



# Symposium for Research Administrators

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University of Wisconsin-Madison  
November 8<sup>th</sup>, 2023

# **ARPA-E and DARPA: A Post-Award Perspective**

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Chelsie Propst, Research and Sponsored Programs

Sylvia Swift Kmiec, Physics

Andrew Merki, Research and Sponsored Programs/Huron  
Consulting

# Session Overview

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## **DARPA**

- Introduction
- Important Features
- Special Terms & Conditions
- Reporting Requirements
- Invoicing Process
- Tips for Success

## **ARPA-E**

- Introduction
- Important Features
- Special Terms & Conditions
- Reporting Requirements
- Invoicing Process
- Tips for Success



# DARPA

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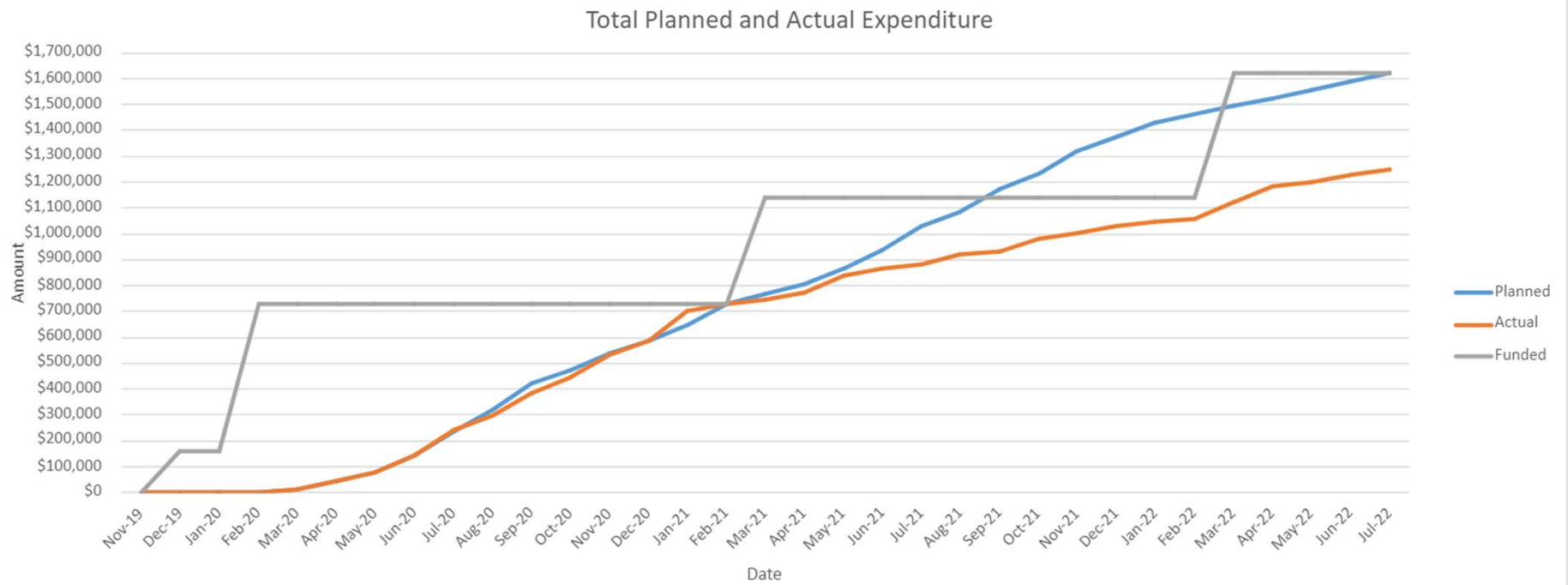
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

# Introduction to DARPA

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- Variety of award types
  - Grant/Cooperative Agreement
  - OTAs (Other Transactional Agreement)
  - IPAs (Intergovernmental Personnel Act Agreement)
- Most contracts are cost-reimbursable
- Funding issued incrementally based on milestone progress

# Important Feature: Spending Projections



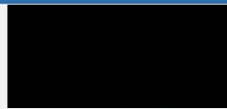
# Important Features: Spending Projections (cont.)

## Financial Summary

Program:

Contract Number:

Report Prepared by:



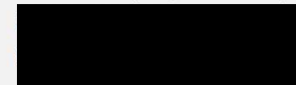
Performer:

Contract Period of Performance:

Financial POC Phone/ Email:

University of Wisconsin, Madison

Phase 1: 08/04/2022 - 05/03/2024;



**Describe any Discrepancy over \$50K between Planned and Actual Monthly Expenditures:**

Year 1	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
Total Phase Value	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000
Funds Received	\$ 962,864	\$ 962,864	\$ 962,864	\$ 962,864	\$ 962,864	\$ 962,864	\$ 962,864
Spend Plan - monthly	\$ 117,900	\$ 63,135	\$ 55,503	\$ 58,761	\$ 71,121	\$ 114,438	\$ 124,141
Spend Plan - cumulative	\$ 117,900	\$ 181,035	\$ 236,538	\$ 295,299	\$ 366,420	\$ 480,858	\$ 604,999
Actuals Incurred - monthly	\$ 2,553	\$ 46,043	\$ 34,270	\$ 53,305	\$ 77,684	\$ 38,299	\$ 96,674
Actuals Incurred - cumulative	\$ 2,553	\$ 48,596	\$ 82,867	\$ 136,172	\$ 213,856	\$ 252,155	\$ 348,830
\$ Delta	\$ (115,347)	\$ (17,092)	\$ (21,233)	\$ (5,456)	\$ 6,563	\$ (76,139)	\$ (27,467)
Actuals Invoiced - monthly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 213,856	\$ 38,299
Actuals Invoiced - cumulative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 213,856	\$ 252,155

# Special Terms & Conditions

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- ***Specific terms vary by type of award***
- 10% rebudgeting threshold
- Foreign Government/Undue foreign involvement
- Classified projects will likely have additional requirements
- Cost share generally not required!



# Reporting Requirements

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- Vary by award
- Supplemental financial reports common
  - Monthly Financial Reports (SF-425s)
  - Monthly Spending Projections vs. Actuals Report
- Subject to other common reports
  - Financial Reports (quarterly, annual, final)
  - Invention Reports (ad hoc, annual, final)
  - Property Reports (annual, final)
  - Small Business Reports

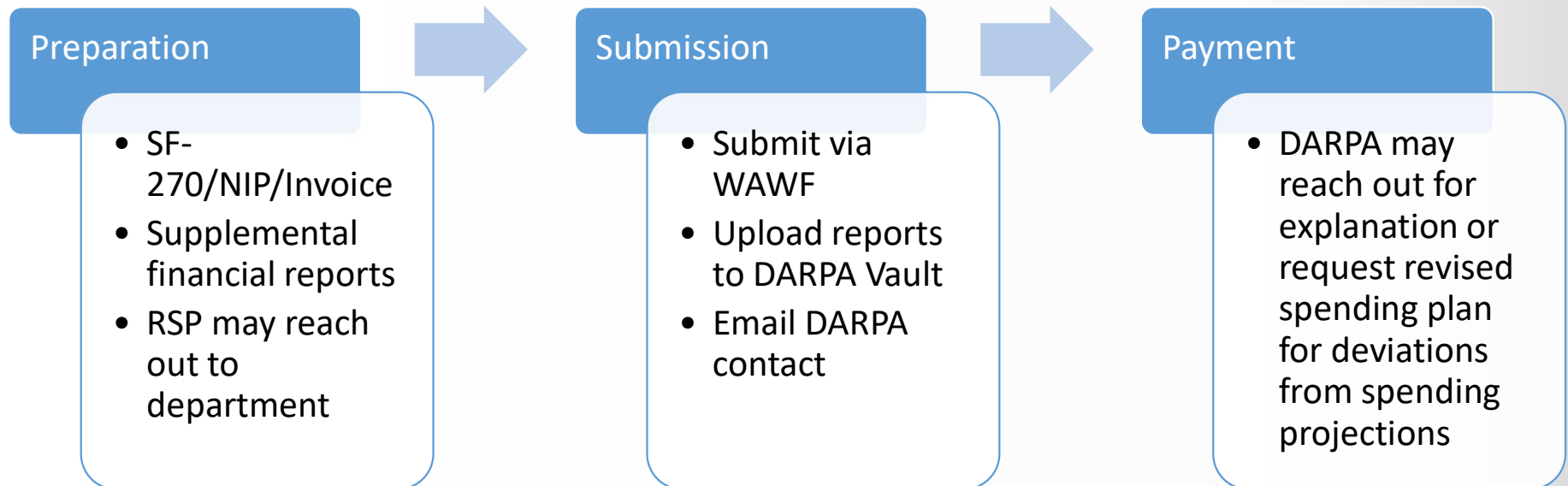
# Invoicing

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DARPA

# Invoicing

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# Frequent Issues

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- Delayed amendment processing
- Projections vs. Actual Expenditures

# Setting up for Success

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DARPA

# Spending Projections

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- Accurate spending projections!
- Ensure payroll is set up correctly at the start of the award
- Monthly review of expenditures to ensure we are following the spending projections
  - Provide explanation on why we're behind and how we plan to catch up
- DARPA reviews monthly spending very closely
  - Will reach out for explanation if we're not on track
  - May reach out to request a revised spending plan
  - In rare situations, may need to rebudget



# ARPA-e

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ADVANCED RESEARCH PROJECTS AGENCY - ENERGY

# Introduction to ARPA-E

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- Cooperative Agreements
- Cost-Reimbursable
- Funding issued incrementally by budget period



# Important Feature:

## Technology Transfer & Outreach (TT&O)

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- Purpose: To promote and further development and deployment of ARPA-E funded technologies
- Standard – 5% of Federal Funding
- Examples:
  - Patent Costs
  - Travel to ARPA-E summits and relevant conferences and events
  - Travel to meet with potential suppliers, partners, or customers
  - Work by salaried or contract personnel to develop technology-to-market models or plans
  - Costs of acquiring industry-accepted market research reports
  - Indirect costs for TT&O direct expenses

# Special Terms & Conditions: Cost Share & Cost Share Invoicing Percentage

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## a. Cost Sharing Obligations

All cost share contributions must be provided in accordance with 2 C.F.R. § 200.306 and 2 C.F.R. § 910.130. The Prime Recipient is required to pay the “Cost Share” amount stated in Block 12 of the Cover Page (Assistance Agreement Form) to this Award. By accepting federal funds under this Award, the Prime Recipient agrees that it is liable for its percentage of the total allowable project costs as specified below:

Government Share \$/%	Prime Recipient Share \$/%	Total Project Cost
\$10,000,000.00/81.50%	\$2,270,036.00/18.50%	\$12,270,036.00

→ The Prime Recipient is required to pay the “Cost Share” amount as a percentage of the total project costs in each invoice period for the duration of the period of performance.

# Special Terms & Conditions: Cost Share Invoicing Percentage

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- Waiver is possible
- Relying on the sub to provide cost share can mean delay.

Dear Mr.

We request a one-time cost share waiver on award DE- [REDACTED] (MSN2 [REDACTED]). We plan to meet our mandatory cost share target through the careful application of cost share requirements and reporting as stipulated within our budget. Most vitally, cost share requirements will primarily be met through the subrecipient [REDACTED] as described in their budget. Issues on past cost share matching arose from the challenges presented in the subaward negotiations—we are nearing completion of negotiations and the cost share will be caught up in the next invoicing period.

Thank you for your consideration of this request.

Sincerely,

Per the negotiated and approved milestones your budget periods (BP) need to be the following lengths: **BP1, 24 months and BP2, 18 months.** The \$5.26M is the federal amount for BP1 and that all needs to be in the Budget Period 1 column/row. Since it's a clean 2 years for BP1 you can just combine the costs into one budget period. The \$4,938,674 in federal funds will need to be in the BP2 column/row. We will be reviewing the total project costs for BP1 and BP2 even though Univ. of Wisconsin is only authorized to expend the \$5.26M at this time. If successful at the end of BP1 we will authorize the remaining funds.

Apologies for the cost share confusion, I should have sent the total amount to include the \$4.9M as well. Please see below. These amounts are per the approved cost share % of 18.5% that was approved at the time of selection. Please let me know if you have any questions. Thanks!

**BP1:**

Non-Fed Share (\$)	\$ 1,193,988	Cost Share Percentage	18.50%
Federal Share (\$)	\$ 5,260,000	Fed Percentage	81.50%
Total Project Cost (\$)	\$ 6,453,988		

**BP2:**

Non-Fed Share (\$)	\$ 1,121,049	Cost Share Percentage	18.50%
Federal Share (\$)	\$ 4,938,674	Fed Percentage	81.50%
Total Project Cost (\$)	\$ 6,059,723		

**TOTAL:**

Non-Fed Share (\$)	\$ 2,315,036	Cost Share Percentage	18.50%
Federal Share (\$)	\$ 10,198,674	Fed Percentage	81.50%
Total Project Cost (\$)	\$ 12,513,710		

# Special Terms & Conditions: Domestic-made Equipment/Supplies

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- In practice, they have questioned most if not all foreign vendors, regardless of dollar amount. They have accepted long lead time when time is of the essence as a valid reason. Better: no US-made equivalent exists. We try to capture these justifications before ordering. Hard to convince the project team that lower price is irrelevant. Part of one clause:

b. Purchase of Equipment/Supplies

Any new equipment acquired under this Award must be made or manufactured in the United States, to the maximum extent practicable. This requirement does not apply to used or leased equipment. Any supplies acquired under this Award must be made or manufactured in the United States, to the maximum extent practicable.

# Reporting Requirements

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- Quarterly (3/31, 6/30, 9/30, 12/31)
  - Research Performance Progress Reports
  - Financial Reports (SF-425s)
- Annual (Reporting Period varies)
  - Property Reports
  - Subject Invention Utilization Reports
- Final (90 – 120 days after end date)
  - Technical Report
  - Financial Report
  - Property Report
  - Invention Report
- Other

# ePIC

Energy Program Information Center

*ARPA-E Project Reporting and Monitoring System*

The screenshot displays the ePIC ARPA-E Project Reporting and Monitoring System interface. At the top, there is a navigation bar with the ePIC logo and the ARPA-E logo. Below this, a secondary navigation bar contains tabs for MY PROJECTS, PROJECT (with a dropdown arrow), and CALENDAR. A third navigation bar lists various menu items: Dashboard, Cost, Schedule, Technical, T2M, General Information, Awards, Strategic Outreach, Documentation, and Project Reports (highlighted in yellow). The main content area is titled "University of Wisconsin" and is organized into several sections, each with a horizontal line separator:

- PROJECT MANAGEMENT REPORTING (DURING AWARD)**
  - ▼ [Quarterly Research Performance Progress Reports \("Quarterly Reports"\)](#)
  - ▼ [Intellectual Property and Data Management Plan](#)
  - ▼ [Software and Data Reporting](#)
  - ▼ [Lobbying Activities Reporting](#)
  - ▼ [Special Status Reports](#)
  - ▼ [Subaward/Subcontract Reports](#)
- ANNUAL REPORTS**
  - ▼ [Annual Indirect Cost Proposals](#)
  - ▼ [Annual Audits of For-Profit Recipients \(316 Reports\)](#)
  - ▼ [Annual Property Inventories](#)
- CLOSEOUT REPORTING**
  - ▼ [Final Invention and Patent Report](#)
  - ▼ [Final Property Report](#)
  - ▼ [Final Scientific/Technical Report](#)
  - ▼ [Final Software Created Report](#)
- POST-AWARD REPORTING**
  - ▼ [Subject Invention Utilization Reporting](#)

# Invoicing

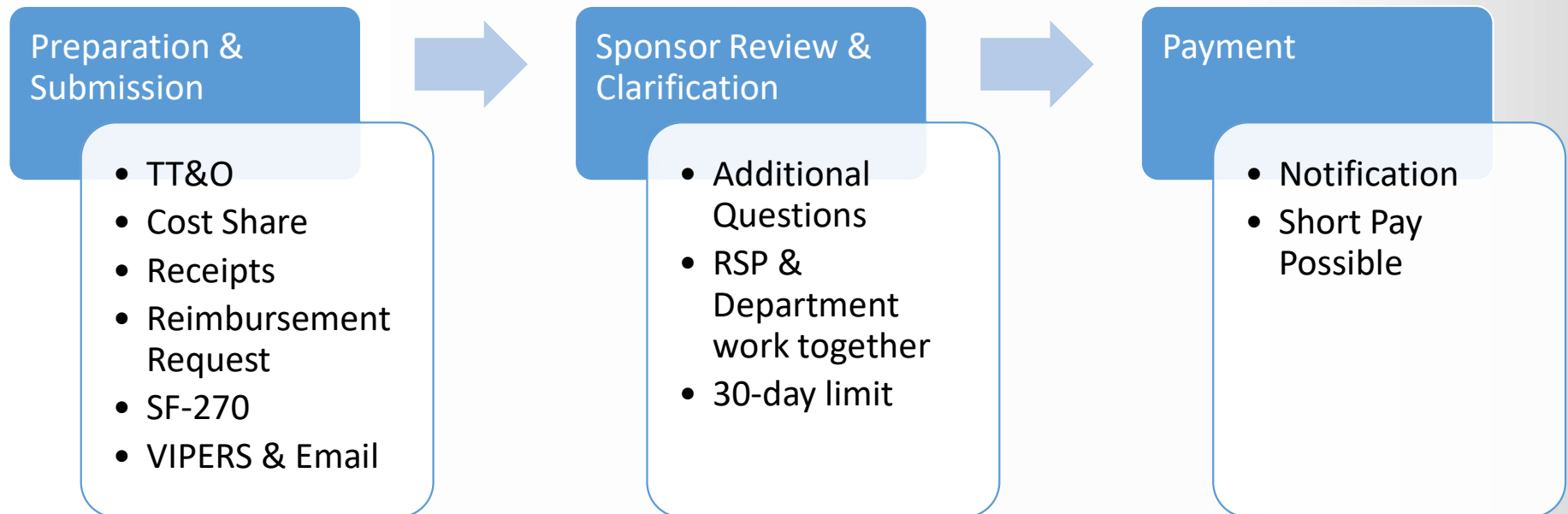
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ARPA-e



# Invoicing Process

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# Supporting Documentation

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- Cost Share Detail
- Transaction Detail
- Subaward Invoices
- Equipment
- Travel (except meal per diems)
- Travel Expense Reports/P-Card Reports
- Expenses over \$500 (supplies, services)
- Reference Index (for large quantities of receipts)

# Reimbursement Request Spreadsheet

DOE Reference No. DE-ARXXXXXXX Invoice Reporting Period Covered: XX/XX/XX-XX/XX/XX UW Reference No. MSNXXXXXX

## TOTAL BUDGET

Total Project Category	Total Project Cost		Expenditures during Invoice Period		Cumulative Expenditures To Date		Remaining Balance
	ARPA-E	Cost Share	ARPA-E	Cost Share	ARPA-E	Cost Share	
a. Personnel			\$ -	\$ -	\$ -	\$ -	\$ -
b. Fringe Benefits			\$ -	\$ -	\$ -	\$ -	\$ -
c. Travel			\$ -	\$ -	\$ -	\$ -	\$ -
d. Equipment			\$ -	\$ -	\$ -	\$ -	\$ -
e. Supplies			\$ -	\$ -	\$ -	\$ -	\$ -
f. Contractual			\$ -	\$ -	\$ -	\$ -	\$ -
g. Construction			\$ -	\$ -	\$ -	\$ -	\$ -
h. Other Direct Charges			\$ -	\$ -	\$ -	\$ -	\$ -
i. Indirect Charges			\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Project Cost</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

## SEPARATE TT&O WORKSHEET

Total Project Category	Total Project Cost		Expenditures during Invoice Period		Cumulative Expenditures To Date		Remaining Balance
	ARPA-E	Cost Share	ARPA-E	Cost Share	ARPA-E	Cost Share	
a. TT&O Personnel			\$ -	\$ -	\$ -	\$ -	\$ -
b. TT&O Fringe Benefits			\$ -	\$ -	\$ -	\$ -	\$ -
c. TT&O Travel			\$ -	\$ -	\$ -	\$ -	\$ -
d. TT&O Equipment			\$ -	\$ -	\$ -	\$ -	\$ -
e. TT&O Supplies			\$ -	\$ -	\$ -	\$ -	\$ -
f. TT&O Contractual			\$ -	\$ -	\$ -	\$ -	\$ -
TT&O Subrecipient			\$ -	\$ -	\$ -	\$ -	\$ -
TT&O FFRDC			\$ -	\$ -	\$ -	\$ -	\$ -
TT&O Vendor			\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total TT&amp;O Contractual</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
g. TT&O Construction			\$ -	\$ -	\$ -	\$ -	\$ -
h. TT&O Other Direct Charges			\$ -	\$ -	\$ -	\$ -	\$ -
i. TT&O Indirect Charges			\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total TT&amp;O Cost</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

# Frequent Issues

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- Travel
- Business Meals
- Unbudgeted Equipment
- Non-US Vendors
- Insufficient Cost Share

# Frequent Issues (cont.)

## Fringe:

- The excel sheet/ledger provided shows the correct fringe total, but it does not show the rates that each individual is using. Please provide a breakdown of the fringe benefits that show who is charging/how much for each person so we can compare the rates and make sure they're in line with the budget  
We are using the federally approved Fringe rates for this period per the attached document. The ledger will indicate the type of appointment and the fringe calculates monthly as a sum for each type of appointment (not per person).

## Supplies:

- Please provide a breakdown of what costs are supplies. We are unable to filter down on the ledger to get a total of \$25,882.64. Please clarify.  
Please see Supplies tab in the Excel file. I notice there is a software purchase in the month of April that UW codes in "Other Expenditures". If this is the problem, I can change that on the next Reimbursement Request to show in supplies instead of ODC and add a note (I can't change on the Ledger).

## ODCS:

- Please provide a breakdown of what costs are ODCS. We are unable to filter down on the ledger to get a total of \$52,373.38. Please clarify.  
Please see ODSC tab in the Excel file.
  - Please also indicate what the \$374.00 in TT&O ODC is for  
This is services for Design of a WHAM logo that was necessary for branding and marketing purposes; commercialization involves attracting and informing stakeholders, including potential suppliers, partners, customers or investors in order to promote and further the development and deployment of WHAM, Task 13. Logo was created by University Marketing, the central marketing and brand office of UW-Madison, which allows for a reasonably priced but solid communication strategy, harnessing the power of the UW-Madison brand.

This individual stayed at the conference recommended hotel at the conference rate. This is permitted under UW Madison travel policy noted above. A copy of the conference hotel page is attached as documentation.

These digitizers are designed and manufactured by a Slovenian company; there are no US made equivalents which offer the speed and resolution required and backs it up with an open software platform. We do not have a manufacturer choice, just a distributor.

# Setting up for Success

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ARPA-E

# Travel

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- Every travel expense is carefully reviewed
  - Purpose
  - Travelers
  - Agenda
  - Lodging Nightly Rates
  - Mileage calculations
- Travel may require prior approval, especially foreign travel
- UW-Travel Policy
  - Conference Hotel / Conference Hotel Alternatives

# Business Meals

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- Attendees List
- Business Purpose
- Remove alcohol and excess tip



# Technology Transfer & Outreach (TT&O)

- Consider using separate project numbers
- Consider F&A

Budget Justification for SF 424A Budget      Award Recipient:      XX/XX/XX V 1.0

**h. Other Direct Costs**

**PLEASE READ!!!**

Applicants must provide and justify proposed costs related to Other Direct Costs for each year of the entire budget period. Other Direct Costs are direct cost items required for the project which do not fit clearly into other categories, and are not included in the indirect pool for which the indirect rate is being applied to this project. Other Direct Costs include Technology Transfer and Outreach (TT&O) activities. Examples of TT&O activities that are allowable under Federal costs principles are provided in Section IV.G.8 of the FOA. Applicants must provide a basis of cost (e.g., vendor quotes, prior purchases of similar or like items, published price list, etc.).

**Note for TT&O Activities:** Every Project Team is required to spend at least 5% of ARPA-E funding on TT&O activities to promote and further the development and deployment of ARPA-E-funded technologies. All budget activities must relate to achieving specific objectives, Technical Milestones and Deliverables outlined in the Statement of Project Objectives. Applicants must list TT&O costs with a clear description of what activities are to take place (e.g. travel to the Annual ARPA-E Innovation Summit, work devoted to a commercialization plan, etc.).

Only TT&O costs that relate to a specific technology funded by ARPA-E will be allowed, if the costs are allowable in accordance with Federal cost principles. For TT&O activities aimed at advancing a portfolio of technologies and/or products owned by the Recipient or Project Partner, only the portion of costs specifically attributable to advancing the ARPA-E funded technology will be reimbursed. Applicants are required to certify in the Full Application that they have met the 5% requirement for TT&O expenditures in their SF-424A and Budget Justification unless they submit an accompanying waiver request. Applicants may seek a waiver of the TT&O requirement in whole or in part by including an explicit request in their Full Application. In their request, Applicants must describe the proposed technology's stage of development (i.e., early-stage or late-stage) with reference to Technology Readiness Levels (TRLs). In addition, Applicants must describe in detail why the TT&O requirement should not be applied to their project or why they are proposing less than the required 5%.

**Note for Patent Costs:** ARPA-E will reimburse up to \$30,000 in expenditures incurred under the funding agreement for costs and fees relating to the filing and prosecution of U.S. patent applications on subject inventions disclosed to ARPA-E and DOE in accordance with Attachment 2 to the funding agreement (<http://arpa-e.energy.gov/FundingAgreements/CooperativeAgreements.aspx>). Prime Recipients may use costs and fees in excess of \$30,000 to meet their cost share obligations under the funding agreement.

ARPA-E will not reimburse any costs and fees relating to the filing and prosecution of foreign patent applications on subject inventions disclosed to ARPA-E and DOE in accordance with Attachment 2 to the funding agreement. However, Prime Recipients may use such costs and fees to meet their cost share obligations. For examples of allowable patent costs, please see Section IV.G.3 of the FOA.

TT&O Totals	
TT&O Personnel	\$ 86,856.00
TT&O Fringe	\$ 29,183.00
TT&O Travel	\$ 68,101.00
TT&O Equipment	\$ -
TT&O Supplies	\$ -
TT&O Other	\$ 15,860.00
TT&O Contractual	\$ -
TT&O Construction	\$ -
<b>TT&amp;O Total</b>	<b>\$ 200,000.00</b>

TT&O Year 1	\$ 101,633.00
TT&O Year 2	\$ 98,367.00
TT&O Year 3	\$ -
TT&O Year 4	\$ -
TT&O Year 5	\$ -

# Subawards

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- Flow-Down Terms and Conditions
  - TT&O Obligations
  - Cost Share
  - Cost Share Invoicing Percentage
  - Documentation
- Reimbursement Request Spreadsheet

# Subawards (cont.)

Invoice Date	Vendor	Memo/Description of Equipment	Amount	Invoice Attached	SK
7/5/22	Harbor Freight Tools	Full Bank Service Cart, Black	\$ 734.43	Yes	
7/5/22	McMaster Carr	Head Screw, HTemp Shrink Tubing	\$ 106.18	Yes	this is an order confirmation, not an invoice
7/8/22	Amazon	Traction Tape	\$ 103.26	Yes	x ok
7/11/22	McMaster Carr	Multipurpose Copper Sheet	\$ 42.48	Yes	billing address the engine, no shipping address, not an invoice
8/30/22	Mouser Electronics	Gauge cable	\$ 111.76	Yes	x ok
7/13/22	Brown Aviation Tool	Starrett Machinist's Scale	\$ 88.75	Yes	this is an order confirmation, not an invoice; conf is for a different \$ amount
7/13/22	Aircraft Spruce and Specialty	A/C Assembly Scraper Kit, Sealant Removal Tool	\$ 181.78	Yes	x
7/31/22	Mathew Brevard	MRI Consulting	\$ 2,500.00	Yes	order confirmation, \$2.95 amount difference ('shipment 2' price)
8/12/22	McMaster Carr	Button Head Drive Screw, Knife Blades	\$ 444.67	Yes	? Can't find invoice
8/16/22	McMaster Carr	Steel Knurled Inserts, Hex Drive Flat Head Screws	\$ 179.10	Yes	x
8/16/22	McMaster Carr	WHAM Control Valve, supplies	\$ 872.62	Yes	x
8/19/22	McMaster Carr	Button/Coil Cell Battery, Superconductive 101 Copper Thick Tube Wall	\$ 142.96	Yes	x
8/22/22	McMaster Carr	WHAM Tube Fitting	\$ 635.86	Yes	x
8/24/22	McMaster-Carr	Installation Tool for M16 Thread Size	\$ 65.90	Yes	x
8/25/22	Digi Key Corp	Probe Temp "4" Insulated Lead	\$ 158.08	Yes	x
8/27/22	Misumi USA	Round DBL Bearings & Housings, Rotary Shafts	\$ 493.68	Yes	Order Confirmation
8/29/22	McMaster-Carr	Aluminum Shim Stock Roll Set	\$ 186.07	Yes	x
8/30/22	McMaster-Carr	Tube Fitting for Air, Long Joiner Clamp	\$ 101.52	Yes	x
8/31/22	McMaster Carr	Screws and Tube Fitting	\$ 284.36	Yes	x
9/8/22	McMaster Carr	Alloy Steel Bar	\$ 182.33	Yes	order confirmation
9/14/22	Digi Key Corp	Conn D-Sub Plug	\$ 284.89	Yes	PO Acknowledgement
9/15/22	Digi Key Corp	Ammeter 0-50A LCD Panel Mount	\$ 89.13	Yes	PO Acknowledgement
9/16/22	ASEF/ASC	ASC Conference	\$ 1,340.00	Yes	ASC registration
9/15/22	ASC	ASC Conference	\$ 1,340.00	Yes	ASC registration
9/19/22	Fibre Glast	Stretchlon 200, Vacuum Coupling	\$ 203.85	Yes	Order Confirmation
9/20/22	Digi Key Corp	Lacing Tape Natural 25lbs	\$ 41.02	Yes	PO Acknowledgement
9/23/22	Digi Key Corp	Conn DSub Adapter	\$ 73.67	Yes	PO Acknowledgement
9/24/22	ASC	ASC Conference	\$ 1,715.00	Yes	ASC registration
10/4/22	McMaster-Carr	Alloy Steel Socket/Screws	\$ 75.16	Yes	x

# Resources

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## DARPA ([www.darpa.mil](http://www.darpa.mil))

- Information for Universities:  
<https://www.darpa.mil/work-with-us/for-universities>
- Contract Management:  
<https://www.darpa.mil/work-with-us/contract-management>
- DARPA Agency Specific Terms and Conditions:  
[www.darpa.mil/attachments/ExhibitGrantsandCooperativeAgreements03-29-21v2.pdf](http://www.darpa.mil/attachments/ExhibitGrantsandCooperativeAgreements03-29-21v2.pdf)
- Proposers Days

## ARPA-e ([arpa-e.energy.gov](http://arpa-e.energy.gov))

- FAQs - General Questions:  
<https://arpa-e.energy.gov/faqs/general-questions>
- Project Guidance: <https://arpa-e.energy.gov/technologies/project-guidance>
- Technology-to-Market Resources:  
<https://arpa-e.energy.gov/technology-to-market/resources>

# Questions?

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Chelsie Propst – [chelsie.propst@wisc.edu](mailto:chelsie.propst@wisc.edu)

Sylvia Swift Kmiec – [sylvia.kmiec@wisc.edu](mailto:sylvia.kmiec@wisc.edu)

Andrew Merki – [Andrew.merki@rsp.wisc.edu](mailto:Andrew.merki@rsp.wisc.edu)