Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Office of the Secretary Of Defense	Date: March 2023
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	0.000	23.069	39.479	53.726	-	53.726	58.489	59.740	60.910	62.143	Continuing	Continuing
035: *Operational Energy Prototyping*	0.000	9.344	39.479	53.726	-	53.726	58.489	59.740	60.910	62.143	Continuing	Continuing
036: *Commanding Energy*	-	5.295	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
038: *Powering the Force*	-	4.315	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
054: *Electrifying the Battlespace*	-	4.115	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

New start (Y/N): No

A. Mission Description and Budget Item Justification

The Operational Energy Prototyping (OEP) program prototypes, validates, and demonstrates the most promising, innovative, and cost-effective technologies and methods that address joint, high-priority, operational energy requirements.

This program supports the Department's initiatives to Build Sustainable and Long-Term Advantage and a Resilient Joint Force. The OEP program matures and demonstrates technology that enables increased operational reach, reduces emissions and logistical burdens that will support the Department's strategic goals to deter aggression and strategic attacks against the United States, allies, and partners, while being prepared to prevail in conflict when necessary, prioritizing the People's Republic of
China (PRC) challenge in the Indo-Pacific, and the Russia challenge in Europe. OEP is the Department's dedicated investment for Operational Energy Prototype development, validation, and warfighter demonstration to address joint operational energy requirements. Investments in OEP support current policy objectives and inform future policy goals.

The OEP program prototypes, validates, and demonstrates the most promising, innovative, and cost-effective technologies and methods that address joint, high-priority, operational energy requirements.

This program supports the Department's initiatives to Build Sustainable and Long-Term Advantage and a Resilient Joint Force. The OEP program matures and demonstrates technology that enables increased operational reach, reduces emissions and logistical burdens that will support the Department's strategic goals to deter aggression and strategic attacks against the United States, allies, and partners, while being prepared to prevail in conflict when necessary, prioritizing the PRC challenge in the Indo-Pacific, and the Russia challenge in Europe. OEP is the Department's dedicated investment for Operational Energy Prototype development, validation, and warfighter demonstration to address joint operational energy requirements. Investments in OEP support current policy objectives and inform future policy goals.

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Office of the Secretary Of Defense	Date: March 2023
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604555D8Z *I Operational Energy Capability Improvement*

OEP funding efforts will identify and mitigate energy-related risks and increase warfighting capabilities and resilience. OEP will invest in prototyping, validating, and demonstrations in three focus areas:

• Powering the Force: Support the deployment of mobile and distributed operations with resilient and agile energy logistics in contested environments. Reduce the risks, vulnerability, and climate impacts of the DOD's dependence on fuel.
• Electrifying the Battlespace: Enable the electrification of weapons, platforms, unmanned systems, and soldiers to field new weapon, sensing, active defense, and other technologies. Meet the growing demands of power across the battlespace.
• Commanding Energy: Capture and understand energy profiles to transform the Joint Force from reactive to predictive energy management and control. Achieve real-time energy awareness and command and control at all levels.

OEP serves as the program by which operational energy technology advances made under the Operational Energy Capability Innovation (OECI) can transition to military service acquisition programs. Transition plans for each prototype are established to ensure that components have time to plan, program, and budget for technology transition to programs of record.

B. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	23.069	45.779	54.801	-	54.801
Current President's Budget	23.069	39.479	53.726	-	53.726
Total Adjustments	0.000	-6.300	-1.075	-	-1.075
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.300			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-1.075	-	-1.075

Change Summary Explanation

FY 2024 decrease due to a reduction of technology road mapping efforts within operational energy innovations and deconfliction of efforts across the Services.

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense			Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604555D8Z / *Operational Energy Capability Improvement*	Project (Number/Name) 035 / *Operational Energy Prototyping*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
035: *Operational Energy Prototyping*	0.000	9.344	39.479	53.726	-	53.726	58.489	59.740	60.910	62.143	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The mission of the OEP is to fund warfighter prototyping, demonstration, and transition that will improve DOD operational effectiveness. As Defense-Wide funding it promotes long term change in DOD capabilities so they are better aligned with the Operational Energy Strategy.

OEP fosters non-science and technology innovation to improve operational energy performance and has two key mission aspects. First, to ruggedize, demonstrate, and transition into use operational energy technologies and practices that will improve DOD military capabilities, resiliency, and/or reduce costs. Second, to establish within the military Services sustainable, institutional capability to continue to develop and adopt operational energy innovations.

OEP serves as the program by which operational energy technology advances made under the Operational Energy Capability Innovation program (OECI) can transition to military service acquisition programs without delay and loss of momentum. Transition plans for each successful prototype will be established to ensure that components have time to plan, program, and budget for technology transition to programs of record. Demand for this program is greater than 4 times the funding available ensuring the most competitive programs are awarded to move forward.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Operational Energy Prototyping (OEP)	9.344	39.479	53.726
Description: Operational Energy Prototyping (OEP) continues to identify and demonstrate the most promising, innovative, and cost-effective technologies and methods that address joint high-priority operational energy requirements. OEP solicits proposals from across the DoD and competitively awards projects based on OE impact and programmatic transition. Warfighter feedback is obtained through limited technical assessment, static demonstration, and participation in formal exercises. Transition plans are established for each prototype to ensure support for requirements and acquisition programs of record. OEP invests in prototyping, validations, and demonstrations in four focus areas: (1) support prototype development of new operational energy technologies, (2) carry out formal demonstrations at installations or in conjunction with exercises conducted by the Joint Staff, a combatant command, or a military department, (3) collect cost and performance data to overcome barriers against employing an innovative technology because of concerns regarding technical or programmatic risk, and (4) provide the tools and analysis that quantifies the mission impact of these new technologies.			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 035 / *Operational Energy Prototyping*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Field-based airborne power generation systems; renewable space-based solar advances; smaller, mobile, and modular waste-to-energy systems securing warfighter health through mitigating burn-pit exposure. ***FY 2023 Plans:*** Complete FY 2022 project starts. OEP competitively awarded nine projects encompassing Space, Land, Sea, and Air combat domains. Space Force Power beaming enables increased efficiency for space satellites, while improved solar cell manufacturing lowers costs of high-grade photovoltaics applicable to Space domains and earthbound applications. Anti-idle technology reduces tactical vehicle idle time up to 17 hours per day, with a correlative reduction on energy and carbon emissions. Unmanned aircraft systems increased mission time on station due to weather-based route planning, electronic control unit modifications, and hybrid-energy system employment. Increased energy awareness on the battlefield with automated fuel reporting, and metering and monitoring of energy storage and three-phase electric power. The Tactical Microgrid Standard (TMS) has been fully ratified (MIL-PRF-3071) yielding improved policy and acquisition of smart-grid usage of electrical power. Presidential directed actions towards burn pit closures identified requirements for miniaturization of waste incineration and waste to energy systems. The September 2022 Pentagon Energy Expo brought over 100 technologies from across the DOD to the Pentagon for display to the Deputy Secretary of Defense, Congressional Members, and Service Flag Officers and OEP continues to advocate for DOD-wide adoption and promote transition. Demand for funding of Operational Energy, Advanced Technology Development mature programs is more than four times the funding available annually. In FY 2022 OECI will complete projects in energy storage, tactical microgrids, nuclear fuel production, space solar, and power and thermal management for high-energy weapons. OEP will continue to operationalize the best of these efforts with continued prototyping ahead of transition to programs of record. FY 2023 Projects encompass all combat domains and all aspects of operational energy systems. Data collection, warfighter demonstrations, analytical impact and quantification are also core tenants of OEP. Congressional adds for Airborne Energy Generation as well as continued efforts for burn pit mitigation are planned. OEP will leverage the fully ratified TMS to synchronize efforts to ensure roadmaps are developed leading to out-year DOD-wide adoption of tactical microgrids. ***FY 2024 Plans:*** In FY 2024 OECI will complete projects in energy storage, tactical microgrids, nuclear fuel production, space solar, and power and thermal management for high-energy weapons. OEP will continue to competitively award projects and operationalize the best of these proposed efforts with continued prototyping, validation, and demonstration ahead of transition to programs of record.			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 035 / *Operational Energy Prototyping*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Projects will encompass all combat domains and all aspects of operational energy systems. Data collection, warfighter demonstrations, analytical impact and quantification are core tenants of OEP. Increased warfighter evaluations moving closer to operational environments will strengthen fidelity of technology impact and transition. Future plans focus on improving agility, sustainability and resiliency of the Joint Force, through cold weather technologies, radio isotropic fuels for modular nuclear generation, waste-to-energy, space-based capabilities, power beaming, energy storage, and microgrid prototype demonstrations with both storage and renewable energy for enhanced warfighter effectiveness. Additional funding will be allocated to advancing Section 324(c4) of the National Defense Authorizations Act for FY 2021 to ensure development of a DoD-wide operational energy tool for accountability and transition. ***FY 2023 to FY 2024 Increase/Decrease Statement:*** This program accelerates the deployment of innovative technologies that improve operational energy efficiency and security in a contested logistics environment. The demand was validated in FY 2022. The FY 2024 increase aligns with advanced technologies maturation through OECIF (0604055D8Z) and the Services to rapidly transition capability to the warfighter. The program demonstrates and transitions technologies focused on solutions to reduce the time and cost to implement and operate tactical microgrids, optimized energy storage, and extended duration and use of autonomous systems, as examples.			
Accomplishments/Planned Programs Subtotals	9.344	39.479	53.726

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 035 / *Operational Energy Prototyping*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/IDDQ	TBD : TBD	0.000	1.200		2.100		2.400		-		2.400	-	-	N/A
		Subtotal	0.000	1.200		2.100		2.400		-		2.400	-	-	N/A

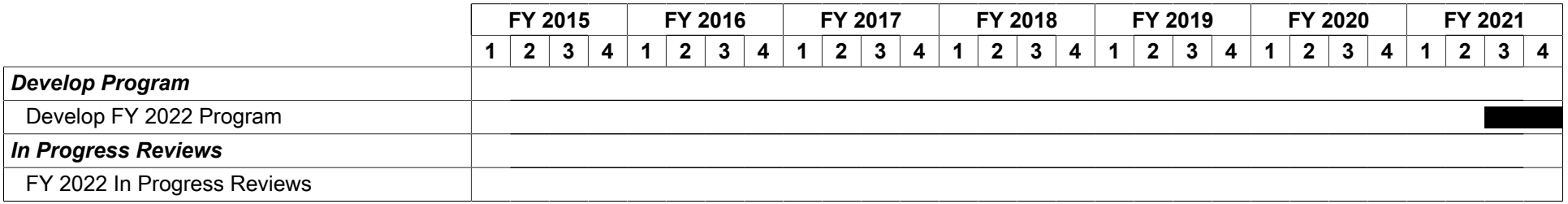
Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Energy Prototyping	TBD	Various : Various	0.000	8.144		37.379		51.326		-		51.326	-	-	N/A
		Subtotal	0.000	8.144		37.379		51.326		-		51.326	-	-	N/A

	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	9.344		39.479		53.726		-		53.726	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 035 / *Operational Energy Prototyping*



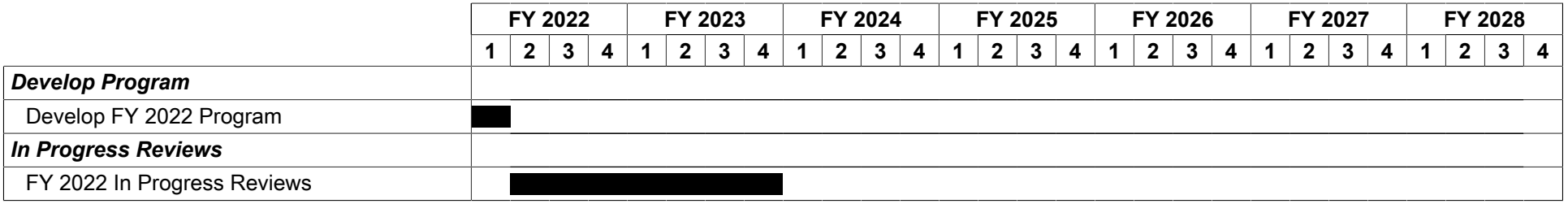


Exhibit R-4A, RDT&E Schedule Details: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 035 / *Operational Energy Prototyping*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Develop Program				
Develop FY 2022 Program	3	2021	1	2022
In Progress Reviews				
FY 2022 In Progress Reviews	2	2022	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense			Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604555D8Z / *Operational Energy Capability Improvement*	Project (Number/Name) 036 / *Commanding Energy*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
036: *Commanding Energy*	-	5.295	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The mission of the OEP is to fund warfighter prototyping, demonstration, and transition that will improve DOD operational effectiveness. As Defense-Wide funding it promotes long term change in DOD capabilities so they are better aligned with the Operational Energy Strategy.

OEP fosters non-S&T innovation to improve operational energy performance and has two key mission aspects. First, to ruggedize, demonstrate, and transition into use operational energy technologies and practices that will improve DOD military capabilities, resiliency, and/or reduce costs. Second, to establish within the military Services sustainable, institutional capability to continue to develop and adopt operational energy innovations.

OEP serves as the program by which operational energy technology advances made under the Operational Energy Capability Innovation program (OECI) can transition to military service acquisition programs without delay and loss of momentum. Transition plans for each successful prototype will be established to ensure that components have time to plan, program, and budget for technology transition to programs of record. Demand for this program is greater than 4 times the funding available ensuring the most competitive programs are awarded to move forward.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Commanding Energy	5.295	-	-
Description: Operational Energy Prototyping (OEP) continues to identify and demonstrate the most promising, innovative, and cost-effective technologies and methods that address joint high-priority operational energy requirements. OEP solicits proposals from across the DOD and competitively awards projects based on OE impact and programmatic transition. Warfighter feedback is obtained through limited technical assessment, static demonstration, and participation in formal exercises. Transition plans are established for each prototype to ensure support for requirements and acquisition programs of record. OEP invests in prototyping, validations, and demonstrations in four focus areas: (1) support prototype development of new operational energy technologies, (2) carry out formal demonstrations at installations or in conjunction with exercises conducted by the Joint Staff, a combatant command, or a military department, (3) collect cost and performance data to overcome barriers against employing an innovative technology because of concerns regarding technical or programmatic risk, and (4) provide the tools and analysis that quantifies the mission impact of these new technologies.			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 036 / *Commanding Energy*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Commanding Energy - Automated Fuel Reporting and Deployable Metering and Monitoring transitions networked knowledge of energy resources, usage, and combat needs; Tactical Microgrid Standard transitions to the Army and USMC acquisitions offices enabling efficient and optimal energy use across the battlespace; Enhancing energy tools for warfighter mission planning.			
Accomplishments/Planned Programs Subtotals	5.295	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 036 / *Commanding Energy*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Commanding Energy	TBD	Various : Various	-	5.295		-		-		-		-	Continuing	Continuing	-
		Subtotal	-	5.295		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	5.295		-		-		-		-	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 036 / *Commanding Energy*

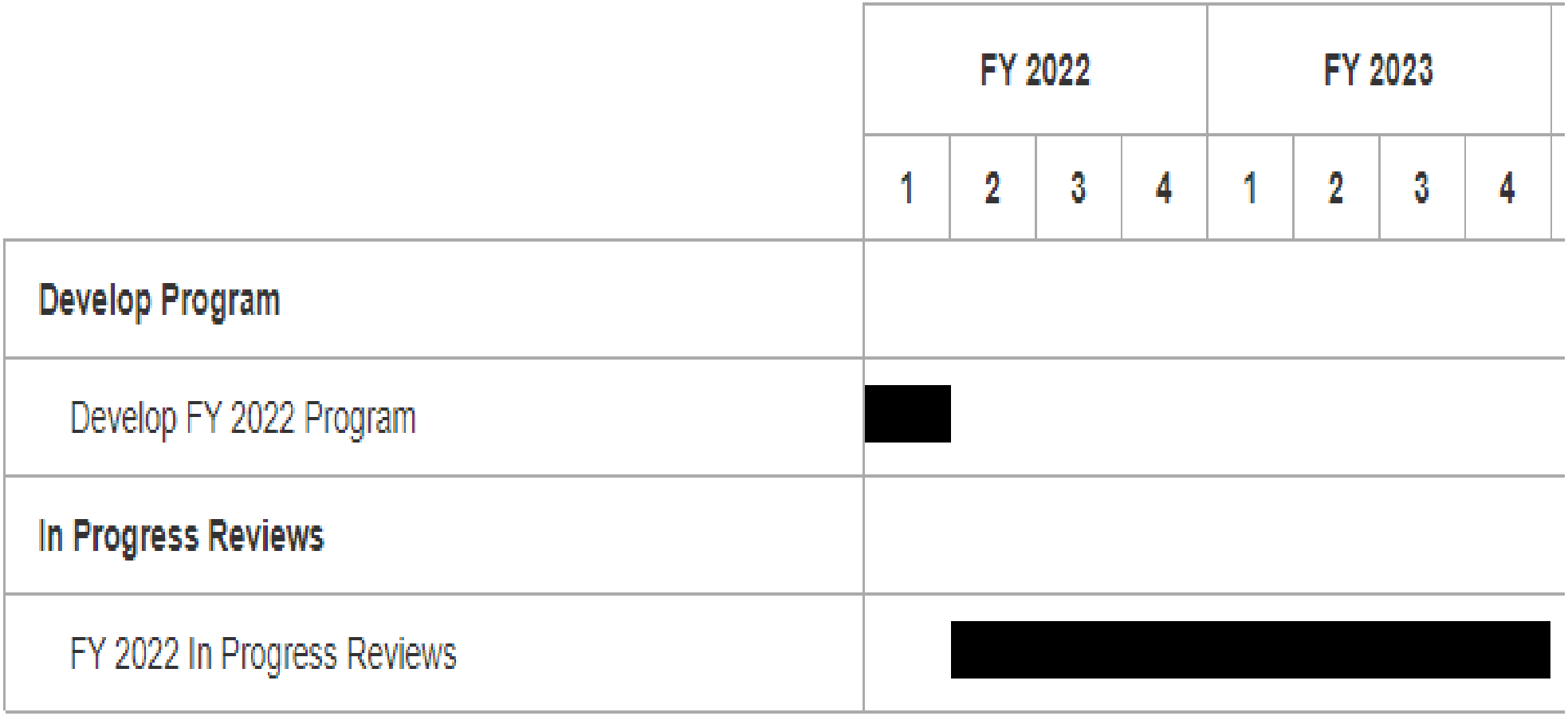


Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense			Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604555D8Z / *Operational Energy Capability Improvement*	Project (Number/Name) 038 / *Powering the Force*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
038: *Powering the Force*	-	4.315	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The mission of the OEP is to fund warfighter prototyping, demonstration, and transition that will improve DOD operational effectiveness. As Defense-Wide funding it promotes long term change in DOD capabilities so they are better aligned with the Operational Energy Strategy.

OEP fosters non-S&T innovation to improve operational energy performance and has two key mission aspects. First, to ruggedize, demonstrate, and transition into use operational energy technologies and practices that will improve DOD military capabilities, resiliency, and/or reduce costs. Second, to establish within the military Services sustainable, institutional capability to continue to develop and adopt operational energy innovations.

OEP serves as the program by which operational energy technology advances made under the Operational Energy Capability Innovation program (OECI) can transition to military service acquisition programs without delay and loss of momentum. Transition plans for each successful prototype will be established to ensure that components have time to plan, program, and budget for technology transition to programs of record. Demand for this program is greater than 4 times the funding available ensuring the most competitive programs are awarded to move forward.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Powering the Force	4.315	-	-
Description: Operational Energy Prototyping (OEP) continues to identify and demonstrate the most promising, innovative, and cost-effective technologies and methods that address joint high-priority operational energy requirements. OEP solicits proposals from across the DOD and competitively awards projects based on OE impact and programmatic transition. Warfighter feedback is obtained through limited technical assessment, static demonstration, and participation in formal exercises. Transition plans are established for each prototype to ensure support for requirements and acquisition programs of record. OEP invests in prototyping, validations, and demonstrations in four focus areas: (1) support prototype development of new operational energy technologies, (2) carry out formal demonstrations at installations or in conjunction with exercises conducted by the Joint Staff, a combatant command, or a military department, (3) collect cost and performance data to overcome barriers against employing an innovative technology because of concerns regarding technical or programmatic risk, and (4) provide the tools and analysis that quantifies the mission impact of these new technologies. Powering the Force – Uncrewed Aerial Vehicle technology transition increases mission on-station time and energy savings with positive climate impact; on-orbit demonstration of wireless power transfer.			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 038 / *Powering the Force*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Accomplishments/Planned Programs Subtotals	4.315	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Office of the Secretary Of Defense			Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604555D8Z / *Operational Energy Capability Improvement*	Project (Number/Name) 038 / *Powering the Force*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Powering the Force	TBD	Various : Various	-	4.315		-		-		-		-	Continuing	Continuing	-
		Subtotal	-	4.315		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.315		-		-		-		-	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 038 / *Powering the Force*

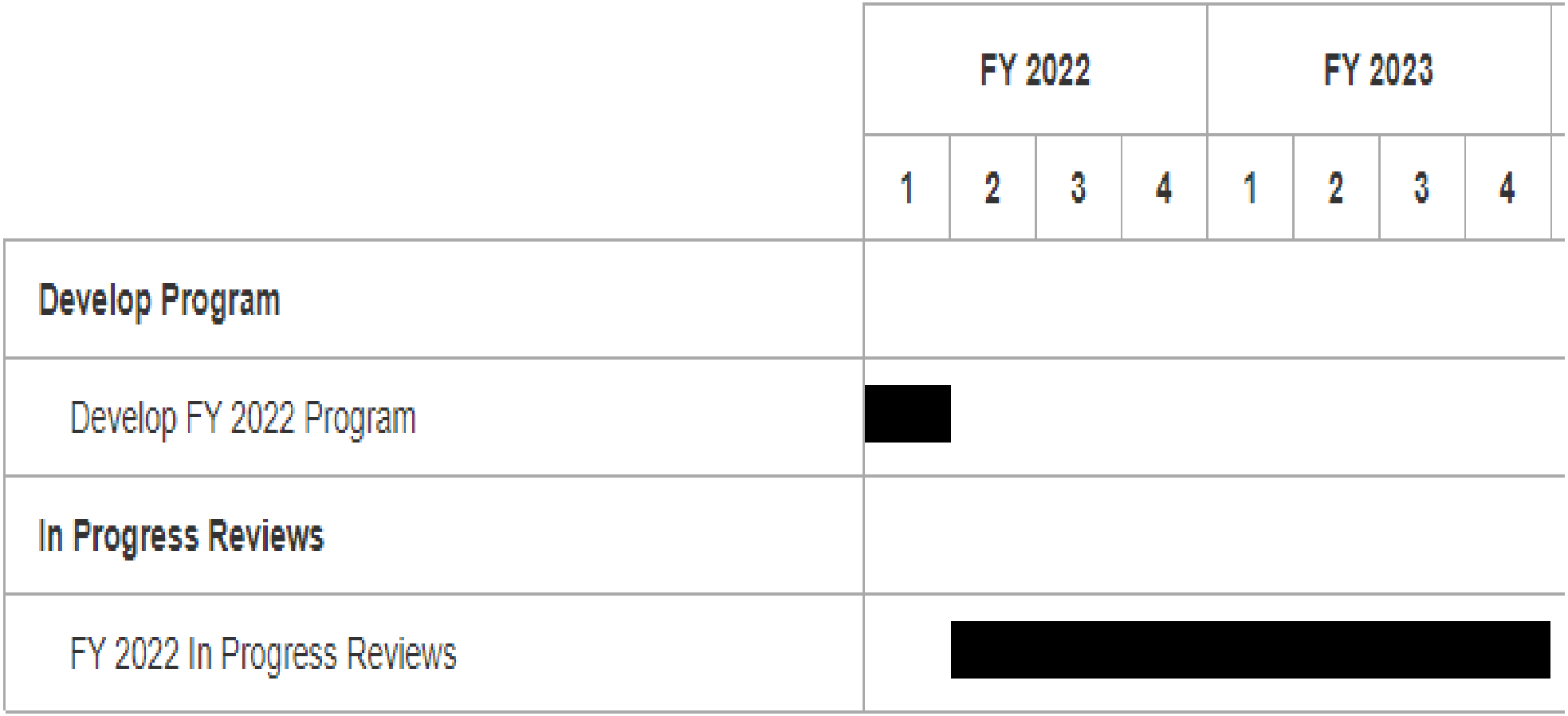


Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense			Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604555D8Z / *Operational Energy Capability Improvement*	Project (Number/Name) 054 / *Electrifying the Battlespace*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
054: *Electrifying the Battlespace*	-	4.115	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The mission of the OEP is to fund warfighter prototyping, demonstration, and transition that will improve DOD operational effectiveness. As Defense-Wide funding it promotes long term change in DOD capabilities so they are better aligned with the Operational Energy Strategy.

OEP fosters non-S&T innovation to improve operational energy performance and has two key mission aspects. First, to ruggedize, demonstrate, and transition into use operational energy technologies and practices that will improve DOD military capabilities, resiliency, and/or reduce costs. Second, to establish within the military Services sustainable, institutional capability to continue to develop and adopt operational energy innovations.

OEP serves as the program by which operational energy technology advances made under the Operational Energy Capability Innovation program (OECI) can transition to military service acquisition programs without delay and loss of momentum. Transition plans for each successful prototype will be established to ensure that components have time to plan, program, and budget for technology transition to programs of record. Demand for this program is greater than 4 times the funding available ensuring the most competitive programs are awarded to move forward.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Electrifying the Battlespace	4.115	-	-
Description: Operational Energy Prototyping (OEP) continues to identify and demonstrate the most promising, innovative, and cost-effective technologies and methods that address joint high-priority operational energy requirements. OEP solicits proposals from across the DOD and competitively awards projects based on OE impact and programmatic transition. Warfighter feedback is obtained through limited technical assessment, static demonstration, and participation in formal exercises. Transition plans are established for each prototype to ensure support for requirements and acquisition programs of record. OEP invests in prototyping, validations, and demonstrations in four focus areas: (1) support prototype development of new operational energy technologies, (2) carry out formal demonstrations at installations or in conjunction with exercises conducted by the Joint Staff, a combatant command, or a military department, (3) collect cost and performance data to overcome barriers against employing an innovative technology because of concerns regarding technical or programmatic risk, and (4) provide the tools and analysis that quantifies the mission impact of these new technologies. Electrifying the Battlespace – Enabling greater industry participation and rapid acquisition of tactical vehicle hybridization and electrification technologies by increasing the types and numbers of tactical vehicles with electric prototypes.			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 054 / *Electrifying the Battlespace*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Accomplishments/Planned Programs Subtotals	4.115	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 054 / *Electrifying the Battlespace*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Electrifying the Battlespace	TBD	Various : Various	-	4.115		-		-		-		-	Continuing	Continuing	-
		Subtotal	-	4.115		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.115		-		-		-		-	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Office of the Secretary Of Defense		Date: March 2023
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604555D8Z / *Operational Energy Capability Improvement*	**Project (Number/Name)** 054 / *Electrifying the Battlespace*