

Department of the Treasury

BEP

2022

Capital Investment Plan

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Major IT Investments

Integration & Enhancements

Description:

Upgrades to BEP's 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 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	10.01	1.59	0.00	-1.59	-100.00%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	3.53	0.58	0.00	-0.58	-100.00%
Total Obligations	13.54	2.17	0.00	-2.17	-100.00%

Purpose, Accomplishments, Future Objectives:

BEP has implemented the BEP Enterprise Network (BEN) - a comprehensive, technology-centric program focused on systems modernization and business transformations. BEN aims to improve overall management and automation of BEP's Currency Production and Direct Support processes. This initiative involves upgrading BEP's IT infrastructure and installing new or upgraded software functionality to support the Bureau's core manufacturing and support business processes with an integrated database. BEN is built on a Commercial Off-The-Shelf solution that utilizes Oracle's Enterprise Resource Planning (ERP) and contains several customized ERP modules.

This investment replaces the previous investments (Manufacturing Support System, Data Management Module, and Manufacturing Execution Console) with integrated multiple data source systems to improve data consistency, transparency and accountability, leading to decision making based on more accurate information. These integrated systems have improved workload planning and coordination across the Bureau by providing Senior Executives, Chiefs and Managers with near real time data. This has improved efficiency by reducing the amount of time spent searching for data to support job functions. Future objectives are to continue to increase the source data that is extracted from manufacturing equipment and improve the functionality of the applications through further enhancements. These future objectives are realigned and captured in the MES Support investment.

MES Support

Description:

Enhances and maintains BEP's IT infrastructure and software to support BEP's core manufacturing and support business processes with an integrated database. This investment replaces the previous Integration and Enhancement investment.

Investment Obligations (In Millions of \$):

Type	FY 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	0.00	14.25	14.44	+0.19	+1.33%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	7.88	7.99	+0.11	+1.40%
Total Obligations	0.00	22.13	22.43	+0.30	+1.36%

Purpose, Accomplishments, Future Objectives:

The Bureau of Engraving and Printing (BEP) has been implementing the BEP Manufacturing Enterprise System (MES) initiative. The system was formerly referred to as the BEP Enterprise Network (BEN). MES is a comprehensive, technology-centric program focused on systems modernization and business transformation. MES aims to improve overall management and automation of BEP's Currency Production and Direct Support processes. This initiative includes a complete suite of support services in order to enhance and maintain the MES. This support includes all necessary development, architectural, program management, enterprise data and performance management, analytics, knowledge transfer/training, technical management consulting, and operations and maintenance support.

This investment replaces the previous investment (Integration and Enhancement). In addition to enhancement and maintenance, future objectives of MES Support will implement a number of new functions in order to optimize the supply chain process; support the design, implementation and maintenance of an MES Knowledge Management/Training strategy; and provide a catalyst for BEPs ongoing evolution and maturity by providing access to emerging technological concepts and products to be utilized through agile methods to pilot and prototype business scenarios that are relevant to the mission objectives of the organization.

Major Non-IT Investments

Currency Production (formerly known as Retooling)

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 (Federal Reserve Board) 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 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	1.14	59.68	96.65	36.98	61.96%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	1.14	59.68	96.65	36.98	61.96%

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 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. 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.

Due to the pandemic, most projects planned for FY 2020 were delayed to future fiscal years. FY 2021 major projects include:

- Printing Presses mechanical and electrical upgrade
 - This requirement is to install and integrate the latest electrical, mechanical and inspection components into the BEP's existing printing presses as an upgrade to the current systems. This is necessary to maintain the print quality.
- Wrapping System replacement
 - This requirement is to replace the existing wrapping system due to machine obsolescence. The current systems have passed their lifetime and cannot be supported by the equipment manufacturer.
- Laser pantograph machine
 - This requirement is to increase the efficiency of the direct-to-plate laser engraving process.

- Physical Vapor Disposition (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.

FY 2022 major projects include continuing the wrapping system and PVD chrome projects and:

- \$100 finishing line (SNI)
 - This requirement is to meet the requirement of the Federal Reserve Board that all \$100s in reclamation or production will have the same appearance. This requirement will also track the serial numbers of notes in every bundle and cash-pack.
- Offset press replacement
 - This requirement is for a new offset press.
- Non-sequential Large Examining and Printing Equipment (ns-LEPE)
 - The ns-LEPEs are capable of manufacturing larger sheet sizes allowing 50 versus 32 notes on each sheet. This provides additional production capability.

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 in order to achieve increased efficiencies and reduced annual operating costs.

Investment Obligations (In Millions of \$):

Type	FY 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	5.05	29.94	897.05	867.11	2,896.62%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	5.05	29.94	897.05	867.11	2,896.62%

Purpose, Accomplishments, Future Objectives:

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

2020, the budget included about \$5 million for the remaining site evaluation tasks and relocation of several onsite USDA facilities that must be removed prior to the initiation of onsite BEP construction activities. Anticipated in FY 2021 is 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. FY 2022 funding in the amount of \$897 million will include the award of the main facility and site construction contract.

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 associated with the facilities.

Investment Obligations (In Millions of \$):

Type	FY 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	13.51	20.12	15.23	-4.89	-24.30%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	13.51	20.12	15.23	-4.89	-24.30%

Purpose, Accomplishments, Future Objectives:

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 associated with the 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 2020, Facilities Support consisted of major projects that supported both WCF and DCF. Major projects included air handler refurbishment, fire alarm system upgrade, roof repair, and elevator modernization. In FY 2021 major projects for DCF include Office of Currency Manufacturing (OCM) Renovation & 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, which is 35 years old and in need of immediate switchgear replacement. WCF major projects include Pre-Wipe tank replacement to support the new press lines, building automation system upgrades, and 362,000 square feet of roof replacement for WCF. Projected requirements also include a compressed air and vacuum pump upgrade, elevator modernization upgrade for the existing, aging elevator units and water wipe filtration system replacement for WCF. In FY 2022, major projects include WCF's new vault automated racking system and office workspace renovation for DCF.

Manufacturing Support

Description:

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

Investment Obligations (In Millions of \$):

Type	FY 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	6.95	25.84	15.32	-10.52	-40.71%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	6.95	25.84	15.32	-10.52	-40.71%

Purpose, Accomplishments, Future Objectives:

The purpose of this project is to support the manufacturing of U.S. currency. It is a multi-year project that replaces older, fully depreciated manufacturing support equipment at both 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.

FY 2020 major investments included equipment for security feature research and development, plate punches, a wire machine and spectrometers. BEP anticipates continuing to replace equipment to support engraving and research and development. These upgrades include a new EDM laser for engraving and the continued upgrades of their rotary screen presses for research and development. FY 2021 major projects include equipment for security feature research and development, equipment for polishing and cleaning of plates and third generation online inspection equipment. FY 2022 major projects include barcoding/RFID implementation, equipment for security feature development, digital quality standards system/equipment, a new ink mill and a jogger. 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 and Western Currency facilities.

Investment Obligations (In Millions of \$):

Type	FY 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	0.91	6.08	0.00	-6.08	-100.00%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	0.91	6.08	0.00	-6.08	-100.00%

Purpose, Accomplishments, Future Objectives:

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

In FY 2020, BEP's security and accountability improvements included external physical security upgrades and portable ballistic shields. FY 2021 projects include radio system upgrade and in-car video equipment. There are no planned major projects in this portfolio in FY 2022.

WCF Building Expansion

Description:

A proposed expansion to the Western Currency Facility (WCF) in Fort Worth, TX, adding about 250,000 sq. ft. 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 2020 Actual Obligations	FY 2021 Estimated Obligations	FY2022 President's Budget	\$ Change	% Change
Sub-Total DME Obligations (Including Internal labor (Govt. FTE))	20.95	7.75	3.98	-3.77	-48.65%
Sub-Total O&M Obligations (Including Internal Labor (Govt. FTE))	0.00	0.00	0.00	0.00	0.00%
Total Obligations	20.95	7.75	3.98	-3.77	-48.65%

Purpose, Accomplishments, Future Objectives:

This project is a 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/ work-in process (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 2021, the budget included about \$1 million for the remaining site evaluation tasks and relocation of several onsite USDA facilities that must be removed prior to the initiation of onsite BEP construction activities. The remaining funding for FY 2022 is aligned to the expansion work which is expected to be completed in FY 2022.