

Department of the Treasury
Bureau of Engraving and
Printing (BEP)
FY 2023
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 2021 Actuals** -Total actual obligations
- **FY 2022 Estimated Obligations** - Anticipated obligation from all budgetary resources (i.e., balances from prior years, user fees, and FY 2022 CR levels).
- **FY 2023 President's Budget** – Requested level reflecting the President’s FY 2023 budget submission

Major IT Investments

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 2021 Actuals | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|-----------------|-------------------------------|----------------------------|-----------|----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 9.83 | 15.11 | 15.54 | 0.43 | 2.84% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 5.29 | 8.14 | 8.37 | 0.23 | 2.84% |
| Total Obligations | 15.12 | 23.25 | 23.91 | 0.66 | 2.84% |

Purpose, Accomplishments, Future Objectives:

BEP has implemented the Manufacturing Execution System (MES) comprised of previous investments (BEP Enterprise Network) to improve overall management and automation of the BEP's Currency Production and Direct Support processes. This initiative continued to increase the source data that is extracted from manufacturing equipment and improved the functionality of applications through further enhancements. During the first year of this investment, BEP integrated its new automated presses into the MES solution; deployed its first Robotics Process Automation bot to automate acquisitions auditing processes reducing processing time and increasing compliance and audit readiness; upgraded Manufacturing Support Suite (MSS) Interface for SAM.gov; streamlined Budget formulation to help reduce manual data entry and track budget approvals; developed an advanced analytics model to predict processing lead times for purchasable inventory and support Supply Chain Management with inventory management optimization; enhanced Executive Program Review Metrics to provide greater insight into health of the currency production program for the BEP Senior Executive Team and the Federal Reserve Board (FRB); and implemented Unique Entity Identifier (UEI) in MSS which includes changes in MSS to replace the Data Universal Numbering System (DUNS) attribute with GSA's new Unique Entity Identifier (UEI) attribute from SAM.gov as part of the government-mandated UEI Transition.

This investment will continue to improve data consistency, transparency, and accountability by providing Senior Executives, Chiefs and Managers with enhanced functionality. Some of the objectives of this investment are the Bi-directional integration for Single Note Inspection Finishing equipment; MSS Integration with Procurement Integrated Enterprise Environment - Electronic Data Access (PIEE-EDA); Mobile advancements with Supply Chain Management; Develop Next Generation Architecture Plan; Enhanced data driven decision making through Self-Service Analytics; Architectural Planning for Data Center Migration to the new D.C. Facility and continued investigation and application of Artificial Intelligence/Machine Learning technologies to support achievement of enterprise-wide strategic and operational goals.

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 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 2021 Actuals | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|-----------------|-------------------------------|----------------------------|-----------|----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 34.17 | 78.03 | 100.50 | 22.47 | 28.80% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Obligations | 34.17 | 78.03 | 100.50 | 22.47 | 28.80% |

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 2022 major projects include:

- \$100 Finishing Line (Single Note Inspection (SNI))
 - Acquisition of \$100 Finishing Lines for both facilities. New line to include one (1) Numbering Letterpress (NL) and one (1) Cutting-Inspection-Packaging (C-SNI-P) machine for each facility.
 - New process will overprint serial numbers and seals in sheet format. Sheets will then be processed on Cutting-Inspection-Packaging machine that will sort individual notes by inspection results. Existing Banknote Processing System (BPS) machinery will be used as part of the new finishing line; two (2) C-SNI-P machines are required to support one (1) NL.
- Non-Sequential LEPE

- Acquisition of two Non-sequential Large Examining and Printing Equipment (ns-LEPE) for WCF and one ns-LEPE for DCF.
- Physical Vapor Disposition (PVD) chrome
 - This requirement replaces the existing traditional chrome plating system with the PVD Chrome which is environmentally friendly and provides better durability.

FY 2023 major projects include continuing the PVD chrome projects and:

- Non-Sequential LEPE
 - The ns-LEPEs are capable of manufacturing larger sheet sizes allowing 50 versus 32 notes on each sheet. This provides additional production capability.
- PVD Chrome
 - This requirement is to replace 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, DC facility to achieve increased efficiencies and reduced annual operating costs.

Investment Obligations: (In Millions of \$):

| Type | FY 2021 Actuals | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|-----------------|-------------------------------|----------------------------|-----------|-----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 33.88 | 11.77 | 897.05 | 885.28 | 7,521.50% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Obligations | 33.88 | 11.77 | 897.05 | 885.28 | 7,521.50% |

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 building and Annex building. 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; physical and product security.

BEP is conducting a suitability assessment of the site with the support from the U.S. Army Corps of Engineers. A replacement facility will save an estimated \$579 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 2021, BEP conducted the initiation of early site development construction activities estimated at \$30 million, to include the removal of hazardous building materials, demolition of twenty-two facilities, and minor utility system relocations to support the BEP development. In FY 2022, BEP adjusted the timing of the anticipated obligation of \$897M for the next phase of the replacement facility project to occur in FY 2023.

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 2021 Actuals | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|-----------------|-------------------------------|----------------------------|-----------|----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 6.77 | 9.13 | 13.55 | 4.43 | 48.49% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Obligations | 6.77 | 9.13 | 13.55 | 4.43 | 48.49% |

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 2021, Facilities Support consisted of major projects supporting both WCF and DCF. Major projects included air handler refurbishment, compressed air and vacuum pump upgrades, and roof repair. In FY 2022 major projects for DCF include Currency Technology Office (CTO) Ink Lab Improvement, which is in the Office of Currency Manufacturing (OCM); Renovation & Work-In-Progress (WIP) Storage, which provides more efficient improved process flows and additional space for WIP storage. DCF support also includes switchgear replacement for the main building, the gears are 35 years old and in need of immediate replacement. WCF major projects include the New Federal

Reserve Vault Automated Racking System LED lighting upgrades, new vault automated racking system and Plate Printing Subsurface Containment Redesign for WCF. In FY 2023, major projects include WCF’s air handler refurbishment, building automation system upgrades, solar/renewable energy project and pre-wipe tank replacement. There are no approved DCF forecasted projects for 2023.

Manufacturing Support

Description:

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

Investment Obligations: (In Millions of \$):

| Type | FY 2021 Actuals | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|-----------------|-------------------------------|----------------------------|-----------|----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 2.57 | 9.92 | 2.56 | -7.36 | -74.19% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Obligations | 2.57 | 9.92 | 2.56 | -7.36 | -74.19% |

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 to produce currency notes. New manufacturing support equipment is typically more energy efficient, eco-friendly and reduces machine down time. In addition, new support equipment acquired 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.

FY 2022 major investments included lab equipment for security features research and development as well as Roller room replacement equipment. Manufacturing upgrades for FY 2022 also include E-Material On-Line inspection equipment and new distinctive N-Fiber cutting equipment. BEP anticipates ongoing replacement of equipment to support engraving and research and development through FY 2023. As a result of these upgrades, BEP will realize an anticipated benefit of producing notes at a lower cost with a higher quality, enhanced counterfeit deterrence and improved productivity.

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 2021 Actual | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|----------------|-------------------------------|----------------------------|-----------|----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 0.45 | 17.01 | 4.07 | -12.94 | -76.07% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Obligations | 0.45 | 17.01 | 4.07 | -12.94 | -76.07% |

Purpose, Accomplishments, Future Objectives:

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

In FY 2021, BEP's security and accountability improvements included DCF/WCF Duty Pistol Replacements and Central Verification Area (CVA) equipment. FY 2022 projects include a DCF Digital Video Recording System Replacement and TRACE+BIG DATA, a Note Traceability project. TRACE+ BIG DATA is also the primary security and accountability project in FY 2023.

WCF Facility Expansion

Description:

A proposed expansion to the Western Currency Facility (WCF) in Fort Worth, TX, adding about 250,000 square feet of new space, to support additional production capabilities required for the accelerated currency redesign of the \$5, \$10 and \$20 notes.

Investment Obligations: (In Millions of \$):

| Type | FY 2021 Actuals | FY 2022 Estimated Obligations | FY 2023 President's Budget | \$ Change | % Change |
|--|-----------------|-------------------------------|----------------------------|-----------|----------|
| Sub-Total DME Obligations (Including Internal labor (Govt. FTE)) | 21.50 | 13.00 | 20.00 | 7.00 | 53.85% |
| Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE)) | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Obligations | 21.50 | 13.00 | 20.00 | 7.00 | 53.85% |

Purpose, Accomplishments, Future Objectives:

This project is an expansion to the Western Currency Facility (WCF) in Fort Worth, TX. The expansion will add approximately 250,000 square feet to the existing facility which will accommodate 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 will include 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.

In FY 2022, the budget included an anticipated \$7.0 million for Supervision, Inspection & Overhead labor to complete the construction project and \$6.0 million for contingency based on the risk associated with the remaining critical components of the expansion facility. These components include electrical/security integration, equipment commissioning, and unforeseen conditions/constructability. These activities will continue in FY 2023 as the expansion is integrated with the existing facility.