TO with the exception of the Core Car Subtask for which the contract type is TBD.

Completion Definition. This TO will be considered complete when the S1W, A1W, and S5G facilities are demolished and dispositioned and the Core Car is dispositioned.

C.2.d Non-Defense Project Task Order (TO6.1)

Non-Defense Project Task Order (TO 6.1, negotiated)	
Rationale	Manage Fuels in NRC licensed facilities, including Ft. St. Vrain
Scope	Manage fuels in NRC-Licensed facilities as directed and maintain aging fuel facilities as needed
Period of Performance	FY24 – FY25, subject to reviews, negotiations, and updates
Estimated Cost	$9.3M/2 years
Contract Type	CPFF
Completion Definition	Manage fuels in NRC-licensed facilities as directed and manage/maintain aging facilities over the life of the contract

The Non-Defense Project TO is not an End State TO. It was awarded as TO 6.1 in September of 2023 to capture the scope and costs of managing Fort Saint Vrain (FSV) fuels in Colorado and on-site fuels from NRC licensed facilities, as well as TMI-2 at INTEC through the ICP period of performance.

Rationale for TO Selection. This TO recognizes the requirement to monitor and manage fuels from both FSV in Colorado and from on-site NRC-licensed facilities. Fuels at the FSV facility are scheduled for transfer to the Idaho Site by FY35 in accordance with the Colorado Settlement Agreement. Once at the Site, FSV fuels and fuels from on-site NRC licensed facilities will be packaged for disposition at a yet-to-be-determined Federal High-Level Waste (HLW) Repository.

Scope and Period of Performance. TO6.1 includes a base period of two years from October 1, 2023, to September 30, 2025, with the ability to extend the period of performance for the duration of the IDIQ contract.

Estimated Cost. This TO is a separate funding source that costs ~$4.7M/year based on historical costs for this fuel management and facility maintenance activity. This cost will be escalated in two-year increments over the contract period.

Contract Type. This TO will be managed as a CPFF contract. CPFF was selected as the work scope is stable and well understood, considered a low risk to the government and contractor, and represents the best value contract type to the government.

Completion Definition. While not an End State TO, IEC will manage and maintain the FSV fuels and fuels from on-site NRC-licensed facilities as directed and manage/maintain aging facilities over the life of the contract.

C.2.e Tank Closure End State TO (TO7)

Tank Closure End State Task Order (TO7)	
Subtask 7.1 – IWTU Operations (TO7.1, negotiated)	
Subtask 7.2 – Tank Closure (4 tanks and supporting structures)	
Rationale	Activities required to complete tank closure and tank waste processing
Scope	Empty, close, clean and grout 4 tanks, treat SBW through IWTU, and place an interim cap over the tanks
Period of Performance	Subtask 7.1: FY24 – FY25 extended as needed
	Subtask 7.2: FY27 – FY30
Estimated Cost	$763M
Contract Type	Subtask 7.1: Cost Plus Fixed Fee (currently) Subtask 7.2: Cost Plus Incentive Fee
Completion Definition	Tanks are closed and capped with sodium-bearing waste packaged and "Road Ready" for final disposition

Rationale for TO Selection. The End State desired is tank closure. The rationale for the two Subtasks acknowledges that the IWTU is the instrument required to complete processing of the SBW and that subsequent tank closures are the actual completion desired. Subsequently Subtask 7.1 (TO 7.1) is an interim End-State TO that will be used to reach the desired End State of Tank Closure. Additionally, the opportunity to optimize the tank closure process remains open with a segregated TO strategy such that accelerated closure plans can be explored and implemented as appropriate.

Scope and Period of Performance. This TO encompasses the activities associated with closing four tanks located at the INTEC Tank Farm. This activity includes:

- Removal and treatment through IWTU of 900,000 gallons of SBW contained in the tanks
- RCRA closure and stabilization of the emptied tanks under DOE O 435.1, Radioactive Waste Management
- Placing an interim cap over the tanks

This TO includes Subtask (TO7.1) for maintaining the operational capability of the IWTU to treat the SBW and storage of treated SBW in the IWTU Product Storage Buildings to await final disposition in a Repository. TO7.1 was awarded in September of 2023.

The Tank Closure End State TO will include two Subtasks:

- Subtask 7.1 – IWTU Operations (TO 7.1)
- Subtask 7.2 – Tank Closure

The expected period of performance for the Tank Closure TO is FY24 through FY30. The periods of performance for the Subtasks are:

- Subtask 7.1 – IWTU Operations Subtask has been awarded as TO7.1 and includes a base period of two years from FY24 through FY25, with the ability to negotiate an extension period of FY26 through FY29
- Subtask 7.2 – Tank Closure is contemplated to begin in FY27 and end in FY30

Estimated Cost. The estimated cost of the Tank Closure End State TO is $763M. This includes $114M/yr to operate and then layup the IWTU and an estimated $65M over a four-year period for tank closures.

Contract Type. TO 7.1, IWTU Operations will be completed as a CPFF. The CPFF model represents the best value contract type to the government given the high-risk variability for schedule based on plant reliability. However, DOE may consider a CPIF-hybrid if risk sharing can be appropriately identified. Subtask 7.2, Tank Closure is contemplated to be completed as a CPIF contract. The CPIF structure is intended to balance the risk appropriately and motivate efficient and effective contract performance. It is intended for IEC to bear an equitable share of the risk but also be compensated for optimum contract performance and for assuming cost risk. Cost and performance incentives will be structured to include measurable targets with objective criteria to reward completion of the End State TO.

Completion Definition. This TO will be considered complete when the INTEC Tank Farm is closed and capped, and the SBW extracted from the tanks is treated, packaged, and placed in storage, awaiting final disposition.

C.2.f SNF Transfer and Packaging End State TO

Rationale for TO Selection. The chief objective for this TO is to reduce risk to ongoing fuel management to ultimately achieve "Road Ready" status by FY35 for fuels destined for the national HLW repository. While the risk for obtaining fuels repackaging capabilities cannot be ignored, the creation of the three tasks demonstrates commitment to meeting the regulatory milestone to the extent possible through both physical completion of fuel transfers, and tactically through planned implementation of the INL site fuels packaging capability, operations, and subsequent staging.

The wet-to-dry transfers of SNF originally contemplated as a Subtask to this TO were completed under TO3.1 and the transfer of Peach Bottom fuel assemblies originally contemplated is being completed under TO3.2.

SNF Transfer and Packaging End State Task Order	
Subtask 1 – SNF Staging and Packaging Capability Line Item	
Subtask 2 – Packaging Fuel Operations for Staging	
Rationale	Activities required to prepare and ready SNF for shipment
Scope	Complete fuel transfers to dry storage and package and prepare fuel for shipment out of the state of Idaho
Period of Performance	Subtask 1: FY27 – FY31
	Subtask 2: FY30 – FY50
Estimated Cost	TBD
Contract Type	CPIF
Completion Definition	SNF transferred from wet storage to dry storage (complete), retrieve and package all SNF from dry storge, store on-site awaiting shipment, ship SNF out of state, and close unneeded facilities and storage areas

Scope and Period of Performance. This TO scope includes preparation and packaging of fuel for shipment in accordance with the Idaho Settlement Agreement and closure of unneeded facilities and storage areas.

To support accomplishment of this End State, the SNF Staging and Packaging Capability Line Item will be essential to assure necessary infrastructure and processes are developed, tested, and proven to be effective.

To support this activity, IEC is developing an SNF packaging solution that will avoid extensive construction of new facilities. It involves an added station to the existing staging and packaging area. In combination with our Road Ready project, IEC is pursuing use of commercial processes involving a simpler cask transfer system that involves a below-grade handling cask transfer station that allows us to handle and transfer large Multi-Purpose Canisters (MPCs) and various transfer casks at close to grade level. With the future of establishing and staging road ready casks, this practical transfer station allows IEC to load long-term storage casks that will be staged on the CPP-2707 pad initially and then on our future staging capability which will add 210 cask storage positions. When an interim or geological repository is established, the transfer station will be used to transfer MPCs into transport casks for eventual rail transfer to the repository. IEC's selected subcontractor for this effort is the premier SNF packaging system solution and fabrication company worldwide. This strategic partnership allows us to capitalize on proven industry technologies and approaches to handling SNF in a cost-effective manner.

We anticipate that this work will be accomplished under two Subtasks:

- Subtask 1 – SNF Staging and Packaging Capability Line Item
- Subtask 2 – Packaging Fuel Operations for Staging

The period of performance for this TO is FY27 through FY50, Subtask 1 – SNF Staging and Packaging Capability Line Item will begin in FY27 and end in FY31 and Subtask 2 – Packaging Fuel Operations for Staging will begin in FY30 and end in FY50.

A portion of this scope is outside of IEC's contract ordering period. The desired status at the end of the 10-year contract period is:

- Facility modification and SNF packaging demonstration (CPP-603) complete
- SNF interim staging and packaging capability design complete
- SNF Staging and Packaging Capability Line Item complete

Estimated Cost. Estimated costs for this TO during the contract period are TBD. A cost estimate will be developed in the SNF Transfer and Packaging End State TO Proposal.

Contract Type. A CPIF TO is contemplated for the SNF Transfer and Packaging End State TO to balance the risk appropriately and motivate efficient and effective contract performance. It is intended for IEC to bear an equitable share of the risk but also be compensated for optimum contract performance and for assuming cost risk. Cost and performance incentives will be structured to include measurable targets with objective criteria to reward the completion of this End State TO.

Completion Definition. This TO will be complete when all SNF has been moved to dry storage, retrieved from dry storage, packaged, and shipped out of state, and the unneeded SNF facilities and storage areas have been closed.

C.2.g Calcine Disposition End State TO

Calcine Disposition End State Task Order	
Subtask 1 – Calcine Project and Bin Set Closure Line Item	
Subtask 2 – Calcine Processing and Operations	
Rationale	Activities to support retrieval, processing, and disposition of Calcine waste
Scope	Calcine processing and operations and Bin Set Closure
Period of Performance	Subtask 1: FY28 – TBD
	Subtask 2: FY34 – FY59
Estimated Cost	TBD
Contract Type	CPIF
Completion Definition	Complete canister processing of calcine waste and complete bin set closure, grouting, and interim cap placement

Rationale for TO Selection. A critical component to achieving the desired End State for Calcine "road ready" by 12/31/35 is assuring the demonstration project contemplated is completed under the IMC TO (TO3). However, it is also imperative that several variable issues beyond the demonstration must be resolved collaboratively to assure the End State remains achievable, including final determination and development of treatment processes, and corrective actions determined, further tested, and proven from the bin set retrieval pilot demonstration.

The contemplated Subtasks and their development and agreement are necessary to assure that all parties understand the need for clear and concise resolution of the variable issues as quickly as possible. This will better ensure that the final enabling processes, resources, and capabilities are established to support the End State TO. Further, segregation of the TO allows for continued examination and evaluation of optimized approaches that better allow for acceleration of processing, packaging, and closure as these processes are defined and implemented.

Scope and Period of Performance. Once the bin retrieval system and processing systems are successfully demonstrated and the final alternative selection is complete for waste processing, two Subtasks will be developed to achieve the Calcine Disposition End State:

- Subtask 1 – Calcine Project and Bin Set Closure Line Item
- Subtask 2 – Calcine Processing and Operations

The Subtasks for this End State will encompass all work needed to complete emptying of the Calcine bin sets, process retrieved waste, and package the waste to make calcine "Road Ready."

Upon completion of bin set retrieval, the scope will also include necessary actions to complete RCRA and DOE Order 435.1 HLW closure of the bin sets.

While a large portion of this scope is outside of the IEC contract ordering period, the period of performance for these Subtasks is anticipated to be FY28 through TBD for Subtask 1 and FY34 to FY59 for Subtask 2.

The desired status at the end of the 10-year contract period is:

- Complete Calcine Demonstration Project (Retrieval Development/Mock-up)
- Complete the evaluation and testing to determine path for Calcine treatment
- Design and Construct Calcine treatment capability

Estimated Cost. Estimated costs for this TO are yet to be determined due to the uncertainties surrounding Calcine treatment technologies selection, successful completion of the Calcine Demonstration Project, and modifications of existing facilities to enable retrieval and treatment.

Again, the intent is to avoid large-scale construction and capitalize on available commercial technologies and capabilities to provide reliable and cost-effective treatment capabilities. Once these uncertainties are resolved, costs for the two contemplated TO Subtasks will be developed.

Contract Type. A CPIF TO is contemplated for the Calcine Disposition End State TO, to balance the risk appropriately and motivate efficient and effective contract performance. It is intended for IEC to bear an equitable share of the risk but also be compensated for optimum contract performance and for assuming cost risk. Cost and performance incentives will be structured to include measurable targets with objective criteria to reward the completion of this End State TO.

Completion Definition. The Calcine Disposition End State TO will be considered complete once the Calcine bin sets are emptied; the calcine is processed, packaged, and made "Road Ready;" and the bins are closed, grouted, and capped.

C.2.h Excess Facilities Demolition End State TO

Excess Facilities Demolition End State Task Order	
Rationale	Accelerated removal of Excess Facilities to Reduce Liability and Costs
Scope	Demolish deactivated/unneeded non-radiological facilities (AM-WTP/INTEC admin. Bldgs., maintenance facilities, storage facilities, etc.)
Period of Performance	FY27 – FY36 subject to reviews, negotiations, and updates
Estimated Cost	TBD
Contract Type	FFP
Completion Definition	Complete demolition of excess facilities as directed

Rational for TO Selection. The purpose of this TO is to accomplish the demolition of deactivated, unneeded facilities on an accelerated schedule as funding allows. The facilities are primarily non-radiological administrative and maintenance facilities. The end state desired under this TO is to accomplish the demolition of excess facilities to reduce liability and cost risks associated with continued facility surveillance and maintenance. This TO will be evaluated at least biennially. Excess facilities or groups of facilities identified by DOE will be evaluated as separate Subtasks under this TO.

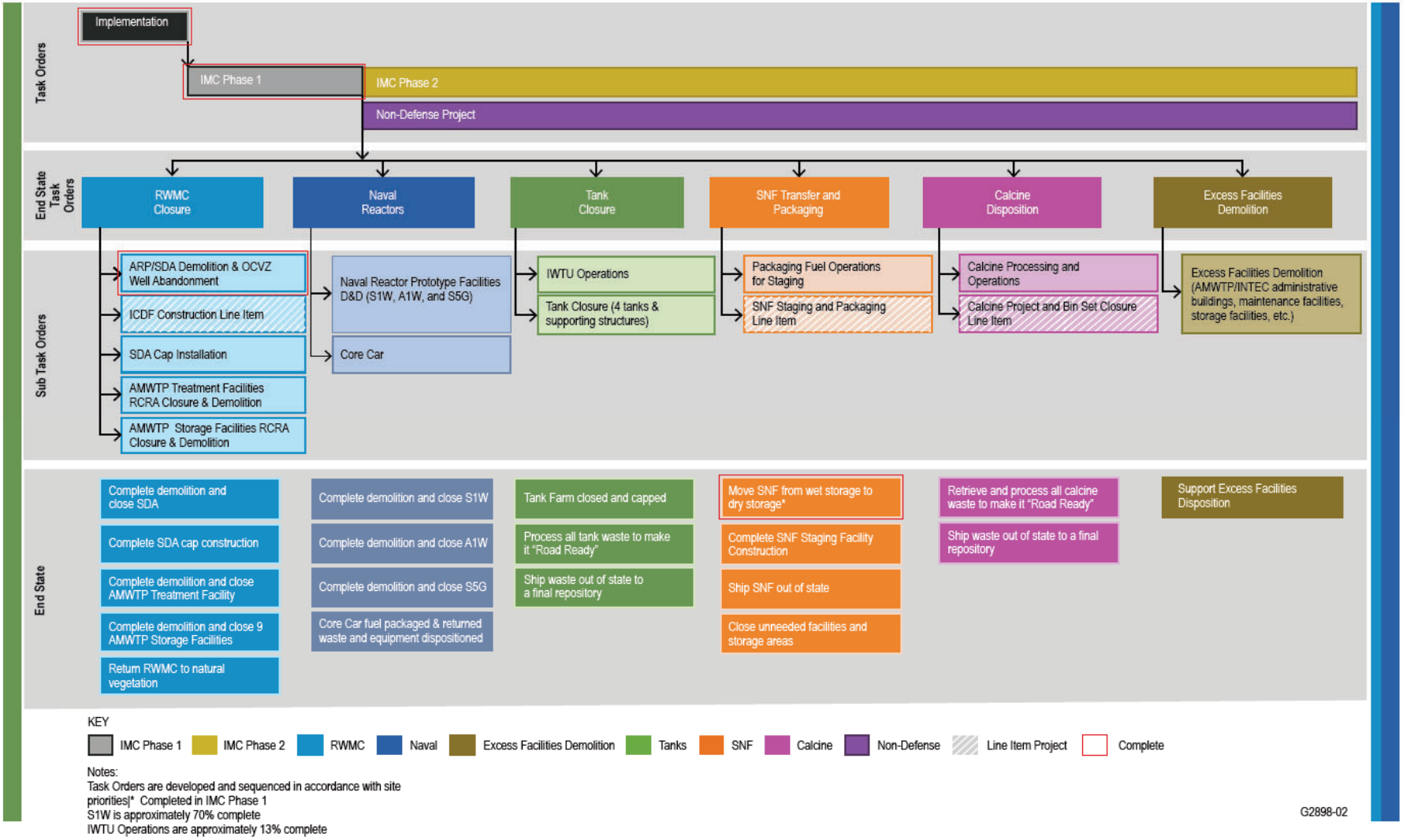
Scope and Period of Performance. The period of performance for this task is anticipated to be from FY27 through FY36.

Estimated Cost. Subtasks under this work scope and associated estimated costs will be developed as facilities are identified and the TOs are developed.

Contract Type. The contract type for this TO is anticipated to be an FFP contract due to the well-defined scope and fully quantified costs and risks for these demolition activities.

Completion Definition. The desired end state for this TO is the demolition of excess facilities as directed by DOE and as funding allows.

Exhibit 5, ICP Ten-Year End State Contract Flowchart.



C.3 Incentives

The IEC IMC Phase 2 TO (TO 3.2) contains a PEMP with objective and subjective fee criteria and performance-based incentives (PBIs) as required by DOE policy. Each TO released against the contract will include a stand-alone schedule that is initiated and managed in the PMB in accordance with the ICP End State contract requirements found in Section C.9.2.01 Program Management/Support/Administration. Specific incentives will be established to ensure that targeted scopes are completed, and subjective evaluation will be focused on three primary areas as individual TOs are developed. Anticipated incentives and metrics for each TO are shown in *Exhibit 6, Desired End States.*

Schedule: The primary objective of the Schedule Incentive is to encourage the Contractor to achieve schedules (Site Treatment plan reports, Idaho Department of Environmental Quality (IDEQ) notifications, DOE notifications, building closures, etc.) that meet or exceed timelines. In combination with the Cost Incentive, this is intended to fully achieve all scope requirements without causing detriment to other areas and avoid mission disruptions or schedule delays. The Contractor will be evaluated on its ability to meet or exceed schedule requirements and the overall timeliness and achievement progress of all facets of its work. The Contractor will be evaluated in all Schedule related areas, including but not limited to the following:

- The timeliness of completion of deliverables for all ICP programs including the timeliness of the completion of the contractual milestones.
- The timeliness of submittals to DOE, including Notifications of Contract Changed Conditions, and project documents such as Baseline Change Proposals and Program Change Requests, as described in the ICP contract to provide sufficient time for review, comment resolution, and revision in advance of document due dates or impacts to work. Submitted documents shall be of sufficient quality to not require significant re-work by DOE.

Cost: The primary objective of the Cost Incentive is to encourage the Contractor to achieve a final actual cost that is less than or equal to the total cost of the Task Order. In combination with the Schedule Incentive, this is intended to fully achieve all scope requirements without causing detriment to other areas and avoid mission disruptions or schedule delays. The Contractor will be evaluated in all Cost Control related areas, including but not limited to the following:

- Effective planning to control costs within the availability of funding, including alignment with the baseline and ownership of risk.
- Long-range planning to control costs in alignment with the baseline and ownership of risk.
- Management of all obligated funds to preclude deficiencies and include the appropriate clauses in all subcontracts to allow termination with minimal cost impacts to the project.
- Effectiveness in forecasting, managing, and controlling contract costs, including identification and notification to DOE of cost estimates exceeding available funding and implementing timely corrective actions.
- Overall, effective utilization of available appropriated funds.
- Developing and implementing initiatives which result in tangible savings to DOE (cost, schedule, or risk).
- The management of risks such that the costs expended to eliminate, mitigate, or minimize risks result in a substantial reduction in the rate at which risk costs are realized

- Cost tracking and reporting. This includes the accuracy of Estimate at Completion (EAC), accuracy of cost projections, effectiveness of baseline change management, and mitigation of cost overruns through Earned Value measurements.
- The overall and specific program and project status performance against the approved baseline, and the effectiveness of program and project reporting tools and systems.

Program Management: The primary objective of the ICP Program Management Incentive is to encourage the Contractor to continue to advance all ICP projects toward End States. The Contractor's program management support performance will be evaluated in areas including but not limited to the following:

- Effective program and project management.
- Effectiveness in coordinating with and applying lessons learned from other DOE/Commercial sites when implementing similar operations.
- Effectiveness of coordination with the Idaho National Laboratory Managing and Operating Contractor, the Naval Reactors Facility Contractor, and other Site Contractors to support and implement provided services and the reduction of costs to implement these services.
- Performance in interfacing with the community and other stakeholders in the execution of the ICP scope, including but not limited to follow-through on stakeholder commitments.

Performance Management Incentive (PMI): Per Section B.13 of the contract, PMI fee of $2M per fiscal year may be earned based upon outstanding results in Contractor performance, as determined by the Contracting Officer (CO), in the following areas: 1) Safety and Operational Performance; 2) Meeting regulatory or court ordered milestones; 3) Quality Assurance; 4) Maintaining the operability of facilities and other infrastructure; 5) Management of Contractor's team; 6) establishment, maintenance, and implementation of sound business systems; and 7) IDIQ Management.

.

Exhibit 6, Desired End States

TO Title and Scope	Notional TO Incentives and Metrics	Desired End State	Risks to achieving End State	Activities Required Beyond Contract Period to Achieve Final End State
Integration & Mission Continuity Phase 2 (TO3.2) – Programmatic support required for life of the contract and assure variable/high-risk work scopes not resolved during IMC Phase 1 are continued until risks have been mitigated	• Update biennially throughout contract POP • Metrics established in annual PEMP with PBIs (Performance Based Incentives) • Resolve high-risk scopes to develop TOs • Complete WIPP certification • Ship remaining CH TRU Waste Inventory to WIPP	• Uninterrupted programmatic support • High-risk scopes resolved and transferred to End State TOs	• WIPP certification and availability • Availability of WIPP containers/overpacks (supply chain) • Inadequate funding to support waste disposition, infrastructure upgrades, etc.	• May be extended if the contract is extended or become the responsibility of the new contractor • Not an End State TO
RWMC Closure (TO4) – Completion of activities needed to achieve RWMC Closure	• ARP/SDA Demolition & OCVZ Well Abandonment • ICDF Construction • SDA Cap Installation with 1st load of dirt to SDA, 25%, 50%, 75% dirt hauled; cap complete, report submitted • RCRA Closure/Demolition of AMWTP Treatment Facility • RCRA Closure/Demolition of 9 AMWTP Storage Facilities	• Closure of the RWMC • RWMC returned to natural vegetation	• Dependent upon maintaining commercial treatment capabilities to address LLW/MLLW, specifically organic waste • Dependent upon WIPP certification and availability • Availability of WIPP containers/overpacks (supply chain) • Dependent on ICDF expansion to receive demolition waste • Inadequate funding	• RWMC Closure will be completed within the extended 15-year contract period
Naval Reactors (TO5) – Removal and disposition of aging Naval facilities	• Deactivation of S1W & A1W • Demolition of S1W & A1W • Commence D&D Planning for S5G • Complete design, testing, and processing of Core Car	• Complete demolition of specified NRF facilities • Complete processing of Core Car	• No on-site current capacity for disposal of large reactor components - ICDF expansion required	• The S1W, A1W, and S5G facilities will be dispositioned within the 10-year contract period • The Core Car will be processed within the 10-year contract period
Non-Defense Project (TO6.1) – Manage SNF from Ft. St. Vrain and on-site NRC licensed facilities	• Manage Ft. St. Vrain & on-site NRC facilities fuels for future disposal	• Provide NRC licensed fuel facilities support to fuels management as directed	• Maintenance of aging facilities	• Not an End State TO
Tank Closure (TO7) – Completion of activities needed to achieve Tank Closure	• IWTU Operations • Removal & treatment of 900K gallons of SBW contained in tanks • RCRA closure and stabilizing the emptied tanks under DOE O 435.1 • Placing an interim cap over the tank farm	• Tanks emptied of waste and cleaned • Ancillary liquid waste treated (Process Equipment Waste Evaporator [PEWE]) • Tank Farm Closed • Interim cap placed over Tank Farm • Determine final treatment Path for SBW treated product	• The IWTU must remain reliably operational to support interim SBW treatment • No identified final treatment process for SBW	• Tank Closure will be completed within the 10-year contract period • SBW treatment process must be identified • SBW must be treated, packaged, and "Road Ready" for transport to disposal
SNF Transfer & Packaging – Activities required to prepare and ready SNF for shipment	• Packaging Fuel Operations for Staging • Begin retrieval & packaging demonstration project for SNF from dry storage	• Complete the facility mod and SNF packaging demonstration (CPP-603) • Complete design for SNF Interim Staging and Packaging capability	• Critical activities for the facility modification and SNF packaging demonstration support are still in development • No out of state repository for SNF disposal	• Develop the SNF Interim Staging and Packaging capability • Complete packaging and preparation of fuel • Ship SNF out of state • Close unneeded facilities and storage areas
Calcine Disposition – Activities to support retrieval, processing, and disposition of Calcine waste	• Begin Calcine processing & operations (transfer Calcine from Bin 1 to Bin 6) • First canister produced, 50th, 100th, processing complete • Empty each bin set, close/grout bins and interim cap complete	• Complete Calcine Demonstration Project (Retrieval Development/Mock-up) • Complete the evaluation to determine path for Calcine treatment • Design and construct Calcine treatment process	• The Calcine Demonstration Project must be completed successfully to remove uncertainty in completing the Calcine Disposition End State • No identified path for disposal of treated calcine	• Retrieve and process all calcine waste to make it "Road Ready" • Ship treated Calcine waste out of state to final disposition • Complete Bin Set Closure (RCRA closure and interim cap)
Excess Facilities Demolition – Removal of excess facilities as funding allows as directed by DOE to reduce risk and costs	• Identify candidate excess facilities & prioritize according to risk & integration with ongoing operations (AMWTP/INTEC admin. bldgs., maintenance facilities, storage facilities, etc.)	• Demolish priority excess facilities • Support RWMC closure • Reduce excess building footprint at INTEC	• Need to minimize impact on higher priority projects and ongoing operations in other areas • Dependent on available funding and resources	• Complete demolition of identified non-radiological excess facilities

C.4 Workforce

This Plan maximizes the retention and use of a flexible and highly skilled workforce that can be reassigned from one task order to another as work scopes ebb and flow. For example, D&D workers can be shifted between RWMC, Naval Reactors, and Excess Facilities as D&D activities shift on these active TOs. This presumes full funding availability for these activities to run somewhat concurrently/sequentially. Task Orders are notionally laid out to optimize workforce efficiency, maximize use of the trained and qualified workforce, minimize down-time between TOs, and assure availability of qualified personnel to meet End States.

The workforce is further optimized through:

- **Planning:** Funding and timing of TO implementation. Delays in funding and timing of implementation will increase costs significantly as End States are pushed to the outyears for completion.
- **Training:** Workers will have opportunities to learn new skills so they can be leveraged as multi-disciplinary assets (consistent with the collective bargaining agreement, as applicable) and on multiple task orders as the work shifts around the ICP facilities.
- **Recognition for Achievements:** When workers complete tasks safely and compliantly, achieving the desired end states for DOE as required by the task, they will be recognized for their achievements.
- **Transition Support:** As the achievement of end states at the ICP occurs and skill set demands change, IEC will work to provide advanced planning and preparation for initiation of tasks to allow placement of resources on other ICP activities, or to provide opportunity for the workforce in the ongoing missions, or new missions that are part of the future of the Idaho site.
- **Union Collaboration:** IEC works strategically and collaboratively with the Bargaining Units to ensure that end states are achieved in a safe, effective, and timely manner without significant labor impacts.

C.5 Integration

The IMC TO (TO3) is the key mechanism for ensuring a fully integrated approach to End State TO development and implementation over the life of the contract. This allows the planning of TO scopes to achieve end states, while balancing workforce and resource allocations against funding or scope availability. IMC also allows flexibility to move resources between TOs as work is completed or in response to unanticipated situations that require resource reallocation.

C.6 Internal Controls

IEC brings a systematic, standardized approach to managing, implementing, and executing task orders that is of value to the government and contractor alike, driving accountability and engagement by all parties to define and reach agreement on the desired end state objectives.

The TOs will be prepared under separate proposals designed to allow for segregated tracking and charging by TO (separate WBS structure and separate charge codes to allow tracking of individual work scope under each task independently). In addition, the WBS is set up with links between individual TOs to support life-cycle tracking.

D. End State

*Exhibit 6, Desired End State**s*** shows the end states desired for each End State TO as well as the anticipated status of each TO at the end of the 15-year contract period.

E. Partnering

The DOE ICP and IEC have established a routine collaborative and iterative process wherein each party has been present and engaged in the identification of the Department's strategic imperatives. The foregoing strategy, including the defined End States, was developed and agreed to between the parties.

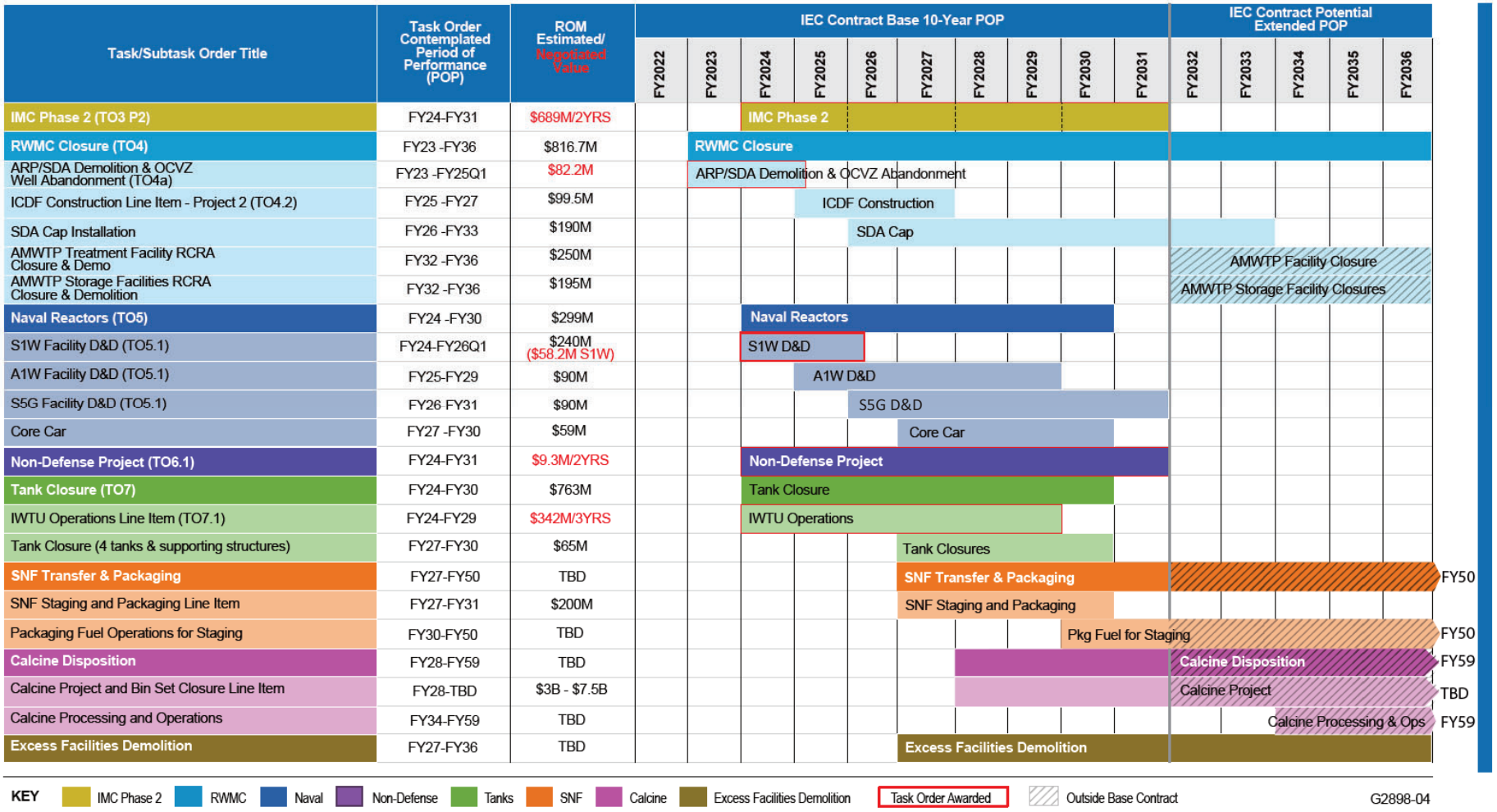
The parties also recognize the need for continuing a defined process for strategic risk management that sets priorities and informs TO development in a way that reduces risk, reduces EM liabilities, and supports End State achievement in a tactical manner that considers resource availability, funding, regulatory, and budget limitations.

F. Schedule

The contemplated schedule for TO development and deployment is provided in *Exhibit 7, Notional Task Order Schedule*.

Exhibit 7, Notional Task Order Schedule

Task/Subtask Order Title	Task Order Contemplated Period of Performance (POP)	ROM Estimated/ Negotiated Value
IMC Phase 2 (TO3 P2)	FY24-FY31	$689M/2YRS
RWMC Closure (TO4)	FY23 -FY36	$816.7M
ARP/SDA Demolition & OCVZ Well Abandonment (TO4a)	FY23 -FY25Q1	$82.2M
ICDF Construction Line Item - Project 2 (TO4.2)	FY25 -FY27	$99.5M
SDA Cap Installation	FY26 -FY33	$190M
AMWTP Treatment Facility RCRA Closure & Demo	FY32 -FY36	$250M
AMWTP Storage Facilities RCRA Closure & Demolition	FY32 -FY36	$195M
Naval Reactors (TO5)	FY24 -FY30	$299M
S1W Facility D&D (TO5.1)	FY24-FY26Q1	$240M ($58.2M S1W)
A1W Facility D&D (TO5.1)	FY25-FY29	$90M
S5G Facility D&D (TO5.1)	FY26 FY31	$90M
Core Car	FY27 -FY30	$59M
Non-Defense Project (TO6.1)	FY24-FY31	$9.3M/2YRS
Tank Closure (TO7)	FY24-FY30	$763M
IWTU Operations Line Item (TO7.1)	FY24-FY29	$342M/3YRS
Tank Closure (4 tanks & supporting structures)	FY27-FY30	$65M
SNF Transfer & Packaging	FY27-FY50	TBD
SNF Staging and Packaging Line Item	FY27-FY31	$200M
Packaging Fuel Operations for Staging	FY30-FY50	TBD
Calcine Disposition	FY28-FY59	TBD
Calcine Project and Bin Set Closure Line Item	FY28-TBD	$3B - $7.5B
Calcine Processing and Operations	FY34-FY59	TBD
Excess Facilities Demolition	FY27-FY36	TBD



G. Risk and Liability

DOE-EM employs a risk management plan for the initiation, execution, monitoring, and close-out of risks throughout the life cycle of the project. As part of the execution to this plan, the proposed End State task orders will achieve significant risk and liability reductions in each key area of site cleanup and will demonstrate significant progress toward achieving DOE end state goals and objectives, as well as stated goals for implementation of the ESCM to influence a completion mindset. Sections G.1 through G.5 provide discussions of the major risks and liabilities impacting contract completion.

G.1 Funding Risk/Liability

Funding for completion of enabling projects is critical to maintaining the qualified workforce and achieving the End States discussed in this Plan. Any lapse or delays in funding will drive significant cost, liability, and schedule increases in the future.

- The greatest single risk to achieving the End States in this Plan and completing the ICP Contract scope is funding. The Plan for achieving End States is dependent on adequate, timely, and predictable funding levels shown in the Executive Summary and detailed in *Exhibit 4, Notional End State Task Order Contract Strategy.* Adequate and predictable funding must be available to support critical End-State accomplishments and to maintain the qualified workforce and aging infrastructure to support these work activities. Specifically, adequate funding is required to support TO3 waste management activities and infrastructure upgrades concurrent with completion of the SDA Cap Installation capital asset project, Tank Closure, and the AICDF-Project 1 and Project 2, and to provide ongoing support of the SNF Staging and Packaging and Calcine Construction Project Line Items to accomplish desired End States, as discussed below.

- Predictable, timely funding is key to assuring stability of the workforce. For example, downturns in the workforce would significantly impact ongoing work at the NRF and drive wholesale change out of less senior staff at the NRF with more senior staff at other work locations as work is completed. Such fluctuations would impact schedule and costs for demolition of the Navy prototype reactors due to retraining and familiarization of a new work force to this critical and high-risk work scope. RWMC Closure is dependent upon continuous waste disposition in an expeditious and efficient manner.
- Infrastructure upgrades are required to support the critical needs at INTEC and RWMC to assure that ongoing missions are adequately supported and that safety and compliance are maintained. Many of the critical systems (ventilation, fire water, potable water, and electrical supply) are over 50 years old, with several critical systems, primarily electrical, nearing 70 plus years of age. Given that all activities are being prolonged as a result of inadequate funding, these facilities need to be addressed to ensure their capacity to continue operations for decades to come.
- Completion of the ICDF expansion is critical to IEC's ability to dispose of waste and large components resulting from RWMC Closure, Naval Reactors, and Excess Facilities D&D activities.
- The SDA Cap is planned to be completed in FY33. Initial preparation activities have begun including risk mitigation work to address storm water runoff and roads issues. Document preparation is ongoing to support the planned FY26 start of cap construction.
- The SNF Staging and Packaging Capability projects are needed to ensure sufficient capacity for storage of packaged SNF while awaiting shipment to a yet-to-be-determined repository and meet regulatory commitments, as well as assuring critical national missions for energy development are maintained at the INL and other national laboratory and university testing and development programs.

- The Calcine Disposition Project is needed to support timely testing and development of systems and site modifications to support compliant Calcine processing and packaging to make it "road ready" for ultimate transport to a yet-to-be-determined repository and meet regulatory commitments. Funding is essential to provide reliable, long-term support to develop capabilities to both retrieve and treat this waste and assure stakeholders that the calcine is safely prepared for transport and disposal.

The ICP Mission and End State objectives are enabling activities that facilitate the increased capabilities of the INL to meet national objectives in clean energy research and improved technologies for increasingly reliable and cost-effective energy systems. Failure of the ICP to meet regulatory commitments to the State of Idaho creates significant risk to not only meeting End State objectives of the ICP, but also increases costs over the long-term, and jeopardizes the continuing mission of the INL. Infrastructure upgrades, waste management, and escalation and rate increases represent the greatest threats to successful TO completion. These are addressed in the following sections.

If significant delays in TO completion occur, the State of Idaho may choose to prohibit the INL from continuing its mission which could significantly impact fuels and energy research.

G.2 INTEC Infrastructure

As indicated in *Section G.1 Funding Risk/Liability*, a critical component of the long-term mission is infrastructure. The INTEC is the necessary component of the long-term mission objectives for the ICP, primarily in the area of fuels management and calcine processing and disposition. Currently, many of the systems critical to safe and compliant operations of the INTEC are well beyond their design life and represent a significant threat to mission objectives over the short and long term.

Many of the critical systems (ventilation, fire water, potable water, and electrical supply) are over 50 years old, with several critical systems, primarily electrical, nearing 70 plus years of age. Current funding levels require the majority of funds to be focused on mission objectives for meeting regulatory commitments, which, in turn, causes infrastructure projects to be delayed and "work arounds" utilized to keep critical systems online to support the mission. However, this is becoming an increasingly untenable situation given that many of the parts and components necessary to accomplish these "work arounds" are obsolete and no longer supported by manufacturers. An example is the main INTEC substation, nearly 73 years old, with no parts support on a critical system that is the only source of power to the IWTU, fuels storage, and calcine storage and processing. Correcting a critical failure, vice planned recapitalization, would impact mission objectives for a significant time period, increasing associated costs. And the failure will not only impact cleanup activities but will impact INL facilities as well (i.e., Advanced Test Reactor). Further, aging facilities necessary for housing personnel in a high desert climate are beyond their life expectancy and are substandard for the continuing missions.

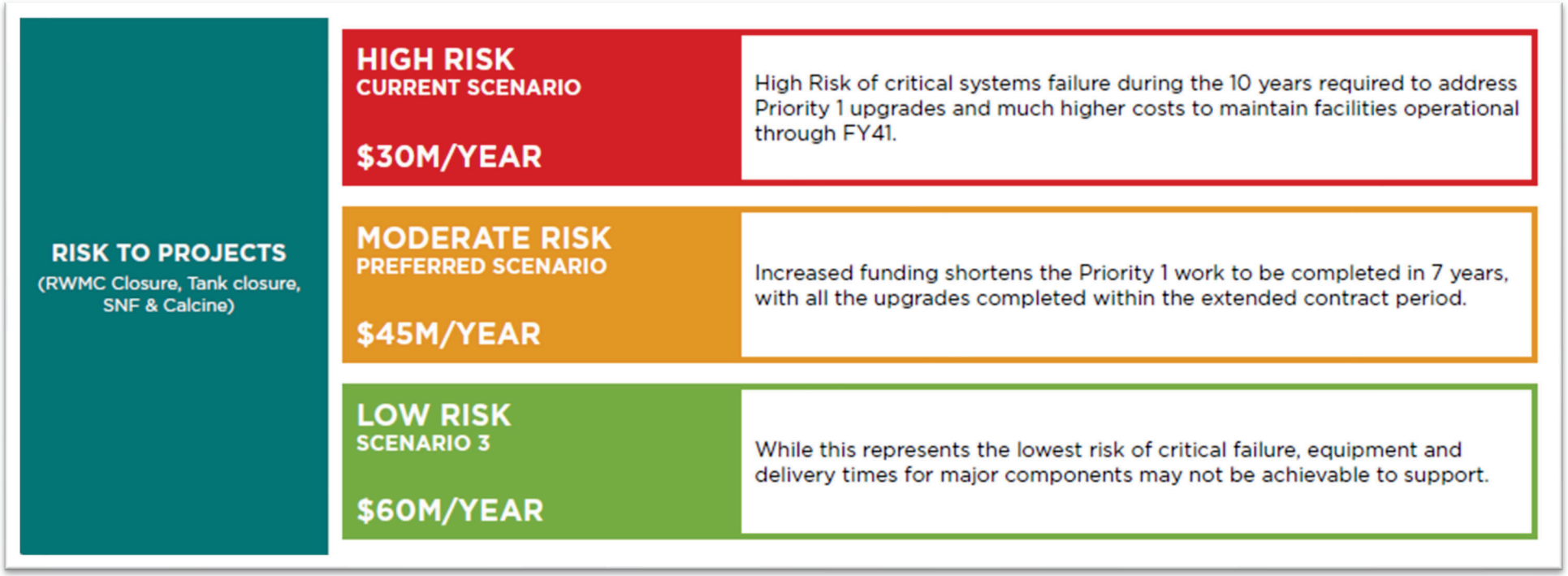
The ICP has commenced a detailed plan for infrastructure upgrades over the last several years and is finalizing these plans in FY25. Currently, the priority focus is on those critical systems noted above, combining upgrades to information technology systems and cyber security needs with electrical needs. The plan must be timed and funded correctly to ensure minimized conflict between systems, as well as assuring adequate funding plans that are sustainable, address the most risk to mission continuance, and remain affordable to support ongoing critical mission work.

ICP expects that without an adequate funding profile, many of the systems will reach failure within the next five to ten years with no ability to repair lengthy, costly replacement will be the only option. This situation,

currently managed on a “just in time” model above the base funding level that supports the base maintenance program, due to limited funding, will not adequately support sustainable and reliable mission performance into the future and will result in mission delays and increased costs. We have completed an analysis of the infrastructure upgrades that could be accomplished based on funding of $30M, $45M, or $60M each year. The results of this analysis are shown in *Exhibit 8, Impacts of Infrastructure Funding***.** The Analysis focusses on completing the priority 1 upgrades to electrical, fire water, potable water, and ventilation systems that are critical to maintaining facilities operable to support continued operations at INTEC/IWTU and RWMC, as well as future operations to support the SNF and Calcine projects.

The predictable funding profile for infrastructure maintenance/upgrades under this TYP currently assumes $45M/year (escalated). This level of funding is optimal to ensure timely completion of priority 1 upgrades in FY31, with the balance of priority 2 and 3 upgrades in FY36, and is adequate to plan, prepare, and execute infrastructure improvements that minimize mission impact and assure safe, efficient, and compliant operations. This predictable funding is also critical to address increasing pressures in escalation and inflation for goods, commodities, and services. Current delivery times and costs associated with critical system hardware such as transformers require delivery planning of up to 24 months with significant downpayment (50% or more) to guarantee components and/or equipment will be manufactured and delivered. The 24-month advance downpayment poses a significant planning concern under the already-challenging annual appropriation process.

Exhibit 8, Impacts of Infrastructure Funding



G.3 Waste Management Program

IEC is responsible for managing legacy wastes stored in RWMC facilities to disposition to prepare for RWMC Closure (TO4). These wastes are managed under the IMC Phase 2 TO (TO 3.2). Each of the wastes stored at RWMC represent unique challenges that pose a risk to both the cost and schedule to disposition the wastes and complete RWMC Closure. The three largest waste populations have been analyzed for the potential impact on waste disposition costs and the RWMC Closure schedule and to identify opportunities to complete the disposition while minimizing cost and schedule impacts. *Exhibit 9, Legacy Waste Impacting RWMC Closure* shows the wastes that have been evaluated and provides a brief discussion on the waste composition.

Exhibit 9, Legacy wastes impacting RWMC Closure	
Waste	**Discussion**
Contact-Handled Transuranic (CH-TRU) Waste	This waste stream comprises 5,200 BN-510, 100-gallon puck drums, currently slated for overpacking in Standard Waste Boxes (SWBs) for transport in TRUPACT-II and HalfPACT containers for WIPP disposal.
Indeterminate CH-TRU Waste	This waste includes 2,700 55-gal drums of waste originally certified for WIPP disposal; however, following the WIPP occurrence in 2014 WIPP rescinded the certification due to concerns over low levels of nitrates in the waste stream driving evaluation of other options for treatment and disposal.
MLLW	This waste includes 2,300 55-gal drums of MLLW that must be thermally processed to meet Land Disposal Restrictions for hazardous constituents.

G.3.1 BN-510 CH-TRU Waste

There are 5,200 BN-510, 100-gallon puck drums being stored withing the AMWTP storage facilities that are greater than 5 years beyond their packaging date. IEC encountered two issues in FY22 regarding the failure of 100-gallon puck drums that were greater than 5 years old. Investigations into these events determined that drums packaged greater than 5 years earlier are at risk of failure. The current disposition path for these drums is to overpack them in Standard Waste Boxes (SWBs) for transport to WIPP for disposal. The SWB overpacks are used to ensure that any deteriorated drums are contained during transport, acceptance and disposal. The waste must be removed from RWMC by FY32 to permit RCRA Closure and Demolition of the AMWTP Treatment and Storage facilities and complete the RWMC Closure End State TO (TO4). The cost of SWBs and significant delays in delivery of the quantities needed do not support the RWMC Closure schedule. To mitigate this risk IEC has completed an evaluation of this waste stream under four scenarios shown in *Exhibit 10, Options for Dispositioning BN-510 CH TRU*

Exhibit 10, Options for Dispositioning BN-510 CH TRU Waste	
Scenario	**Description**
Scenario 1	Overpack all BN-510 drums in SWBs
Scenario 2	Determine the drum integrity of the BN-510 drums using Ultrasonic Testing and overpack non-compliant drums in SWBs
Scenario 3	Determine the drum integrity of the BN-510 drums using Ultrasonic Testing and overpack non-compliant drums in soft-sided DOT compliant bags, aka Supersaks
Scenario 4	Determine the drum integrity of the BN-510 drums using Ultrasonic Testing and repack waste from non-compliant drums in new compliant drums through the Treatment Facility (TF)

G.3.2 Indeterminate CH-TRU Waste

ICP has several current indeterminate waste streams, of which the most significant in potential impact to RWMC closure is the nitrate waste stream. This waste includes 2,700 55-gal drums of waste originally certified for WIPP disposal; however, following the WIPP occurrence in 2014 WIPP rescinded the certification due to concerns over very low levels of nitrates in the waste stream. Since the certification was rescinded, IEC has had to evaluate the cost and schedule impacts of alternative scenarios listed in *Exhibit 11, Options for Dispositioning Indeterminate Waste* for waste disposition.

Exhibit 11, Options for Dispositioning Indeterminate Waste	
Scenario	**Description**
Scenario 1	Recertify waste for WIPP disposal
Scenario 2	Process and repackage for commercial thermal treatment and disposal at NNSS
Scenario 3	Solidify for treatment/disposal

G.3.3 Mixed Low-Level Waste

This waste stream comprises 2,300 55-gal. drums of greater than Class A, organic, MLLW that dropped out of the TRU category during previous TRU waste retrieval and repackaging activities. For many years this waste was load managed to WIPP for disposal. In ~2016, WIPP determined that this waste would no longer be accepted at the facility for disposal as an individual drum might contain <100 nCi/g transuranic isotopes, although it was previously managed in a load that averaged >100 nCi/g transuranics. Due to the loss of the WIPP load management option and given the organics in the waste the only option for disposition is thermal treatment to meet land disposal restrictions for shallow land disposal at NNSS. The only viable thermal capability is available through the VTD at the PermaFix commercial facility. ICP has evaluated three scenarios listed in *Exhibit 12, Options for Dispositioning* MLLW for treatment and disposal of this waste.

Exhibit 12, Options for Dispositioning MLLW	
Scenario	**Description**
Scenario 1	Commercial thermal treatment and disposal at NNSS
Scenario 2	Thermal treatment at IEC
Scenario 3	Load manage to WIPP

Exhibit 13, RWMC Closure, Cost and Schedule Evaluation

G.4 Escalation and Rate Increases

Over the last few years, the ICP has been closely monitoring impacts and pressure to funding from increasing escalation and rate increase for goods and services. In FY24 the realized increase against the planned rate escalation of around 4%, has been closer to 9%. This includes mandatory services from the INL site landlord and Government Services Agreement (GSA) fleet with increases to services for transportation and vehicles of around 15%, a 22% increase in power rates in 2024, and an expected 8% increase in power rates in 2025. In either the flat or predictable funding cases, inadequate accounting for escalation as part of budget formulations begins to erode buying power for budgeting purposes and eventually does not support the mission as increasing rates eat into appropriated funds.

The ICP and INL have looked at several options in this scenario, including significant changes to pension overlay and evaluating the need for maintaining certain services versus adjusting to a "buy as needed" approach via the local economy.

The ICP budget plans shown in *Exhibit 1, Notional Funding Profile for Predictable Funding* account for the pressures being encountered in rate management to ensure that mission needs are maintained safely and compliantly.

G.5 Fines and Penalties

The ICP regulatory milestones are contained in the 1995 Idaho Settlement Agreement (ISA), 2019 Supplemental Agreement (SA), the 2008 Agreement to Implement (AI), the Site Treatment Plan (STP), the Colorado Settlement Agreement, and the Notice of Noncompliance Consent Order (NNCO). Noncompliance with these agreements could result in fines and penalties.

H. Metrics

Metrics for the IMC TO are established in the PEMP with separate metrics identified as TOs are developed. FY24 completed metrics are shown in *Exhibit 3, FY2024 Metrics Demonstrating Successful TO Performance* with anticipated metrics for each TO shown in *Exhibit 6, Desired End States.*