

Department of the Treasury
Bureau of Engraving and
Printing
FY 2025
Capital Investment Plan

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Note to Reviewers: Consistent with the corresponding Summary of Capital Investments table, the columns included in the investment tables below are defined as:

- **FY 2023 Actuals** -Total actual obligations
- **FY 2024 Estimated Obligations**- Anticipated obligations from all budgetary resources (e.g., balances from prior years, user fees, and FY 2023 Operating levels).
- **FY 2025 Estimated Obligations** - Anticipated obligations from all budgetary resources (e.g., balances from prior years, user fees, and FY 2025 President’s budget).

Major IT Investments

Manufacturing Execution System (MES) Support

Description:

Support Services to upgrade BEPs IT infrastructure and installation of new or upgraded software to support BEP's core manufacturing and support business processes with an integrated database.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	12.69	10.84	11.65	0.81	7.47%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	13.52	16.26	17.48	1.22	7.50%
Total Obligations	26.21	27.10	29.13	2.03	7.49%

Purpose, Accomplishments, Future Objectives:

This initiative continued to increase the amount of source data extracted from manufacturing equipment, while improving the functionality of applications through further enhancements. During the third year of this investment, the Bureau of Engraving and Printing (BEP) achieved the following in 2023:

- Continued IT integration of new automated presses (e.g., Non-sequential Large Examining and Printing Equipment (NS-LEPE),
- Incorporated Single Note Inspection (SNI) / Inspection Finishing Systems (IFS) and Rotary Press into the MES solution, including establishing bi-directional data feeds for NS-LEPE accountability data;
- Deployed predictive analytics models for supply chain delivery forecasting and developed proof-of-concept use cases to leverage Generative Artificial Intelligence (GenAI);
- Matured Artificial Intelligence (AI) governance and established an innovation lab to test new technologies;
- Upgraded the Enterprise Service Bus, which simplifies integration between applications, reducing the number of point-to-point connections and addressing security vulnerabilities;

- Enhanced the automated Budget formulation tool to further reduce manual data entry and track budget approvals;
- Deployed the next generation MES architectures to improve system interoperability and performance;
- Continued to enhance data and analytics self-service capabilities that will improve end-user data literacy and improve self-generated reporting;
- Built office-level profiles to streamline access management capabilities and provide a better user experience; and
- Significantly expanded the self-service knowledge management portal that enables end-users to train or retrain on MES applications at their own time and pace.

This investment will continue in 2024 and 2025 to improve data consistency, transparency, and accountability by providing BEP end-users with enhanced functionality. Some of the objectives of this investment include:

- Completing the build out of standard user profiles in the Identify Management System, accelerating user access to applications required for the jobs;
- Upgrading the Data Lake and migrating it to the cloud, which will expand capacity and reduce lifecycle costs;
- Deploying a Mobile Supply Chain Application to automate inbound and outbound logistics and shipping and receiving;
- Planning and designing an enterprise data warehouse to provide a one stop shop for data analysis and reporting;
- Upgrading the Maximo Enterprise Adapter to enable seamless integration between the Maximo enterprise asset management system and the Oracle MES applications, resulting in real-time data accuracy, improved decision-making, and operational efficiency; and
- Implementing the BEP cloud strategic initiative to migrate on premise legacy applications to cloud-native applications, simplifying IT infrastructure management, eliminating over provisioning, and increasing development and deployment speed to deliver solutions to customers faster.

Major Non-IT Investments

Currency Production

Description:

Currency Production is a multi-year refresh effort to retool its manufacturing processes with state-of-the-art intaglio printing presses, electronic inspection systems, and finishing equipment. To ensure that BEP will meet the annual currency order, the Federal Reserve Bank (FRB) and BEP developed short-, medium-, and long-term strategic equipment replacement plans for the U.S. Currency Program.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	54.41	1,010.03	34.90	-975.13	-96.54%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	54.41	1,010.03	34.90	-975.13	-96.54%

Purpose, Accomplishments, Future Objectives:

Currency Production is a multi-year refresh effort to retool its manufacturing processes with state-of-the-art intaglio printing presses, electronic inspection systems, and finishing equipment. To ensure BEP meets the annual currency order, the FRB and BEP developed short-, medium-, and long-term strategic equipment replacement plans for the U.S. Currency Program. Successful implementation of advanced technology improves productivity, reduces environmental impact, and enhances counterfeit deterrence of U.S. currency notes. The performance of this investment will be evaluated through the following two measures:

1. Comparison of productivity of new equipment with existing equipment.
2. Comparison of spoilage rates of new equipment with rates of existing equipment.

FY 2024 major projects include predominantly multi-year retooling projects as follows:

- Single Note Inspection (SNI) Finishing System:
 - Continuing to upgrade and complete automation of the \$100 finishing line to integrate SNI technology. The capability to inspect single notes provides a significant improvement over BEP’s traditional sheet inspection process.
- Hot Foil Presses
 - Hot Foil Press machines to support the \$50 and \$100 Catalyst Design to add features to the notes. These machines are for the Western Currency Facility (WCF) and the DC Replacement Facility (DCRF).
- Non-Sequential Large Examining and Printing Equipment (NS-LEPE)
 - The NS-LEPE systems to replace the Currency Overprinting Processing Equipment and Packaging COPE-PAK and legacy LEPE systems. The NS-LEPEs are capable of manufacturing larger sheet sizes allowing 50 versus 32 banknotes on each sheet and provides additional production capability. These machines are state-of-the-art, specifically designed for BEP. They combine multiple currency production processes at once: full sheet examination, letterpress printing functions, product verification, and cutting and packaging currency.
- Inspection Finishing System (IFS)
 - IFS / SNI Finishing System ensures only the highest quality sheets move to the numbering operation. A state-of-the-art computer system integrated with cameras and sophisticated bespoke software thoroughly examines sheets. It also sorts finished

numbered notes from the defective Off-line Currency Inspection System (OCIS) sheets, reclaiming good notes from destruction.

- Rotary Screen Presses
 - Rotary Screen Presses support the introduction of the \$10 Catalyst Design, with options for additional presses for the new DCRF and WCF.
- New Offset Presses
 - Replacement Offset Presses for the utilization of the latest technology to reduce operational costs and improve efficiencies. The new presses are expected to help achieve overall excellence in production, personnel management, processes, and technology.
- New Intaglio Presses
 - Replacement Intaglio Presses improve efficiency by incorporating the latest printing, electronics, and inspection technology into the production process at the new BEP facility. The new presses will be integrated into an overall facility design that is expected to maximize efficiency, reduce environmental impact, and take advantage of technological efficiencies and automation resulting in reduced overall costs.
- LEPE Upgrades
 - Represents upgrades to the 3 LEPE systems (2 WCF and 1 DCF) to replace obsolete components, improve performance and reliability, and to incorporate improvements from the NS-LEPE systems.

Major accomplishments include continued success in moving toward the goal of realizing savings by purchasing major multi-year retooling equipment in larger quantities.

FY 2025 major projects include:

- Cash-Pak Oven/Wrapper Replacement
 - To update and replace the existing cash-pak conveyor oven due to obsolescence. The proposed cash-pak conveyor oven will heat-shrink the surrounding plastic of the cash-pak with the goal of minimizing quality defects and downtime, while maintaining or improving current throughput.
- Currency Inspection System (CIS) Upgrades (Feeder and IR Inspection)
 - Represents necessary upgrades to CIS to allow evaluation of Catalyst banknotes. Adding these upgrades will enable CIS to be the benchmark to compare against for all new and existing inspection platforms. This benchmark is critical to the further development of in-line inspection.
- Physical Vapor Deposition (PVD) Chrome System
 - This requirement replaces the existing traditional chrome plating system with the PVD Chrome which is environmentally friendly and provides better durability.

DC Replacement Facility

Description:

Construction of a new more efficient currency production facility to replace aging infrastructure at the BEP's current Washington, D.C. facility to achieve increased efficiencies and reduced annual operating costs.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	25.95	1,525.21	63.93	-1,461.28	-95.81%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	25.95	1,525.21	63.93	-1,461.28	-95.81%

Purpose, Accomplishments, Future Objectives:

Construction of a new more efficient currency production facility to replace the aging infrastructure at the BEP's current Washington, D.C. facility will achieve increased efficiencies and reduced annual operating costs. The existing BEP currency production facility in Washington, D.C. (DCF) is comprised of two multi-level, multi-wing buildings - the Main and Annex buildings. Both buildings, constructed in the early 1900's, are costly to maintain and are obsolete in relation to modernized currency printing technology. The current building layout results in increased time, cost and spoilage for delivery, transport, and storage of raw materials and inventories of currency products throughout the manufacturing process. The aging infrastructure exposes the DCF to vulnerabilities related to potential failures and inefficiencies of facility systems, such as HVAC, electrical, and plumbing; code compliance; and physical and product security.

BEP completed a suitability assessment of the site with the support from the U.S. Army Corps of Engineers. According to a GAO report¹, a replacement facility will save an estimated \$568 million over 10 years, as compared to the cost of the renovation of the existing facility. In addition, BEP will reduce its annual operating costs by at least \$38 million through production, material handling, and other operational/support efficiencies.

In FY 2022, BEP obligated \$11.8 million in support of the early site development construction. In FY 2023, BEP obligated \$26 million for demolition contract and other site development. The final cost estimate for the DC Replacement Facility was approved in December 2023 based on United States Army Corps of Engineers (USACE) market research. In FY 2024, following the completion of that estimate, the planned obligation of \$1.53 billion for the next phase of the replacement facility project moved forward to support major construction. In FY 2025, an anticipated obligation of \$63.9 million will continue to support the completion of the new facility.

¹ U.S. Government Accountability Office (2018), Bureau of Engraving and Printing Options for and Costs of a Future Currency Production Facility. [Data file] Available from <https://www.gao.gov/assets/gao-18-338.pdf>.

Facilities Support

Description:

BEP maintains the District of Columbia Facility (DCF) and the Western Currency Facility (WCF). BEP occupies/uses these facilities (owned by the Treasury Department) and is responsible for maintenance/repairs of all buildings and land improvements.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	24.05	53.46	23.77	-29.69	-55.54%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	24.05	53.46	23.77	-29.69	-55.54%

Purpose, Accomplishments, Future Objectives:

BEP maintains the DCF and the WCF and is responsible for maintenance and repairs of all buildings and land improvements, while the Treasury Department maintains ownership of these facilities. The facilities house manufacturing equipment, manufacturing and information technologies, equipment, and human resources used to support the manufacture of United States Currency and other secure printing documents.

In FY 2024, major facility projects for DCF include the following:

- The Office of Currency Manufacturing (OCM) Renovation and Work-In-Progress (WIP) Storage, which provides more efficient, improved process flows and additional space for WIP storage;
- B-Wing Roof Replacement, which will replace the roof of a space used for currency storage and has exceeded its useful life; and
- Switchgear replacement for the main building, since the gears are 35 years old and need immediate replacement.

In FY 2024, major facility projects for WCF include the following:

- Air Handler Refurbishment and Central Plant Switchgear replacement for switchgear that has exceeded its lifecycle;
- New Federal Reserve Vault Automated Racking System;
- Pre-Wipe Tank Replacement; and
- Electrical Substations and Safety Upgrades.

In FY 2025, major projects include the following:

- Replacement of Air Handling Units in DCF's main and annex buildings.
- Power Upgrade for WCF's Data Centers for current and future growth;
- WCF's Solar Photovoltaic Farm; and
- Generator Power Switchgear redundant power loop for WCF.

Manufacturing Support

Description:

To purchase equipment to support the manufacturing of U.S. currency.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	6.14	27.93	10.46	-17.47	-62.55%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	6.14	27.93	10.46	-17.47	-62.55%

Purpose, Accomplishments, Future Objectives:

The purpose of this project is to support the manufacturing of U.S. currency. It is a multi-year project replacing older, fully depreciated manufacturing support equipment at both of BEP's facilities. Replacing out-of-date equipment on a regular basis allows BEP to be more cost effective and efficient in meeting customer requirements for the production of currency notes. New manufacturing support equipment is typically more energy efficient, eco-friendly, and reduces machine down time. In addition, new support equipment acquired by BEP has the technical capability of producing the next generation of advanced counterfeit deterrence features for future design enhancements. The performance of this investment will be evaluated through the following two measures:

1. Comparison of productivity of new equipment with existing equipment.
2. Comparison of spoilage rates of new equipment with rates of existing equipment.

In FY 2023, a major project included E-material Online Inspection Equipment, which feature state-of-the-art technologies that will improve the expected lifespan of the light source and other key components of the units; thereby, ensuring the reliability and accurateness of the units. Other FY 2023 major projects included Roller Recovery Replacement and Intaglio UV Curing System. A FY 2024 major project includes CTO Equipment upgrades needed to upgrade the existing OptiNota (Printing Press) H with inline UV curing capability for hot foil security features. Other FY 2024 major projects include Project Bazaar Security Feature Industrialization and Rotary Screen Press. Several projects funded in FY 2024 will carry over into FY 2025. These major projects include the continuation of CTO Equipment, Project Bazaar Security Feature Industrialization, and Rotary Screen Press.

Security & Accountability

Description:

Security and Accountability improvement projects include surveillance, security and infrastructure upgrades to Washington, D.C., and Western Currency facilities.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	1.59	3.77	2.18	-1.59	-42.18%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	1.59	3.77	2.18	-1.59	-42.18%

Purpose, Accomplishments, Future Objectives:

Security and Accountability improvement projects include surveillance, security and infrastructure upgrades to Washington, D.C., and Western Currency facilities.

FY 2023 projects included WCF Mail and Package Screening as well as X-Ray Machines. FY 2024 projects include the Radio System Upgrade, WCF Microwave Intrusion Detection Upgrade, Product Security Station (PSS) upgrade/remodel and the modernization of WCF Cameras and Infrastructure and additional funding for unarmed officers for closed circuit television.

WCF Facility Expansion

Description:

The expansion of the Western Currency Facility (WCF) in Fort Worth, TX, added about 250,000 square feet of new space, to support additional production capabilities required for the accelerated currency redesign.

Investment Obligations: (In Millions of \$):

Type	FY 2023 Actuals	FY 2024 Estimated Obligations	FY 2025 Estimated Obligations	Change in \$	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	0.00	9.50	0.00	-9.50	-100.00%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	0.00	9.50	0.00	-9.50	-100.00%

Purpose, Accomplishments, Future Objectives:

The expansion added approximately 250,000 square feet to the existing facility accommodating additional production capabilities to support the next family of currency design, including space for up to five Hot Foil presses, two LEPes, tactile feature equipment, undefined future production machineries, reclamation efforts, new plating line, additional vault/ WIP space, enclosed truck cells, production support, and central utility plant upgrade. The expansion included structural enhancements to provide better protection against severe weather and possible security threats. The scope includes the security-related requirements and construction of an additional parking area to accommodate increased staffing necessary for the new equipment.

FY 2024 includes \$9.5 million for final closeout activities. There are currently no additional funds forecasted for FY 2025 for the WCF Facility Expansion, as the project will be completed.