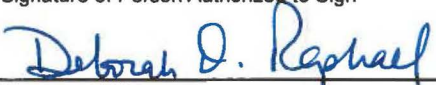



ASSISTANCE AGREEMENT

1. Award No. DE-EE0007599		2. Modification No.		3. Effective Date 10/01/2016		4. CFDA No. 81.087		
5. Awarded To SAN FRANCISCO, CITY & COUNTY OF Attn: MELSON D MANGROBANG 1 DR. CARLTON B. GOODLETT PL ROOM 300 SAN FRANCISCO CA 941024694				6. Sponsoring Office Energy Effcy & Renewable Energy			7. Period of Performance 10/01/2016 through 09/30/2017	
8. Type of Agreement <input type="checkbox"/> Grant <input checked="" type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Other		9. Authority 109-58 Energy Policy Act 2005			10. Purchase Request or Funding Document No. See Schedule			
11. Remittance Address SAN FRANCISCO, CITY & COUNTY OF Attn: TREASURER'S OFFICE 1 DR CARLTON B. GOODLETT PLACE SAN FRANCISCO CA 941024694				12. Total Amount Govt. Share: \$249,970.00 Cost Share : \$250,000.00 Total : \$499,970.00		13. Funds Obligated This action: \$249,970.00 Total : \$249,970.00		
14. Principal Investigator See Page 2		15. Program Manager Gregory J. Kleen Phone: 240-562-1672			16. Administrator Golden Field Office U.S. Department of Energy Golden Field Office 15013 Denver West Parkway Golden CO 80401			
17. Submit Payment Requests To		18. Paying Office OR for Golden U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 6017 Oak Ridge TN 37831				19. Submit Reports To See Attachment 2		
20. Accounting and Appropriation Data HT0500000, Safety, Codes & Standards								
21. Research Title and/or Description of Project ADVANCING FUEL CELL ELECTRIC VEHICLES IN SAN FRANCISCO AND BEYOND								
For the Recipient				For the United States of America				
22. Signature of Person Authorized to Sign 				25. Signature of Grants/Agreements Officer 				
23. Name and Title Deborah O. Raphael Director, SF Department of the Environment		24. Date Signed 10/13/16		26. Name of Officer Laura Merrick		27. Date Signed 09/23/2016		

CONTINUATION SHEET		REFERENCE NO. OF DOCUMENT BEING CONTINUED DE-EE0007599		PAGE 2 OF 3	
NAME OF OFFEROR OR CONTRACTOR SAN FRANCISCO, CITY & COUNTY OF					
ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>DUNS Number: 070384255</p> <p>In addition to this Assistance Agreement, this award consists of the items listed on the Cover Page of the Special Terms and Conditions.</p> <p>The Project Period for this award is 10/01/2016 through 09/30/2018 consisting of the following Budget Periods:</p> <p>Budget Period 1: 10/01/2016 to 09/30/2017 Budget Period 2: 10/01/2017 to 09/30/2018</p> <p>In Block 7 of the Assistance Agreement, the Period of Performance reflects the beginning of the Project Period through the end of the current Budget Period.</p> <p>Additional future DOE funding and additional budget periods are not contemplated under this award. Funding for all awards and future budget periods is contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority.</p> <p>The Special Terms and Conditions for this award contain specific funding restrictions. Please review the applicable terms for procedures required to lift the restrictions.</p> <p>DOE Award Administrator: Laura Gonzalez E-mail: laura.gonzalez@ee.doe.gov Phone: 240-562-1310</p> <p>DOE Project Officer: Gregory Kleen E-mail: Gregory.kleen@ee.doe.gov Phone: 240-562-1672</p> <p>Recipient Business Officer: Joseph Salem E-mail: joseph.salem@sfgov.org Phone: 415-355-3700</p> <p>Recipient Principal Investigator: Jessie Denver E-mail: Jessie.denver@sfgov.org Phone: 415-355-3720</p> <p>"Electronic signature or signatures as used in this document means a method of signing an electronic message that-- (A) Identifies and authenticates a particular person as the source of the electronic message;</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-EE0007599

PAGE OF
3 3

NAME OF OFFEROR OR CONTRACTOR

SAN FRANCISCO, CITY & COUNTY OF

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>(B) Indicates such person's approval of the information contained in the electronic message; and,</p> <p>(C) Submission via FedConnect constitutes electronically signed documents."</p> <p>ASAP: YES Extent Competed: COMPETED Davis-Bacon Act: NO</p> <p>Fund: 05450 Appr Year: 2016 Allottee: 31 Report Entity: 200835 Object Class: 41999 Program: 1009195 Project: 0000000 WFO: 0000000 Local Use: 0000000</p>				

STATEMENT OF PROJECT OBJECTIVES

City & County of San Francisco

Advancing Fuel Cell Electric Vehicles in San Francisco and Beyond

A. PROJECT OBJECTIVES

This project aims to harmonize local regulations and building codes to ease the siting and construction of hydrogen fueling stations for zero-emission Fuel Cell Electric Vehicles (FCEVs). This will be accomplished through the following objectives:

1. Increase community awareness through educational opportunities on the viability, safety and availability of hydrogen fuels and fuel cell electric vehicles (FCEV) in the Bay Area.
2. Update and standardize best practices in permitting and inspection of hydrogen fueling infrastructure.
3. Develop and implement a “group-buy” program that reduces the cost and complexity of FCEVs to the community. This includes enrolling members of Business Council on Climate Change (BC3 - employer organizations) in a zero emission vehicle (ZEV) “group-buy” program that includes FCEVs.

B. TECHNICAL SCOPE SUMMARY

Budget Period 1: First, project startup meetings and internal communications will be established. Initial community stakeholders (e.g., building code, public safety, and planning officials) will be introduced and interfaced with original equipment manufacturers (OEMs), hydrogen safety experts, and station developers. This collaborative working group will provide input for training workshops for authorities having jurisdiction (AHJ) and permitting officials that include areas of planning, building code, safety and fire departments, city council members, and sustainability.

Next, specific guidelines and training for fire departments and emergency responders pertaining to hydrogen fueling stations will be created, along with train-the-trainer workshops. Furthermore, an education campaign supported by the Governor’s Office of Business and Economic Development and BKi, administrators of the California Fuel Cell Partnership (CaFCP) will create an industry overview briefing for local officials, including city council members, department directors, legislators, and city officials. The briefing will cover topics such as vehicle technology, basic hydrogen education/familiarization, and infrastructure information. The City will leverage work conducted through a California Energy Commission (CEC) Alternative Fuel Vehicle Readiness Planning grant to support these tasks.

Plans will also be created to streamline the existing approval process for station development. With this in mind, the California Energy Commission (CEC) Hydrogen Fuel Cell Readiness Planning grant will be leveraged to identify future fueling station development in San Francisco, at which the streamlined process could be implemented.

BC3 members will be engaged, and provided with a “group-buy” program opportunity for ZEVs. The program will require a developed procurement process and web tool to enable participation in program, along with outreach activities to the target audience (i.e., employees of participating employer organizations).

Budget Period 2: Pursue further station development in San Francisco, along with a second ZEV/FCEV group-buy program with an estimated 5 additional organizations. There will be increased education and outreach activities such as hosting webinars on project progress for AHJs nationwide to highlight Budget Period 1 accomplishments. In addition, community events will be organized to inform residents on the viability, safety and availability of hydrogen fueling infrastructure in the Bay Area.

Finally, project findings and data will be gathered, analyzed and reported on in addition to 3 case studies that will be developed for analysis. These case studies will highlight outcomes of group procurement campaigns; education, outreach and training events; and steps taken to streamline station development processes. We will host project summary webinars and present at conferences to highlight project progress and outcomes. A final report will be drafted and submitted to the U.S. Department of Energy (DOE).

C. TASKS TO BE PERFORMED

BUDGET PERIOD 1

Project Development and Implementation

Task 1: Project Communications (Q1-Q4)

Task Summary: Set up contracts, set up and implement communication plan and provide an outside portal for interested parties. Team will conduct bi-weekly phone calls for BKi on behalf of the CaFCP and SFE coordination. Others may join depending on the agenda.

Subtask 1.1 Set up and sign contracts and agreements between partners. (Q1)

Subtask 1.2 Hold kick-off meeting with project partners and DOE to review tasks, roles, responsibilities, deadlines. Meeting scheduled by SFE and will include BKi on behalf of the CaFCP, BC3 and the San Francisco Bay Area Clean Cities Coalition. Disseminate meeting minutes via file sharing and update the Clean Cities Coalition webpage with details on the project. (Q1)

Subtask 1.3 Conduct ongoing stakeholder/partner meetings. Develop and disseminate monthly e-newsletter highlighting project progress and achievements; post to the San Francisco Clean Cities Coalition website. (Q2-Q4)

Task 2: Develop and Implement Training Plan (Q1-Q4)

Task Summary: Determine requirements for stakeholder training, develop training materials and assemble stakeholder list to be used in the coordination of events.

Subtask 2.1 Develop target stakeholder list (ex. emergency responders, permitting / code officials, local government officials). Interview various stakeholders and develop agenda for training events based on feedback. Determine specific training materials needed for each target audience. (Q1)

Subtask 2.2 Identify dates for training events, schedule venue, and send invitations to stakeholder groups. Conduct training events. (Q2-4)

Task 3: Streamline Permitting Process for Station Development (Q1-Q4)

Task Summary: Document existing municipal permitting and inspection processes and create streamlined permitting processes throughout the Bay Area.

Subtask 3.1 Understand and document AHJ permitting and inspection processes throughout the Bay Area Clean Cities Coalition for gasoline or CNG stations and for completing the inspection process, including contact information for primary staff in the Planning Department, the Department of Building Inspection and the Fire Department. (Q2-3)

Subtask 3.2 Create an expedited permitting process in San Francisco for hydrogen stations that can be replicated. Create instruction sheets to guide developers and inspectors through the key requirements of hydrogen station development including but not limited to submission of drawings, completion of building permit application, identification of whether location may require neighborhood notification. (Q4)

Subtask 3.3 Test the permitting and inspection process with key stakeholders including local government officials (e.g. permitting staff, inspectors, and first responders) to identify areas in need of improvement. (Q4)

Task 4: Perform Zoning Analyses in San Francisco (Q3-Q4)

Task Summary: Permits are required in San Francisco to operate businesses and to perform construction activity. The Planning Department reviews most applications for these permits in order to ensure that what is being proposed complies with the zoning regulations (e.g. The Planning Code). Every project requires an applicant to have information about a property's Zoning Use District. Knowing the Zoning Use District for varying areas of the City as it applies to hydrogen fueling station development will help San Francisco identify what's allowed in each zone and the specific limits that may apply to project development.

Subtask 4.1 Examine land use mix and determine in which zoning classifications, if any, to prioritize for explicit permission in the zoning ordinance for hydrogen stations. (Q3)

Subtask 4.2 Leverage CEC Hydrogen Readiness Planning grant, identify options for station development in San Francisco Collaborate with station owner, developers, fuel providers and applicable City departments. (Q1-Q3)

Subtask 4.3 Consider hydrogen fueling as an option for density bonus when negotiating with developers interested in higher density construction on sites than zoning code normally allows. Density bonuses are granted for projects in which the developer agrees to include a certain

number of affordable housing units. Essentially, for every one unit of affordable housing built, a jurisdiction allows the construction of a greater number of market rate units than would be allowed otherwise. Extending a hydrogen fueling infrastructure density bonus could provide more residents with access to zero emission vehicle options. (Q4)

Task 5: Develop and Implement Community Engagement Plan (Q1-Q4)

Task Summary: Increase community awareness through educational opportunities on the viability, safety and availability of hydrogen fuel and FCEVs in the Bay Area.

Subtask 5.1 Work with local companies to create a display at the Exploratorium, San Francisco's popular hands-on science museum, to demystify hydrogen and fuel cells. Display to open in conjunction with National Hydrogen Day. (Q3-Q4)

Subtask 5.2 Integrate hands on activities around ZEVs and hydrogen fueling stations into Earth Day and other regional events. Work with project partners to update organizational websites to reflect current state of ZEV/FCEVs. (Q1-Q4)

Subtask 5.3 Develop and launch workshop / webinar series in collaboration with BKi on behalf of the CaFCP and the Clean Cities Coalition for local government officials and the general public. (Q2-Q4)

Task 6: Develop and Implement ZEV/FCEV Group-Buy Program(s) (Q2-Q8)

Task Summary: Drive sales volume through a group purchase model that will create economies of scale while reducing complexity of decision making for consumers. Promote these through coordinated activities.

Subtask 6.1 Identify and confirm BC3 member participants; develop request for proposals (RFP). (Q2)

Subtask 6.2 Launch program website to enable registration in group-buy. Develop collateral materials and provide to participating BC3 members two times per month during group-buy campaign. (Q3-Q4)

Subtask 6.3 Organize evaluation committee to review proposals submitted by OEMs. Select OEMs / dealers; negotiate discount pricing. BC3 will directly contract with dealers to ensure pricing and vehicle options. (Q3)

Subtask 6.4 Launch program, respond to participant questions, conduct workshops and webinars, and facilitate leads to selected dealers. Prepare case study on group-buy results. (Q3-Q4)

Task 7: Support CEC funding applications for hydrogen station development (Q1-Q4)

Task Summary: Support station developer(s) funding applications to the State of California for deployment of hydrogen refueling solutions in the City and County of San Francisco.

Subtask 7.1 Coordinate with station developer(s) awarded CEC funding for project implementation to ensure they are working with they are working with the appropriate City departments on project permitting / approval.

BUDGET PERIOD 2

Project Implementation Scaled, Evaluate, and Disseminate

Task 8: Ongoing Implementation of Training Plan (Q5-Q7)

Task Summary: Deliver a comprehensive training package that will engage local governments to help them understand the benefits of hydrogen and FCEVs in their communities, understand hydrogen safety and longevity in the U.S., and ensure first responders are properly trained in the Bay Area.

Subtask 8.1 Identify dates and venues for training events, confirm and schedule. Invite stakeholders to events. Conduct training events, integrating workforce development needs on FCEV repairs. (Q5-Q7)

Subtask 8.2 Draft summaries for U.S. DOE review on training event outcomes (Q8)

Task 9: Community Engagement Conducted (Q5-Q8)

Task Summary: A lack of familiarity with a technology can raise questions about safety and impacts on local neighborhoods. This can stall project implementation due to concerns that range from safety, to increased traffic, to noise. By engaging the community and stakeholders early, the City can reduce soft costs and complexity tied to the deployment of hydrogen stations and FCEVs.

Subtask 9.1 Assist identified potential station owner(s), and hydrogen industry partners on siting of fueling station in San Francisco. (Q5-Q7)

Subtask 9.2 Conduct workshop/webinar series in collaboration with BKi on behalf of the CaFCP and Clean Cities Coalition for local government officials and the general public in areas where station development will occur. (Q5-Q8)

Subtask 9.3 Work with partners to update organizational websites to reflect current state of ZNE/FCEVs. Integrate hands on activities into Earth Day events. (Q5-Q8)

Task 10: Hydrogen Fueling Station Development (Q5-Q8)

Task Summary: In order for market transformation of FCEVs to be realized, customers need to feel confident that a supporting infrastructure for refueling is in place. Deploying hydrogen fueling stations will require cities to streamline permitting and inspection requirements to ensure soft cost reductions.

Subtask 10.1 Implement streamlined permitting process in San Francisco and evaluate implementation of streamlined permitting process in 5 Bay Area cities. (Q5-Q7)

Task 11: Replicate and Expand ZEV Group-Buy Program (Q5-Q8)

Task Summary: Engage additional employers, local governments and other affinity groups in the program, especially those where hydrogen fueling station development has been completed.

Subtask 11.1 Confirm BC3 member participants; enlist a minimum of 5 new organizations including Clean Cities Coalition local governments. Launch program website to enable registration in group-buy. Develop collateral materials and provide to participating BC3 members two times per month during group-buy campaign. (Q5)

Subtask 11.2 Organize evaluation committee to review proposals submitted by OEMs. Select OEMs / dealers; negotiate discount pricing. BC3 will directly contract with dealers to ensure pricing and vehicle options. (Q5)

Subtask 11.3 Launch program, respond to participant questions, conduct workshops and webinars, and facilitate leads to selected dealers. (Q5-Q6)

Task 12: Reporting and Dissemination (Q5-Q8)

Task Summary: Monitor cost and schedule performance and reports. Ensure proper and timely execution of tasks and review all deliverables before submittal. Monitor weekly progress, including the work of project partners. Prioritize project resources to meet goals and objectives, maximize stakeholder buy-in. Share best practices and lessons learned broadly through various outlets.

Subtask 12.1 Prepare three case studies on training, community engagement; completed group buy programs; and streamlined permitting process for hydrogen station development. Disseminate reports to stakeholders & networks. (Q5-Q8)

Subtask 12.2 Participate in U.S. DOE network calls, webinars, and conferences. Prepare quarterly narrative and financial reports. (Q1-Q8)

Subtask 12.3 Present at least 3 national, state, regional and local events. (Q4-Q8)

D. PROJECT MANAGEMENT AND REPORTING (Deliverables)

1. List of stakeholders for each stage of the project.
2. Outreach plan, training materials, presentations, e-newsletters; develop 3 case studies
3. List of BC3 employers engaged in group-buy; report on outcome including lessons learned.
4. List of potential sites for station development in San Francisco.
5. Report on permitting and inspection best practices.
6. Overall report on project process, issues, and results.
7. Fulfill all reporting requirements as prescribed by the Federal Assistance Reporting Checklist (FARC)

Milestone Summary Table					
Recipient Name:		City and County of San Francisco – Department of the Environment			
Project Title:		Advancing Fuel Cell Electric Vehicles in San Francisco and Beyond			
Task #	Task or Subtask Title	Milestone or Go/No-Go	Milestone Description (Go/No-Go Decision Criteria)	Milestone Verification Process (What, How, Who, Where)	Quarters from Project Start
1.1	Set up and sign contracts and agreements between partners	Milestone	NA	City to ensure agreements with stakeholders (e.g., U.S. DOE / all subcontractors) are in place.	Q1
2.2	Training event list	Milestone	NA	City and BKi to identify dates and venues for training events (first responders, permitting officials, inspectors); confirm and schedule events. City to provide a description of the training events for U.S. DOE review.	Q2
3.1	Station Development: Document Permitting Process	Milestone	NA	City to document AHJ permitting / inspection processes for gasoline and/or CNG stations. Provide report and documentation to U.S. DOE that staff in the Planning, Building Inspection and Fire Departments were interviewed.	Q3
6.4	Develop and implement ZEV/FCEV group-buy program	Go/No Go	Launch program Respond to participant questions Conduct workshops and webinars Facilitate leads to selected auto dealers	BC3: engage 20 affinity groups BC3: enroll a minimum of 300 interested participants (residents/consumers). Hold a minimum of 10-15 workshops / webinars.	Q4
9.2	Develop educational workshop / webinar series for local government officials and general public	Milestone	NA	City to identify 2-5 target communities and conduct education / outreach via workshops.	Q5
10.1	Permitting Process	Milestone	NA	City to work with BKi to create and implement an expedited permitting process. City to develop case study and submit to DOE in Q8.	Q6
9	Community Engagement	Milestone		Memo to DOE	Q7
12	Reporting and Dissemination	Milestone	NA	City to present at local, state and national conferences. City to develop 3 case studies on lessons learned.	Q8

E. COST SHARE

CEC Alternative Fuel Readiness Planning Grant: Scope of Work (ARV 13 053)

Technical Task 2 - INVENTORY AND ASSESSMENT

The goal of this task is to develop a region-wide inventory and assessment of Alternative Fuel Vehicles (AFV) and Alternative Fueling Infrastructure (AFI) utilization. The Recipient shall:

- Survey current AFV trends including biofuels, hydrogen and electric sectors.
- Survey municipal and private fleet operators regarding current fleet inventories and prospective fleet procurement of AFVs.
- Survey future AFV trends from all vehicle and user sectors.
- Develop regional projections of consumer adoption of AFV types based on a literature review of historic data on AFV sales in the region and government and industry projections of future sales per each AFV type.
- Consult with AFV stakeholders and partner entities on current and future AFV trends, and challenges and opportunities to accelerate AFV and AFI deployment. Partners to be consulted include the California Center for Sustainable Energy, California PEV Collaborative, California Fuel Cell Collaborative, California Natural Gas Vehicle Coalition, the California Biodiesel Alliance, and regional Clean Cities Coalitions, among others.
- Prepare and submit a Task 2 Report based on the above surveys, consultations, and projections which identifies effective, regionally actionable strategies to accelerate deployment of economically and environmentally sustainable AFVs.

Technical Task 3 - AFV READINESS TASK FORCE

The goal of this task is to convene an AFV Readiness Task Force. The AFV Readiness Task Force is comprised of key stakeholders in the project region that will provide input and guidance on the development of the Plan. The Recipient shall:

- Recruit diverse stakeholders to serve on the AFV Readiness Task Force.
- Prepare and conduct eight (8) AFV Readiness Task Force meetings.
- Prepare and distribute publicly available AFV Readiness Task Force meeting notices, schedules, agendas, and meeting summaries.
- Prepare and submit a list of AFV Readiness Task Force members and affiliations.
- Incorporate AFV Readiness Task Force meeting notices, agendas, and summaries in Monthly Progress Reports.

Technical Task 4 - BEST PRACTICES DEVELOPMENT

The goal of this task is to identify best practices in the areas of AFV and AFI policy, finance, deployment, and marketing and outreach. Best practices will be incorporated into the Alternative Fuel Readiness Plan (Plan) and used in communications with stakeholders. The Recipient shall:

- Identify regional, state, national, and international best practices and incorporate in Monthly Progress Reports.
- Incorporate best practices into the Plan and related documents and initiatives.
- Utilize Task 2 Report to inform recommendations on AFV and AFI readiness policies and incentives, effective outreach, education, and training activities.
- Draft best practices and recommendations on AFV and AFI readiness policies and incentives development; and on effective outreach, education, and training activities

Technical Task 5 - TRAINING AND OUTREACH

The goal of this task is to provide training and outreach to stakeholders that will impact increased AF awareness, usage, and vehicle adoption. The Recipient shall:

- Incorporate Task 4 best practices findings into training and outreach initiatives.
- Develop training presentations and materials for fleet operators, city and transportation planners, and city and county decision makers regarding AFI and AFVs.
- Conduct one training session per targeted group (fleet operators, planners, and decision makers) for a total of four (4) trainings.
- Develop marketing and outreach plan for public and private fleet owners and operators, employers, local governments, and other key market groups.
- Implement marketing and outreach plan throughout the region utilizing print and electronic media, social media, targeted community events, workplaces, and fleet operator meetings and events.
- Conduct two (2) consumer-oriented "AFV 101" workshops (in addition to the fleet focused training activities described above.) AFV 101 events will be led by the San Francisco Clean Cities Coalition and will last approximately three hours each, and will address the full spectrum of AFV and AFI issues, including the types of AFVs and alternative fuels now in the marketplace and forthcoming soon; the operating characteristics and advantages of alternative fuel types; the economics of AFV and AFI ownership; fueling infrastructure; and safety and environmental risks and benefits. These workshops will target the general public (not fleet operators).
- Conduct two (2) Green Vehicle shows (AltCar Expos) with AFV's in cooperation with the Bay Area Air Quality Management District and other stakeholders.
- Conduct two (2) alternative fuel ride and drive events enabling consumers and fleet operators to experience the benefits and operating capabilities of AFVs.
- Prepare and submit a Task 5 Report summarizing the outcomes of tasks conducted.

Technical Task 6 - ALTERNATIVE FUELS READINESS PLAN

The goal of this task is to create the Plan based in part on activities conducted in Tasks 2-5. The Recipient shall:

- Prepare and submit an outline of the Plan.
- Prepare and submit a Draft Plan with all elements required under the Solicitation and specified in Recipient's original application under the Solicitation, including references to ongoing data collection and analysis elements.
- Make the Draft Plan available for public review and comment.
- Address public comments to the Draft Plan.
- Present Draft Plan to the City's Chief Administrative Officer.
- Prepare and submit a Final Plan.
- Publish accepted Final Plan on the SF Department of Environment website.

CEC Hydrogen Fueling and FCEV Readiness Planning Grant: Scope of Work **(ARV 14 043)**

Technical Task 2 - SAN FRANCISCO MUNICIPAL FLEET PROCUREMENT ASSESSMENT

The goal of this task is to provide a detailed assessment of the potential for introducing FCEVs into San Francisco's municipal fleet, taking into account fleet vehicle procurement policies,

applicable incentive programs, potential vehicle usage patterns/duty cycles, potential vehicle fueling arrangements, and the availability of early market FCEVs. The Recipient shall:

- Assess potential for FCEV adoption in San Francisco's municipal fleet including addressing the following questions:
 - What are procurement policies and procedures as they relate to FCEV procurement?
 - What are current and projected leasing/selling prices for commercial FCEVs and how do these comport with procurement policies?
 - What are vehicle usage patterns and duty cycles?
 - What proximity of vehicle fueling station to fleet location is required? (if not directly co-located)
- Identify the nature of next-steps for inclusion of FCEVs in San Francisco fleets (e.g., minor modifications to procurement policies, etc.) and assess what additional partners can/should be engaged in next steps.
- Identify how municipal fleet FCEV adoption can be studied from "project inception" onward to provide learning outputs. Key questions include:
 - What data are fleet managers able/willing to provide?
 - What potential findings/lessons can be communicated to other potential fleet adopters and through what mechanisms?
 - Any issues/obstacles with surveying drivers about driving/refueling?

Deliverables:

- Assessment and analysis documentation for inclusion in project Final Report of the potential for FCEV adoption in San Francisco's municipal fleet.
- Identification of next steps for fleet procurement, documented for inclusion in Final Report.

Technical Task 3 - HYDROGEN FUELING SITE READINESS ASSESSMENT FOR SAN FRANCISCO MUNICIPAL FLEET PROCUREMENT OF FCEVS

The goal of this task is to identify and evaluate municipally controlled or otherwise accessible sites for future hydrogen refueling station locations in San Francisco. Sites shall be evaluated based on their suitability to comply with applicable codes and standards, and statewide infrastructure planning efforts. These include the CaFCP Roadmap (2012) and recent hydrogen development infrastructure program opportunity notices ("PONs") issued by the Energy Commission. An additional goal of this task is to examine the latest codes and standards for hydrogen station siting in the context of the "promising" sites identified, and to initiate communication with local "authorities having jurisdiction" (AHJs) to communicate the potential for a hydrogen station project and to begin to receive feedback from the AHJs on any additional considerations that may arise. This is important because AHJs have considerable ability to interpret codes and standards based on local conditions and their own special concerns and priorities. The Recipient shall:

- Assess sites for hydrogen refueling stations on land controlled by the City of San Francisco and other potential sites with potential to support hydrogen fuel dispensing of various capacities (e.g. 50-400 kg/day), and in relation to current National Fire Protection Association (NFPA) codes and standards, California Environmental Quality Act (CEQA) issues, and additional site-level concerns.

- Identify "possible" and "probable" locations based on initial assessment of site readiness criteria.
- Identify initial issues that may need to be addressed for each identified site.
- Assess different vendor options, including cost implications and ongoing operations/maintenance issues.
- Assess hydrogen production/delivery options for hydrogen fuel to be supplied to potential stations identified. Additional considerations that shall be included:
 - What are the incremental costs and environmental benefits of 33%vs. 100% renewable supply, from e.g. wastewater treatment plant digester gas?
 - What other innovative options are becoming available for "green" hydrogen supply that might be explored, if not initially as a transition strategy?
- Identify the currently applicable set of U.S. and California hydrogen and fuel cell codes and standards applicable to San Francisco (e.g. NFPA, Cal/OSHA, etc.).
- Compile guidance for local San Francisco AHJs based on recently developed tools (e.g., Pacific Northwest National Laboratory's "H2T00Ls" portal).
- Make initial contact with the local "authority having jurisdiction" to understand any issues related to potential local interpretation of codes and standards.
- Summarize and provide an early assessment of potential permitting issues, considerations, concerns and/or impediments for San Francisco sites identified in the Task.

Deliverables:

- Report on possible/probable sites for hydrogen refueling station implementation through a future development effort with report section to be included in project Final Report.
- Document for Final Report the capabilities of various vendor groups to supply the hardware and support needed to successfully site, permit, develop, commission, operate, and maintain a hydrogen fueling facility in central San Francisco.
- Document analysis for Final Report of various hydrogen supply options that are possible for San Francisco sites.
- A summary compilation of the applicable codes and standards for hydrogen station implementation in San Francisco for inclusion in the Final Report.
- A summary of additional tools and guidance resources for hydrogen station siting and permitting for inclusion in the Final Report.
- A summary of key issues, including but not limited to safety considerations and other issues raised by the relevant AHJs and other officials shall be summarized for inclusion in the Final Report, with suggested "next step" actions to address identified issues/barriers.
- An overall summary of potential hydrogen station site permitting considerations for the identified sites, for inclusion in the project Final Report

Attachment 2, Reporting Checklist

EERE 355: Federal Assistance Reporting Checklist (FARC)

1. Award Number and Attachment Number: DE-EE0007599.0000		2. Program/Project Title: Advancing Fuel Cell Vehicles in San Francisco and Beyond	
3. Recipient: City and County of San Francisco - Dept. of the Environment			
4. Reporting Requirements (see Attached "EERE Reporting Instructions"):	Frequency	Reporting Submission Links (See attached "EERE Reporting Instructions" for report templates link and complete submission instructions.)	
I. PROJECT MANAGEMENT REPORTING <input type="checkbox"/> A. Research Performance Progress Report (RPPR) (RD&D Projects) <input checked="" type="checkbox"/> B. Progress Report (Non-RD&D Projects) <input checked="" type="checkbox"/> C. Financial Report (SF-425) <input type="checkbox"/> D. Special Status Report <input type="checkbox"/> E. Other (see Special Instructions)			
II. SCIENTIFIC/TECHNICAL REPORTING <input type="checkbox"/> A. Journal Article-Accepted Manuscript <input type="checkbox"/> B. Scientific/Technical Conference Paper/Presentation/Proceeding <input type="checkbox"/> C. Scientific/Technical Software & Manual <input type="checkbox"/> D. Scientific/Technical Dataset <input type="checkbox"/> E. Other STI (Dissertation/Thesis, see Special Instructions)			
III. CLOSEOUT REPORTING <input checked="" type="checkbox"/> A. Final Scientific/Technical Report <input type="checkbox"/> B. Invention Certification (DOE F 2050.11) <input type="checkbox"/> C. Final Property Report (SF-428 & SF428B) <input type="checkbox"/> D. Software Deliverable Submission <input type="checkbox"/> E. Other (see Special Instructions)			
IV. OTHER REPORTING <input type="checkbox"/> A. Intellectual Property Reporting <input type="checkbox"/> B. Invention Utilization Report (EERE 356) <input type="checkbox"/> C. U.S. Manufacturing Report (EERE 358) <input type="checkbox"/> D. Project Management Plan (PMP) <input checked="" type="checkbox"/> E. Annual Incurred Cost Proposal <input type="checkbox"/> F. Annual Audit of For-Profit Recipients <input type="checkbox"/> G. Annual Property Inventory (SF-428A) <input type="checkbox"/> H. Reporting Addendum (EERE 359) <input checked="" type="checkbox"/> I. Other (see Special Instructions)			
	Q FQ	A. https://www.eere-pmc.energy.gov/SubmitReports.aspx B. https://www.eere-pmc.energy.gov/SubmitReports.aspx C. https://www.eere-pmc.energy.gov/SubmitReports.aspx D. https://www.eere-pmc.energy.gov/SubmitReports.aspx E. https://www.eere-pmc.energy.gov/SubmitReports.aspx	
	F	A. http://www.osti.gov/mlink-2413 B. http://www.osti.gov/mlink-2413 C. http://www.osti.gov/estsc/241-4.jsp D. http://www.osti.gov/mlink/241-6 E. http://www.osti.gov/mlink-2413	
	Y180	A. http://www.iEdison.gov/ B. https://www.eere-pmc.energy.gov/SubmitReports.aspx C. https://www.eere-pmc.energy.gov/SubmitReports.aspx D. https://www.eere-pmc.energy.gov/SubmitReports.aspx E. See section IV. E for instructions and due dates F. See section IV. F for instructions and due dates G. https://www.eere-pmc.energy.gov/SubmitReports.aspx H. https://www.eere-pmc.energy.gov/SubmitReports.aspx I. https://www.eere-pmc.energy.gov/SubmitReports.aspx	
	O	A. https://www.eere-pmc.energy.gov/SubmitReports.aspx	

FREQUENCY CODES AND DUE DATES:

A - Within (5) calendar days after the event or as specified.

F - Final; within 90 calendar days after expiration or termination of the award.

Y - Yearly; within 90 calendar days after the end of the annual reporting period.

S - Semiannually; within 30 days after the end of the reporting period.

Q - Quarterly; within 30 calendar days after end of the quarterly reporting period.

Y180 - Yearly; within 180 calendar days after close of the recipient's fiscal year.

O - Other: See instructions for further details.

5. EERE Special Instructions:

OTHER REPORTING

1) The Recipient is required to submit input to the DOE Fuel Cell Technologies Office's Annual Progress Report. Such input will include technical progress, accomplishments, and results. The timing and formatting of this reporting may vary slightly from year to year, the Recipient will receive specific instructions from DOE (or designated contractor) for this activity. 2) The Recipient is required to present at the Fuel Cell Technologies Program's Annual Merit Review. DOE may elect not to request a presentation every year, the Recipient will receive specific instructions from DOE (or designated contractor) for this activity.

EERE Reporting Instructions*******

Throughout award negotiations and the performance of the project, it is important that you mark confidential information and documents as described in Appendix A. It is equally important that you not submit Protected Personally Identifiable Information (Protected PII) to EERE. See Appendix A for guidance on Protected PII.

Report Templates Link: <http://energy.gov/eere/funding/eere-funding-application-and-management-forms>

I. PROJECT MANAGEMENT REPORTING**A. Research Performance Progress Report (RPPR) (RD&D Projects)**

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 30 calendar days after the end of the quarterly reporting period (January 30, April 30, July 30, October 30)

Every quarter, the Prime Recipient is required to submit a Research Performance Progress Report for the project – i.e., the entirety of work performed by the Prime Recipient, Subrecipients, and contractors – to EERE. The Research Performance Progress Report must include the following information.

Title Page: The title page should identify, in chart form, the Federal Agency to which the report is submitted; the FOA name and number; the nature of the report (i.e., Research Performance Progress Report); the award number; the award type (e.g., grant, CRADA); the name, title, email address, and phone number for the Prime Recipient; the Prime Recipient type (National Lab, University, Private Company, Non-Profit, or Government); the project title; the Principal Investigator(s); the Prime Recipient's DUNS number; the date of the report; and the period covered by the report, including the quarter and year (e.g., Q1: Jan. 1 – Mar. 31, 2010).

Section I. Accomplishments & Milestone Update: A comparison of the actual accomplishments with the technical milestones and deliverables for the period. Explain why the technical milestones and deliverables were not met, if they were not. Describe the pre-commercialization status (e.g., cost, efficiency, durability) of technologies developed or being developed through EERE-sponsored efforts. Discuss what was accomplished during this reporting period, including major activities, significant results, major findings or conclusions, key outcomes, or other achievements. Clearly denote the recipient's unique and distinguished contribution to the project. This section

should contain sufficient information to allow the EERE director to verify the achievement of the technical milestones and deliverables.

Section II. Issues, Risks, and Mitigation: Actual or anticipated problems or delays and actions taken or planned to resolve them.

Section III. Changes in Approach: Any changes in approach or aims and reasons for change. Any changes to the technical milestones and deliverables must be approved in advance by the EERE Contracting Officer.

Section IV. Key Personnel: Any changes in key personnel or teaming arrangements. Such changes must be approved in advance by the EERE Contracting Officer.

Section V. Project Output:

A. Publications: Any project-related articles, papers, or presentations that are authored or prepared by the Project Team and published or distributed (at a conference or otherwise). List author name; title; publication or conference; volume, issue, and pages (if applicable); and year of publication. *The Prime Recipient is required to send a copy of each publication to the program support designated by the EERE Program Director.* Scientific/technical conference papers/proceedings must also be reported in accordance with Section II.B of "EERE Reporting Instructions."

B. Technologies/Techniques: Any new technologies or techniques developed under the Award. Briefly describe the new technologies or techniques (specific capabilities and performance improvements enabled by EERE-sponsored efforts), the pre-commercialization history of the technologies and their potential application to current and future projects.

C. Status Reports: Progress reports and updates submitted to EERE during this quarter. List name of report and date of submission to EERE.

D. Media Reports: Any media articles (e.g., newspapers, magazines, online media). List author, title, publication or website, page number (if applicable), and date of publication. *The Prime Recipient is required to send a copy of any media report that discusses project results to the program support staff designated by the EERE Program Director.*

E. Invention Disclosures: Subject inventions disclosed to EERE and the U.S. Department of Energy (DOE) under this Award. List title, date submitted,

and name of inventor.

- F. **Patent Applications:** Domestic and foreign patent applications arising out of subject inventions disclosed to EERE and the DOE under this Award. List patent number, name of inventors, assignee, patent application number, date of filing, and title of patent application.
- G. **Licensed Technologies:** Subject inventions licensed to third parties. List name of licensee, domestic or foreign patent or patent application number, title, and expiration date of agreement.
- H. **Networks/Collaborations Fostered:** Partnerships and other arrangements concluded with respect to the project or technology area. List name of network/collaboration (if any), name of entities involved, date of agreement (if any), brief description of network/collaboration, and technology area. Clearly denote the partner organizations' unique and distinguished contribution to the project.
- I. **Websites Featuring Project Work or Results:** Web site or other Internet sites that reflect the work or results of this project. List name of website, specific webpage(s) on which project work or results featured, and brief description of project work or results featured.
- J. **Other Products:** Additional project output, such as data or databases, physical collections, audio or video, software or netware, models, educational aid or curricula, instruments or equipment. Provide a brief description of additional project output, date of release, and entity to which output was provided.
- K. **Awards, Prizes, and Recognition:** Any awards, prizes, or other recognition for project work or results, subject inventions, patents or patent applications, etc. List name of award/recognition/prize, name of sponsoring organization, date of receipt, and subject of award/prize/recognition.

Section VI. Follow-On Funding: The Prime Recipient is required to disclose any received or anticipated commitment or obligations of funding that is being received or may be received by the Prime Recipient, Subrecipient, Principal Investigator(s) (including Co-Principal Investigators), or Key Participants to support the EERE funded project or work that relates directly or indirectly to the EERE funded project. List source of funding, amount of funding, the beginning and end dates of funding, and point of contact (name, title, employer, telephone number, and e-mail address), regarding the current or

anticipated funding. Include any pending application for funding to governmental or other entities.

Section VII. Recipient and Principal Investigator Disclosures: The Prime Recipient is required to disclose if any of the following conditions exist:

- A. The Prime Recipient, Subrecipient, or Principal Investigator(s) (including Co-Principal Investigators) is under investigation for or has been convicted of fraud or similar acts, violations of U.S. export control laws and regulations, or violations of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D; 41 U.S.C. 701, et seq.);
- B. The Prime Recipient, Subrecipient, or Principal Investigator(s) (including Co-Principal Investigators) is debarred, suspended, proposed for debarment, or otherwise declared ineligible from receiving Federal contracts, subcontracts, and financial assistance and benefits; and
- C. The Prime Recipient, Subrecipient, or Principal Investigator(s) (including Co-Principal Investigators) is insolvent.

Section VIII. Conflicts of Interests Within Project Team: The Prime Recipient is required to disclose any actual or apparent personal, organizational, financial, and other conflicts of interest within the Project Team. Examples of potential conflicts of interest may include, but are not limited to: the Principal Investigator for the Prime recipient may have an equity stake in a Subrecipient; the Principal Investigator for a Subrecipient may have a consulting arrangement with the Prime Recipient; or a Subrecipient may be a subsidiary or otherwise affiliated with the Prime Recipient.

Section IX. Performance of Work in the United States: All work performed under EERE Awards must be performed in the United States. The Prime Recipient is required to disclose if any work under the Award is being performed outside the US. The Prime Recipient may perform certain work outside the U.S. if it received an authorization in advance by the EERE Contracting Officer (e.g., by approval of a Foreign Work Waiver Request).

Section X. Project Schedule Status: The Prime Recipient is required to report on the status of the technical milestones and deliverables identified in their award. List milestones and deliverables, anticipated start and completion dates, and actual start and completion dates. The Prime Recipient must estimate the percentage complete for each milestone/deliverable.

Section XI.A Budget Status - Prime Recipient: Show approved budget (EERE share vs. the

Prime Recipient's cost share), actual costs incurred during the quarter (EERE share vs. the Prime Recipient's cost share), cumulative cost to date (EERE share vs. the Prime Recipient's cost share), and remaining balance. In addition, show Technology Transfer & Outreach (TT&O) costs on a separate worksheet.

Section XI.B Budget Status – FFRDC/GOGO: Show approved budget (EERE share vs. FFRDC/GOGO cost share, if any), actual costs incurred during the quarter (EERE share vs. FFRDC/GOGO cost share, if any), cumulative cost to date (EERE share vs. FFRDC/GOGO cost share, if any), and remaining balance. In addition, show TT&O costs on a separate worksheet.

Section XII. Certification of Compliance: The Prime Recipient is required to certify that the information provided in the Research Performance Progress Report is accurate and complete as of the date shown.

B. Progress Report (Non-RD&D Projects)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 30 calendar days after the end of the quarterly reporting period (January 30, April 30, July 30, October 30)

The Recipient must provide a concise narrative assessment of the status of work and include the following information and any other information identified under Special Instructions on the Federal Assistance Reporting Checklist:

1. The DOE award and report information:
 - a. The DOE Award Number (as it appears on the award face page)
 - b. Recipient Name (as it appears on the award face page)
 - c. Project Title
 - d. Project Director / Principal Investigator (PD/PI) Name, Title and Contact Information (e-mail address and phone number)
 - e. Name of Submitting Official, Title, and Contact Information (e-mail address and phone number), if other than PD/PI
 - f. Project Period (Start Date, End Date)
 - g. Report Submission Date
 - h. Reporting Period Start and End Date
2. A written comparison of the actual project accomplishments with the project goals and objectives established for the reporting period; if goals and/or objectives for the reporting period were not met, a detailed description of the variance shall be provided.

3. A discussion of what was accomplished under these goals and objectives established for this reporting period, including major activities, significant results, major findings or conclusions, key outcomes, or other achievements. This section should not contain any proprietary data or other information not subject to public release. If such information is important to reporting progress, do not include the information, but include a note in the report advising the reader to contact the Principal Investigator or the Project Director for further information.
4. **Cost Status.** A comparison of the approved budget by budget period and the actual costs incurred during the reporting period shall be provided. If cost sharing is required, the cost breakdown shall show the DOE share, recipient share, and total costs.
5. **Schedule Status.** List milestones, anticipated completion dates and actual completion dates. If you submitted a project management plan with your application, you must use this plan to report schedule and budget variances. You may use your own project management system to provide this information.
6. Describe any changes during the reporting period in project approach and the reasons for these changes. Remember, significant changes to the project objectives and scope require prior approval by the Contracting Officer.
7. Describe any actual or anticipated problems or delays and any actions taken or planned to resolve them.
8. Describe any absence or changes of key personnel or changes in consortium/teaming arrangement during the reporting period.
9. List and describe any product produced or technology transfer activities accomplished during this reporting period, such as:
 - A. Publications (list journal name, volume, issue); conference papers; or other public releases of results. Attach or send copies of public releases to the DOE Program Manager identified in Block 15 of the Assistance Agreement Cover Page.
 - B. Web site or other Internet sites (list the URL) that reflect the results of this project.
 - C. Networks or collaborations fostered.
 - D. Technologies/Techniques (Identify and Describe).
 - E. Inventions/Patent Applications (Identify and Describe with date of application)

F. Other products, such as data or databases, physical collections, audio or video, software or NetWare, models, educational aid or curricula, instruments or equipment (Identify and Describe).

C. Financial Report SF-425 Federal Financial Report

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 30 calendar days after the end of the quarterly reporting period (January 30, April 30, July 30, October 30) and within 90 calendar days after expiration or termination of the award

Every quarter, the Prime Recipient is required to submit a completed SF-425 for the project – i.e., the entirety of work performed by the Prime Recipient, Subrecipients, and contractors – to EERE. A fillable version of the SF-425 is available at http://www.whitehouse.gov/omb/grants/grants_forms.aspx

D. Special Status Report

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within five (5) calendar days after the event, or as specified

The Prime Recipient is required to report the following events to EERE:

1. Any notices or claims of patent or copyright infringement arising out of or relating to the performance of the EERE Award;
2. Refusal of a Subrecipient to accept flowdown requirements in the Special Terms and Conditions and/or any Attachment to the EERE Award;
3. Potential or actual violations of federal, state, and municipal laws arising out of or relating to work under the Award;
4. Any improper claims or excess payments arising out of or relating to work under the Award;
5. Potential or actual violations of the cost share requirements under the Award;
6. Potential or actual noncompliance with EERE or DOE reporting requirements under the Award;
7. Potential or actual violations of the lobbying restrictions in the Award;
8. Potential or actual bankruptcy/insolvency of the Prime Recipient or Subrecipient;

9. Potential or actual violation of U.S. export control laws and regulations arising out of or relating to the work under the Award;

10. Any fatality or injuries requiring hospitalization arising out of or relating to work under the Award;

11. Potential or actual violations of environmental, health, or safety laws and regulations;

12. Any event which is anticipated to cause a significant schedule slippage or cost increase;

13. Any damage to Government-owned equipment in excess of \$25,000;

14. Any incident arising out of or relating to work under the Award that has the potential for high visibility in the media.

E. Other (special Instructions)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within five (5) calendar days after the event, or as specified

II. SCIENTIFIC / TECHNICAL REPORTING

The dissemination of scientific and technical information (STI) ensures public access to the results of federally funded research. STI refers to information products in any medium or format used to convey results, findings, or technical innovations from research and development or other scientific and technological work that are prepared with the intention of being preserved and disseminated in the broadest sense applicable (i.e., to the public or, in the case of controlled unclassified information or classified information, disseminated among authorized individuals). Access to and archival of DOE-funded STI are managed by the DOE Office of Scientific and Technical Information (OSTI). For information about OSTI see <http://www.osti.go>.

For more information on STI submittals, see <http://www.osti.gov/stip/submittal>.

By properly notifying DOE OSTI about the published results, the information will be made publicly accessible and discoverable through DOE web-based products.

NOTE: SCIENTIFIC/TECHNICAL PRODUCTS INTENDED FOR PUBLIC RELEASE MUST NOT CONTAIN PROTECTED PERSONALLY IDENTIFIABLE INFORMATION (PII). PII is defined as any information about an individual which can be used to distinguish or trace an individual's

identity. Some information that is considered to be PII is available in public sources such as telephone books, public websites, university listings, etc. This type of information is considered to be Public PII and includes, for example, first and last name, address, work telephone number, e-mail address, home telephone number, and general educational credentials. In contrast, Protected PII is defined as an individual's first name or first initial and last name in combination with any one or more of the following types of information: social security number, passport number, credit card numbers, clearances, bank numbers, biometrics, date and place of birth, mother's maiden name, criminal, medical and financial records, educational transcripts, etc., which could be mis-used if made publicly available.

Other STI

Recipients are encouraged to announce other forms of STI especially if they are the primary means by which certain research results are disseminated or if they contain research results not already announced to DOE by the Recipient in technical reports, accepted journal articles, or other STI. This Reporting Requirement will be denoted with the Frequency "O – Other" on the Checklist.

Other types of STI produced which may be for used for public dissemination of project results include: dissertation/thesis, patent, book, or other similar products. These types of STI may also be announced using DOE AN 241.3 by following instructions on the E-Link website (<http://www.osti.gov/mlink-2413>).

A. Journal Article-Accepted Manuscript

Submit to:	DOE Energy Link System (E-Link) available at http://www.osti.gov/mlink-2413
Submission deadline:	Within five (5) calendar days after the event, or as specified

Access to scholarly publications is enabled by providing the Journal Article-Accepted Manuscript to DOE OSTI and is consistent with the U.S. Government's retained license to published results of federally funded research. If the Recipient has a journal article accepted for publication, then the Recipient must submit an AN 241.3, as described below, at the time the article meets the status of being "accepted" for publication.

Content. The Recipient is to provide the final peer-reviewed accepted manuscript, i.e., the version of a journal article that has been peer reviewed and accepted for publication in a journal. Do NOT submit the journal's published version of the article, i.e., do NOT submit a copyrighted reprint.

Electronic Submission Process. The Journal Article-Accepted Manuscript must be provided electronically via the DOE Energy Link System (E-Link) and must be accompanied by a completed DOE Announcement Notice (AN) 241.3 (<http://www.osti.gov/mlink-2413>).

Within the AN 241.3, provide relevant journal information (article title, journal name, volume, issue, and any other pertinent publication information) as well as the URL (unless uploading the full document).

Within the 241.3, the Recipients should provide a persistent link to the repository location of the accepted manuscript. An example of a persistent link is a URL to the specific location of the Journal Article-Accepted Manuscript hosted on a public, openly accessible university research publications website. If a persistent link is not available or if the website has access restrictions (preventing public access), then the Recipient should upload the full-text of the Accepted Manuscript using the AN 241.3 and E-Link instructions.

Full-text of accepted manuscripts must be in the ADOBE PORTABLE DOCUMENT FORMAT (PDF) and be one integrated PDF file that contains all text, tables, diagrams, photographs, schematic, graphs, and charts.

B. Scientific / Technical Conference Papers / Presentation /Proceeding

Submit to:	DOE Energy Link System (E-Link) available at http://www.osti.gov/mlink-2413
Submission deadline:	Within five (5) calendar days after the event, or as specified

The Prime Recipient must submit a copy of any scientific/technical conference papers/proceedings, with the following information: (1) name of conference; (2) location of conference; (3) date of conference; and (4) conference sponsor. Scientific/technical conference papers/proceedings must be submitted in the Adobe PDF format as one integrated PDF file containing all text, tables, diagrams, photographs, schematic, graphs, and charts. In addition, scientific/technical conference papers/proceedings must be accompanied by a completed DOE Form 241.3. The form and instructions are available on DOE Energy Link System (E-Link) at <http://www.osti.gov/mlink-2413>.

C. Scientific / Technical Software & Manual

Submit to:	DOE Energy Energy Link System (E-Link) available at http://www.osti.gov/estsc/241-4.jsp
Submission deadline:	Within five (5) calendar days after the event, or as specified

Content. Unless otherwise specified in the award, the following must be delivered: source code, the executable object code and the minimum support documentation needed by a competent user to understand and use the software and to be able to modify the software in subsequent development efforts.

Submission Process. The software submission must be accompanied by a completed DOE Announcement Notice (AN) 241.4 "Announcement of U.S. Department of Energy Computer

Software." The form and instructions are available on E-Link at <http://www.osti.gov/estsc/241-4.jsp>. The AN 241.4 may be filled online and submitted electronically with a printed copy or note accompanying the shipped software package.

Software (including user guide or manual) must be submitted on computer disk (CD) shipped via regular mail to:

Energy Science and Technology Software Center
Box 1020
Oak Ridge, TN 37831

D. Scientific / Technical Datasets

Submit to:	DOE Energy Link System(E-Link) available at http://www.osti.gov/mlink/241-6
Submission deadline:	Within five (5) calendar days after the event, or as specified

Scientific/technical datasets (datastreams, data files, etc.) support the technical reports and published literature resulting from DOE-funded research. They are also recognized as valuable information entities in their own right that, now and in the future, need to be available for citation, discovery, retrieval, and reuse. The assignment and registration of a Digital Object Identifier (DOI) is a free service for DOE-funded researchers which is provided by OSTI to enhance access to this important resource. In order to obtain a DOI, provide to OSTI the specific data elements relevant to the dataset, as specified in DOE AN 241.6.

Content. If the recipient generates publicly available datasets resulting from work funded by DOE, they may announce these datasets to OSTI and have them registered with DataCite to obtain a DOI, which ensures long-term linkage between the DOI and the dataset's location. To register and publicly announce a dataset, the Recipient must provide an AN 241.6, including the required data elements needed for describing the dataset.

Electronic Submission Process. Notification of scientific datasets must be submitted electronically via the DOE Energy Link System (E-Link) and must be accompanied by a completed DOE Announcement Notice (AN) 241.6 (<https://www.osti.gov/mlink/241-6>). Within the AN 241.6, provide relevant information about the dataset as well as the URL where the dataset can be accessed.

E. Other (Dissertation / Thesis, see Special Instructions)

Submit to:	http://www.osti.gov/mlink-2413
Submission deadline:	Within five (5) calendar days after the event, or as specified

Other types of scientific and technical information produced which may be for used for public dissemination of project results include: dissertation/thesis, patent, book, or other similar products. These types of STI may also be announced using DOE AN 241.3 by following instructions on the E-Link website (<http://www.osti.gov/elink-2413>)

NOTE: ALL SCIENTIFIC/TECHNICAL PRODUCTS INTENDED FOR PUBLIC RELEASE SHOULD NOT CONTAIN PROTECTED PII. Personally Identifiable Information (PII) is defined as any information about an individual which can be used to distinguish or trace an individual's identity. Some information that is considered to be PII is available in public sources such as telephone books, public websites, university listings, etc. This type of information is considered to be Public PII and includes, for example, first and last name, address, work telephone number, e-mail address, home telephone number, and general educational credentials. In contrast, Protected PII is defined as an individual's first name or first initial and last name in combination with any one or more of the following types of information: social security number, passport number, credit card numbers, clearances, bank numbers, biometrics, date and place of birth, mother's maiden name, criminal, medical and financial records, educational transcripts, etc., which could be mis-used if made publicly available.

III. CLOSEOUT REPORTING

A. Final Scientific/Technical Report

Submit to:	DOE Energy Link System (E-Link) available at http://www.osti.gov/elink-2413
Submission deadline:	Within 90 calendar days after expiration or termination of the award

The Prime Recipient must submit a Final Scientific/Technical Report to DOE. The Report must be submitted in Adobe PDF Format as one integrated PDF file that contains all text, tables, diagrams, photographs, schematic, graphs, and charts. The Report must be accompanied by a completed electronic version of DOE Form 241.3, "U.S. Department of Energy (DOE), Announcement of Scientific and Technical Information (STI)," available via DOE Energy Link System (E-Link) at <http://www.osti.gov/elink-2413> The Report must contain the following information:

1. Identify the EERE award number; name of recipient; project title; name of project director/principal investigator; and consortium/teaming members.
2. Provide an executive summary, which includes a discussion of (1) how the research adds to the understanding of the area investigated; (2) the technical effectiveness and economic feasibility of the methods or techniques investigated or demonstrated; or (3) how the project is otherwise of benefit to the public. The discussion should be a

minimum of one paragraph and written in terms understandable by an educated layman.

3. Provide a comparison of the actual accomplishments with the goals and objectives of the project.
4. STI that is publicly accessible need not be duplicated in the report if a citation with a link to where the information may be found is included in the report. For example, articles found in PAGES (i.e., DOE's Public Access Gateway for Energy and Science, <http://www.osti.gov/pages/>) are accessible to the public.
5. Summarize project activities for the entire period of funding, including original hypotheses, approaches used, problems encountered and departure from planned methodology, and an assessment of their impact on the project results. Include, if applicable, facts, figures, analyses, and assumptions used during the life of the project to support the conclusions.
6. Identify products developed under the Award and technology transfer activities, such as:
 - a. Publications (list journal name, volume, issue), conference papers, or other public releases of results. If not provided previously, attach or send copies of any public releases to the DOE Program Manager identified in Block 15 of the Assistance Agreement Cover Page;
 - b. Web site or other Internet sites that reflect the results of this project;
 - c. Networks or collaborations fostered;
 - d. Technologies/Techniques;
 - e. Inventions/Patent Applications, licensing agreements; and
 - f. Other products, such as data or databases, physical collections, audio or video, software or netware, models, educational aid or curricula, instruments or equipment.
7. For projects involving computer modeling, provide the following information with the final report:
 - a. Model description, key assumptions, version, source and intended use;
 - b. Performance criteria for the model related to the intended use;

- c. Test results to demonstrate the model performance criteria were met (e.g., code verification/validation, sensitivity analyses, history matching with lab or field data, as appropriate);
- d. Theory behind the model, expressed in non-mathematical terms;
- e. Mathematics to be used, including formulas and calculation methods;
- f. Whether or not the theory and mathematical algorithms were peer reviewed, and, if so, include a summary of theoretical strengths and weaknesses;
- g. Hardware requirements; and
- h. Documentation (e.g. user guides, model code).

B. Invention Certification

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after the expiration or termination of the award

The Prime Recipient is required to submit either an Invention Certification form or DOE Form 2050.11, "Patent Certification." Both forms are available at <http://energy.gov/eere/funding/eere-funding-application-and-management-forms>.

For Large Businesses, the Final Invention and Patent Report must include a list of all subcontracts at any tier containing a patent rights clause (or state that there were none).

C. Final Property Report SF-428 & 428B

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after the expiration or termination of the award

The Prime Recipient must submit a final inventory of Government-furnished property, and property acquired with project funds, whether the property is in the possession of the Prime Recipient or Subrecipients. The Prime Recipient must submit a completed SF-428B, available at http://www.whitehouse.gov/omb/grants_forms. The inventory must include a description of the property, tag number, acquisition date, and acquisition cost, if purchased with project funds. The location of property should be listed under the Comments section. Any property with a fair market value below \$5,000 may be omitted from the inventory.

The Prime Recipient may submit a disposition plan or request by submitting a completed SF-

428C, available at https://www.whitehouse.gov/omb/grants_forms, to <https://www.eere-pmc.energy.gov/SubmitReports.aspx>.

The EERE Contracting Officer has sole and exclusive authority to approve disposition plans and requests.

D. Software Deliverable Submission

Submit to:	DOE Energy Link System (E-Link) available at http://www.osti.gov/estsc/241-4.jsp . Alternatively, submit by regular mail to Energy Science and Technology Software Center, Box 1020, Oak Ridge, TN 37831.
Submission deadline:	Within 90 calendar days after the expiration or termination of the award

The Prime Recipient must submit all software deliverables created under this Award, as well as any accompanying documentation or manuals. The following must be delivered: source code, the executable object code and the minimum support documentation needed by a competent user to understand and use the software and to be able to modify the software in subsequent development efforts.

Each software deliverable and its manual must be accompanied by a completed DOE Form 241.4 "Announcement of U.S. Department of Energy Computer Software," available at <http://www.osti.gov/estsc/241-4.jsp>.

E. Other (see Special Instruction)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after the expiration or termination of the award

IV. OTHER REPORTING

A. Intellectual Property Reporting

Submit to:	http://www.iEdison.gov/
Submission deadline:	Within five (5) calendar days after the event, or as specified

iEdison requires a login and password. If the Recipient's organization does not already have an iEdison administrator account, the Recipient may register for one at: <https://public.era.nih.gov/iedison/public/institution/registration/RegistrationRequestForm.jsp>

In accordance with the patent rights clause of the award, the recipient and subrecipient(s), if any, must complete the following intellectual property reports in iEdison when applicable:

(1) Disclosing a subject invention, including anticipated uses and sales (use iEdison's Invention Report);

- (2) Reporting publications, manuscript submissions, or other public disclosures concerning a subject invention (add documents to the Invention Report);
- (3) Electing (or declining) to retain title to a subject invention (modify the Invention Report and input "Title Election Date" or "Not Elect Title Reason");
- (4) Disclosing the filing or termination of patent applications on a subject invention (i.e., patent applications disclosing or claiming a subject invention). Patent disclosures must be made (using iEdison's Patent Report) for filing the following patent applications:
 - An initial domestic patent application (including provisional or non-provisional);
 - A domestic divisional or continuation patent application;
 - A domestic continuation-in-part application; and
 - A foreign patent application.
- (5) Discontinuing prosecution of a patent application, maintenance of a patent, or defense in a patent reexamination or opposition proceeding, regardless of jurisdiction (modify the Patent Report);
- (6) Requesting an extension of time to:
 - Elect (or decline) to retain title to a subject invention (modify the Invention Report); and
 - File an initial domestic or foreign patent application (modify the Invention Report).

Failure to submit Intellectual Property Reporting Forms in a timely manner may result in forfeiture of the recipient's or subrecipient's rights in the subject inventions and related patent applications.

B. Invention Utilization Report (EERE 356)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after the end of the annual reporting period (Reports are due one year after the disclosure date of each subject invention and must continue to be provided for 10 years after the date of disclosure)

The recipient and subrecipient(s), if any, must provide Invention Utilization Reports for any subject inventions made under the award. Reports are due one year after the disclosure date of each subject invention and must continue to be provided for 10 years after the date of disclosure. Failure to submit Invention Utilization Reports in a timely manner may result in forfeiture of the recipient's or subrecipient's rights in the subject inventions.

C. U.S. Manufacturing Report (EERE 358)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after the end of the annual reporting period (Reports are due annually for 5 years after the end date of the funding agreement)

Organizations (e.g., recipients and subrecipients, at all tiers) that submit a U.S. Manufacturing Plan as part

of their application for funding from the Office of Energy Efficiency and Renewable Energy (EERE), U.S. Department of Energy and are asserting any intellectual property protection over any part of the results from their funding agreements are required to submit annual reports on compliance with the Plan for 5 years from the end date of the funding agreement.

For the purpose of this report, intellectual property protection includes marking data as Protected Data, as defined in 2 CFR 910.362 Appendix A, or asserting copyright protection on any works developed under the funding agreement, other than scientific and technical articles or in software that will be licensed as open source. If you are submitting Invention Utilization Reports, the U.S. Manufacturing Report is not required.

D. Project Management Plan (PMP)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within six (6) weeks of the effective date of the EERE Award

Iterations and Maintenance

The recipient is required to develop, update, and adhere to a project management plan. The purpose of the plan is to establish cost, schedule, and technical performance baselines, and to formalize the processes by which the project will be managed. These processes include considerations such as risk management, change management, and communications management. While it is primarily the project recipient's responsibility to maintain the plan, Federal staff may request changes. The plan is intended to be a living document, modified as necessary, and comprising the following iterations:

Application Draft

The recipient must submit a draft of the project management plan with the initial application for financial assistance.

Negotiation Draft

The selected recipient may be called upon by the selecting Office to revise its project management plan during the negotiation phase.

Active Plan

Following formal award of the financial assistance agreement, the recipient must submit an updated project management plan, to include any changes requested during negotiation and a timeline based upon the actual award date.

a. Revised Plan(s)

During the life of the project the recipient must submit a revised project management plan based on the following circumstances:

1. Developments that have a significant favorable impact on the project.
2. Problems, delays, or adverse conditions which materially impair the recipient's ability to meet the objectives of the award or which may require the program office to respond to questions relating to such events from the public. Specifically, the recipient must update the plan when any of the following incidents occur:
 - a) Any event which is anticipated to cause significant schedule or cost changes, such as changes to the funding and costing profile or changes to the project timeline.
 - b) Any change to Technology Readiness Level.
 - c) Any significant change to risk events (including both potential and realized events) or to risk management strategies
 - d) Failure to meet a milestone or milestones; any dependencies should be adjusted.
 - e) Any changes to partnerships.
 - f) Any significant change to facilities or other project resources.
 - g) Any other incident that has the potential for high visibility in the media.

b. Content of revised PMP:

Project Title: The DOE award number and project title

Recipient Organization: Official name of the recipient organization

Principal Investigator: The name and title of the project director/ principal investigator

Date of Plan: The date the plan or plan revision was completed

The revised PMP must describe changes to any of the following sections of the PMP as well as provide updated versions of any logs, tables, charts, or timelines.

1. Executive Summary: Provide a description of the project that includes the objective, project goals, and expected results. The description should include a high level description of the technology, potential use or benefit of the technology, location of work sites and a brief discussion of work performed at each site, along with a description of project phases (if the project includes phases).
2. Technology Readiness Levels (TRLs): Identify the readiness level of the technology associated with the project as well as the planned progression during the course of project execution. A detailed explanation of the rationale for the estimated technology readiness level should be provided. Specific entry criteria for the next higher technology readiness level should be identified. The following definitions apply:

- a) TRL-1. Basic principles observed and reported: Scientific problem or phenomenon identified. Essential characteristics and behaviors of systems and architectures are identified using mathematical formulations or algorithms. The observation of basic scientific principles or phenomena has been validated through peer-reviewed research. Technology is ready to transition from scientific research to applied research.
- b) TRL-2. Technology concept and/or application formulated: Applied research activity. Theory and scientific principles are focused on specific application areas to define the concept. Characteristics of the application are described. Analytical tools are developed for simulation or analysis of the application.
- c) TRL-3. Analytical and experimental critical function and/or characteristic proof of concept: Proof of concept validation has been achieved at this level. Experimental research and development is initiated with analytical and laboratory studies. System/integrated process requirements for the overall system application are well known. Demonstration of technical feasibility using immature prototype implementations are exercised with representative interface inputs to include electrical, mechanical, or controlling elements to validate predictions.
- d) TRL-4. Component and/or process validation in laboratory environment- Alpha prototype (component) Standalone prototyping implementation and testing in laboratory environment demonstrates the concept. Integration and testing of component technology elements are sufficient to validate feasibility.
- e) TRL-5. Component and/or process validation in relevant environment- Beta prototype (component): Thorough prototype testing of the component/process in relevant environment to the end user is performed. Basic technology elements are integrated with reasonably realistic supporting elements based on available technologies. Prototyping implementations conform to the target environment and interfaces.
- f) TRL-6. System/process model or prototype demonstration in a relevant environment- Beta prototype (system): Prototyping implementations are partially integrated with existing systems. Engineering feasibility fully demonstrated in actual or high fidelity system applications in an environment relevant to the end user.
- g) TRL-7. System/process prototype demonstration in an operational environment- Integrated pilot (system): System prototyping demonstration

in operational environment. System is at or near full scale (pilot or engineering scale) of the operational system, with most functions available for demonstration and test. The system, component, or process is integrated with collateral and ancillary systems in a near production quality prototype.

- h) TRL-8. Actual system/process completed and qualified through test and demonstration- Pre-commercial demonstration: End of system development. Full-scale system is fully integrated into operational environment with fully operational hardware and software systems. All functionality is tested in simulated and operational scenarios with demonstrated achievement of end-user specifications. Technology is ready to move from development to commercialization.
3. Risk Management: Provide a summary description of the proposed approach to identify, analyze, and respond to potential risks associated with the proposed project. Project risk events are uncertain future events that, if realized, impact the success of the project. At a minimum, include the initial identification of significant technical, resource, and management issues that have the potential to impede project progress and strategies to minimize impacts from those issues. The risk management approach should be tailored to the TRL. If a project or task is expected to progress to a higher TRL, then the risk plan should address the retirement of any risks associated with the first TRL and identify new risks related to moving to the next TRL. Additionally, the risk management approach should include risk opportunities that if realized, could benefit the project.
4. Milestone Log: Provide milestones for each budget period (or phase) of the project. Each milestone should include a title and planned completion date. Milestones should be quantitative (e.g., a date, a decision to be made, a key event) and show progress toward budget period and/or project goals. Milestones should also be important and few. Higher TRL projects (Demonstration and Deployment) typically have the most detailed milestone logs compared to lower TRL level projects (Research and Development). If applicable, milestones chosen should clearly reflect progress through various TRL stages.

Note: The Milestone Status must present actual performance in comparison with the Milestone Log, and include:

- (a) The actual status and progress of the project,
- (b) Specific progress made toward achieving the project's milestones, and,
- (c) Any proposed changes in the project's schedule required to complete milestones.

5. **Funding and Costing Profile:** Provide a table (the Project Funding Profile) that shows, by budget period, the amount of government funding going to each project team member. Also a table (the Project Costing Profile) which projects, by month, the expenditure of both government and recipient funds for the first budget period, at a minimum. The Funding and Costing Profile should show the relationships with the Milestone Log (Item 4 above) and Project Timeline (Item 6 below); for example, Funding and Costing information could be shown as an overlay on milestone or timeline charts.
6. **Project Timeline:** Provide a timeline of the project (similar to a Gantt chart) broken down by each task and subtask, as described in the Statement of Project Objectives. The timeline should include a start date and end date for each task, as well as interim milestones. The timeline should also show interdependencies between tasks and include the milestones that are identified in the Milestone Log (Item 4 above). The timeline should also show the relationship to the Project Costing Profile (Item 5 above). If applicable, the timeline should include activities and milestones related to achieving succeeding TRLs.
7. **Success Criteria at Decision Points:** Provide well-defined success criteria for each decision point in the project, including go/no-go decision points and the conclusions of budget periods and the entire project. The success criteria should be objective and stated in terms of specific, measurable, and repeatable data. Usually, the success criteria pertain to desirable outcomes, results, and observations from the project. Key milestones can be associated with success criteria. If applicable, the success criteria should include exit criteria for progressing from one TRL to the next.
8. **Key Partnerships, Teaming Arrangements and Team Members:** Provide a list of key team members in the project as well as the role and contact information of each. A hierarchical project organization and structure chart should be provided along with a description of the role and responsibilities of each team member in terms of contribution to project scope. The section should also include key team members who fulfill single or multiple roles within a project as well as the contact information for each.
9. **Facilities and Resources:** Provide a list of project locations along with a discussion of capabilities and activities performed at each site in terms of contribution to project scope. The address of each work site should be provided.
10. **Communications Management:** Describe the communications needs and expectations for the project team members. The communications plan may

be simple or detailed, depending on the complexity of the project. At a minimum, the plan should include contact information, methods of communicating and anticipated frequency.

11. **Change Management:** Provide a description of the process for managing change on the project. Describe how change will be monitored, controlled and documented within the project. This includes, but is not limited to, changes to the Scope, Schedule, and Budget. If applicable, Change Management should include assessing how changes impact TRLs.

E. Annual Incurred Cost Proposals

Submit to:	If EERE is the Cognizant Federal Agency, send the Annual Incurred Cost Proposal to: <ul style="list-style-type: none">• CostPrice@ee.doe.gov (for awards administered by the Golden Field Office); or• PricingGroup@netl.doe.gov (for awards administered by NETL) Otherwise, submit the proposal to the Cognizant Federal Agency
Submission deadline:	Within 180 calendar days after the close of the recipient's fiscal year

The Prime Recipient and Subrecipient must submit an Annual Incurred Cost Proposal, reconciled to its financial statements unless the award is based on a predetermined or fixed indirect rate(s) or a fixed amount for indirect or facilities and administration (F&A) costs. The Prime Recipient must submit its Annual Incurred cost proposal directly to the Cognizant Federal Agency for negotiating and approving indirect costs.

F. Annual Audits of For-Profit Recipients

Submit to:	DOE-Audit-Submission@hq.doe.gov & <ul style="list-style-type: none">• https://www.eere-pmc.energy.gov/SubmitReports.aspx (for awards administered by the Golden Field Office); and• PricingGroup@netl.doe.gov (for awards administered by NETL)
Submission deadline:	Within the earlier of 30 days after receipt of the auditor's report(s) or 9 months after the end of the audit period (Recipient's fiscal year-end)

As required by 2 CFR parts 910.500 through 910.521, a For-Profit entity which expends \$750,000 or more during their fiscal year in DOE awards must have a compliance audit conducted for that year.

The compliance audit report(s) must be submitted to DOE within the earlier of thirty days after receipt of the auditor's report(s) or nine months after the end of the audit period (Recipient's fiscal year-end). The compliance audit report must be submitted, along with audited financial statements (if applicable), to the appropriate DOE Contracting Officer, Cost-Price Analyst, and the DOE Office of the Chief Financial Officer (CFO).

G. Annual Property Inventories

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after the end of the annual reporting period

The Prime Recipient must submit an annual inventory of Government-furnished property and property acquired with project funding **where the award specifies that the property vests in the Federal Government (i.e., Federally owned property)**, whether held by the Prime Recipient or Subrecipients. The Prime Recipient must complete SF-428A, available at http://www.whitehouse.gov/omb/grants_forms. The inventory must include a description of the property, tag number, acquisition date, and acquisition cost, if purchased with project funds. The location of property should be listed under the Comments section. Any property with a fair market value of \$5,000 or less may be omitted from the inventory.

H. Reporting Addendum (EERE 359)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within 90 calendar days after expiration or termination of the award

I. Other (see Special Instructions)

Submit to:	https://www.eere-pmc.energy.gov/SubmitReports.aspx
Submission deadline:	Within five (5) calendar days after the event, or as specified

APPENDIX A

NOTICE TO RECIPIENTS (PRIME RECIPIENTS AND SUBRECIPIENTS) REGARDING CONFIDENTIAL INFORMATION AND DATA AND PROTECTED PERSONALLY IDENTIFIABLE INFORMATION

I. CONFIDENTIAL INFORMATION AND DATA

The Recipient is required to mark confidential information and data in accordance with this guidance. Failure to properly mark confidential information and data may result in its public disclosure under the Freedom of Information Act (FOIA, 5 U.S.C. § 552) or otherwise.

A. Protected Data

The Recipient must properly mark any documents containing Protected Data. "Protected Data" is defined as information and data produced under the award that, if developed at private expense, would qualify as trade secret, privileged, or confidential information or data. Protected Data is protected from public disclosure for five (5) years from the time it is first produced.

- The cover page must be marked with the following wording and identify the specific pages containing Protected Data:

PROTECTED RIGHTS NOTICE

Pages [] of this document contain protected data that was produced under Agreement No. _____ with the U.S. Department of Energy. This data may not be published, disseminated, or disclosed to others outside the Government until 5 years after development of information under this Agreement, unless express written authorization is obtained from the recipient. Upon expiration of the period of protection set forth in this Notice, the Government shall have unlimited rights in this data.

- The header and footer of each page containing protected information must be marked with the following wording: "May contain protected information that is privileged or confidential and exempt from public disclosure."
- Ensure that all e-mails containing protected information are categorized as "confidential." (Learn how to mark a message confidential in Outlook: <http://office.microsoft.com/en-us/outlook-help/mark-a-message-as-private-personal-or-confidential-HP005242880.aspx>).

B. Other Confidential Information and Data

The Recipient must properly mark any documents containing trade secrets or commercial/financial information that is privileged or confidential.

- The cover page must be marked with the following wording and identify the specific pages containing such information:

NOTICE OF RESTRICTION ON DISCLOSURE AND USE OF DATA

Pages [] of this document may contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

- The header and footer of each page containing such information must be marked with the following wording: *"May contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure."*
- Each line and paragraph containing such information must be marked with double brackets or other clear identification, such as highlighting.
- Ensure that all e-mails containing protected information are categorized as "confidential." (Learn how to mark a message confidential in Outlook: <http://office.microsoft.com/en-us/outlook-help/mark-a-message-as-private-personal-or-confidential-HP005242880.aspx>).

II. PROTECTED PERSONALLY IDENTIFIABLE INFORMATION

The Recipient should not include any Protected Personally Identifiable Information (Protected PII) in their submissions to EERE. Protected PII is defined as any data that, if compromised, could cause harm to an individual such as identify theft. Protected PII includes:

- Social Security Numbers in any form;
- Place of Birth associated with an individual;
- Date of Birth associated with an individual;
- Mother's maiden name associated with an individual;
- Biometric record associated with an individual;
- Fingerprint;
- Iris Scan;
- DNA;
- Medical history information associated with an individual;
- Medical conditions, including history of disease;

- Metric information, e.g., weight, height, blood pressure;
- Criminal history associated with an individual;
- Ratings;
- Disciplinary actions;
- Financial information associated with an individual;
- Credit card numbers; and
- Security clearance history or related information (not including actual clearances held).

Applicant Name: City and County Of San FranciscoAward Number: DE-EE0007599/0000**Attachment 3, Budget Information - Non Construction Programs**

OMB Approval No. 0348-0044

Section A - Budget Summary						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Budget Period 1	81.087			\$121,370	\$247,500	\$368,870
2. Budget Period 2	81.087			\$128,600	\$2,500	\$131,100
3.						
4.						
5. Totals				\$249,970	\$250,000	\$499,970
Section B - Budget Categories						
6. Object Class Categories	Grant Program, Function or Activity				Total (5)	
	Budget Period 1	Budget Period 2				
a. Personnel	\$169,148	\$45,548			\$214,696	
b. Fringe Benefits	\$104,093	\$27,338			\$131,431	
c. Travel	\$5,946	\$4,744			\$10,689	
d. Equipment	\$0	\$0			\$0	
e. Supplies	\$0	\$0			\$0	
f. Contractual	\$36,250	\$36,250			\$72,500	
g. Construction	\$0	\$0			\$0	
h. Other	\$4,250	\$4,100			\$8,350	
i. Total Direct Charges (sum of 6a-6h)	\$319,686	\$117,980			\$437,666	
j. Indirect Charges	\$49,184	\$13,120			\$62,304	
k. Totals (sum of 6i-6j)	\$368,870	\$131,100			\$499,970	
7. Program Income	\$0	\$0			\$0	

Previous Edition Usable

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SF-424A (Rev. 4-92)
Prescribed by OMB Circular A-102

Intellectual Property Provisions (NRD-115)
Nonresearch and Development

Intellectual property rights are subject to 2 CFR 200.315 or 910.362.

Special Terms and Conditions

City and County of San Francisco ("Recipient"), which is identified in Block 5 of the Assistance Agreement, and the Office of Energy Efficiency and Renewable Energy ("EERE"), an office within the United States Department of Energy ("DOE"), enter into this Award, referenced above, to achieve the project objectives and the technical milestones and deliverables stated in Attachment 1 to this Award.

This Award consists of the following documents, including all terms and conditions therein:

	Assistance Agreement
	Special Terms and Conditions
Attachment 1	Statement of Project Objectives and Milestone Summary Table
Attachment 2	Federal Assistance Reporting Checklist and Instructions
Attachment 3	Budget Information SF-424A
Attachment 4	Intellectual Property Provisions

The following are incorporated into this Award by reference:

- DOE Assistance Regulations, 2 CFR part 200 as amended by 2 CFR part 910 at <http://www.eCFR.gov>.
- Research Terms & Conditions and the DOE Agency Specific Requirements at <http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp> (if the Award is for research and the Award is to a university or non-profit).
- National Policy Assurances, to be incorporated as Award Terms in effect on date of award at <http://www.nsf.gov/awards/managing/rtc.jsp>.
- The Recipient's application/proposal as approved by EERE.

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Subpart A. General Provisions

Term 1. Legal Authority and Effect

A DOE financial assistance award is valid only if it is in writing and is signed, either in writing or electronically, by a DOE Contracting Officer.

The Recipient may accept or reject the Award. A request to draw down DOE funds or acknowledgement of award documents by the Recipient's authorized representative through electronic systems used by DOE, specifically FedConnect, constitutes the Recipient's acceptance of the terms and conditions of this Award. Acknowledgement via FedConnect by the Recipient's authorized representative constitutes the Recipient's electronic signature.

Term 2. Flow Down Requirement

The Recipient agrees to apply the terms and conditions of this Award, as applicable, including the Intellectual Property Provisions, to all subrecipients (and subcontractors, as appropriate), as required by 2 CFR 200.101, and to require their strict compliance therewith. Further, the Recipient must apply the Award terms as required by 2 CFR 200.326 to all subrecipients (and subcontractors, as appropriate), and to require their strict compliance therewith.

Term 3. Compliance with Federal, State, and Municipal Law

The Recipient is required to comply with applicable Federal, state, and local laws and regulations for all work performed under this Award. The Recipient is required to obtain all necessary Federal, state, and local permits, authorizations, and approvals for all work performed under this Award.

Term 4. Inconsistency with Federal Law

Any apparent inconsistency between Federal statutes and regulations and the terms and conditions contained in this Award must be referred to the DOE Award Administrator for guidance.

Term 5. Federal Stewardship

EERE will exercise normal Federal stewardship in overseeing the project activities performed under this Award. Stewardship activities include, but are not limited to, conducting site visits; reviewing performance and financial reports; providing technical assistance and/or temporary intervention in unusual circumstances to address deficiencies that develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the project objectives have been accomplished.

Term 6. Substantial Involvement

EERE has substantial involvement in work performed under this Award. EERE does not limit its involvement to the administrative requirements of this Award. Instead, EERE has substantial involvement in the direction and redirection of the technical aspects of the project as a whole.

Substantial involvement includes the following:

- EERE shares responsibility with the Recipient for the management, control, direction, and performance of the Project.
- EERE may intervene in the conduct or performance of work under this Award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
- EERE may redirect or discontinue funding the Project based on the outcome of EERE's evaluation of the Project at the Go/No Go decision point.
- EERE participates in major project decision-making processes.

Term 7. Federal Involvement

A. Review Meetings

The Recipient, including but not limited to, the principal investigator (or, if applicable, co-principal investigators), is required to participate in periodic review meetings with EERE. Review meetings enable EERE to assess the work performed under this Award and determine whether the Recipient has timely achieved the technical milestones and deliverables stated in Attachment 1 to this Award.

EERE shall determine the frequency of review meetings and select the day, time, and location of each review meeting and shall do so in a reasonable and good faith manner. EERE will provide the Recipient with reasonable notice of the review meetings.

For each review meeting, the Recipient is required to provide a comprehensive overview of the project, including:

- The Recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 to this Award;
- The Recipient's actual expenditures compared to the approved budget in Attachment 3 to this Award; and
- Other subject matter specified by the DOE Technology Manager/Project Officer.

B. Project Meetings

The Recipient is required to notify EERE in advance of scheduled tests and internal project meetings that would entail discussion of topics that could result in major changes to the baseline project technical scope/approach, cost, or schedule. Upon request by EERE, the Recipient is required to provide EERE with reasonable access (by telephone, webinar, or otherwise) to the tests and project meetings. The Recipient is not expected to delay any work under this Award for the purpose of government insight.

C. Site Visits

EERE's authorized representatives have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. The Recipient must provide, and must require subrecipients to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

D. Go/No Go Decisions

Attachment 1 to this Award establishes Go/No Go decision points. For each Go/No Go decision point, EERE must determine whether the Recipient has fully and satisfactorily completed the work described in Attachment 1 to this Award. As a result of a Go/No Go review, in its discretion, EERE may take one of the following actions:

- Authorize Federal funding for the next budget period for the Project;
- Recommend redirection of work under the Project;
- Place a hold on the Federal funding for the Project, pending further supporting data; or
- Discontinue providing Federal funding for the Project beyond the current budget period as the result of insufficient progress, change in strategic direction, or lack of available funding.

E. Technical Milestones and Deliverables

Attachment 1 to this Award establishes technical milestones and deliverables. If the Recipient fails to achieve two or more technical milestones and deliverables, EERE may renegotiate the Statement of Project Objectives and/or Milestone Summary Table in Attachment 1 to this Award. In the alternative, EERE may deem the Recipient's failure to achieve these technical milestones and deliverables to be material noncompliance with the terms and conditions of this Award and take action to suspend or terminate the Award.

F. EERE Access

The Recipient must provide any information, documents, site access, or other assistance requested by EERE for the purpose of its Federal stewardship or substantial involvement.

Term 8. NEPA Requirements

If the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE

Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

DOE must comply with the National Environmental Policy Act (NEPA) prior to authorizing the use of Federal funds. Based on all information provided by the Recipient, EERE has made a NEPA determination by issuing a categorical exclusion (CX) for all activities listed in the Statement of Project Objectives (SOPO) approved by the Contracting Officer and the DOE NEPA Determination. The Recipient is thereby authorized to use Federal funds for the defined project activities. This authorization is specific to the project activities and locations as described in the SOPO approved by the Contracting Officer and the DOE NEPA Determination.

If the Recipient later intends to add to or modify the activities or locations as described in the approved SOPO and the DOE NEPA Determination, those new activities/locations or modified activities/locations are subject to additional NEPA review and are not authorized for Federal funding until the Contracting Officer provides written authorization on those additions or modifications. Should the Recipient elect to undertake activities or change locations prior to written authorization from the Contracting Officer, the Recipient does so at risk of not receiving Federal funding for those activities, and such costs may not be recognized as allowable cost share.

Term 9. Performance of Work in United States

A. Requirement

All work performed under this Award must be performed in the United States unless the Contracting Officer provides a waiver. This requirement does not apply to the purchase of supplies and equipment; however, the Recipient should make every effort to purchase supplies and equipment within the United States. The Recipient must flow down this requirement to its subrecipients.

B. Failure to Comply

If the Recipient fails to comply with the Performance of Work in the United States requirement, the Contracting Officer may deny reimbursement for the work conducted outside the United States and such costs may not be recognized as allowable Recipient cost share regardless if the work is performed by the Recipient, subrecipients, vendors or other project partners.

C. Waiver for Work Outside the U.S.

All work performed under this Award must be performed in the United States. However, the Contracting Officer may approve the Recipient to perform a portion of the work outside the United States under limited circumstances. Recipient must obtain a waiver from the Contracting Officer prior to conducting any work outside

the U.S. To request a waiver, the Recipient must submit a written waiver request to the Contracting Officer, which includes the following information:

- The rationale for performing the work outside the U.S.;
- A description of the work proposed to be performed outside the U.S.;
- Proposed budget of work to be performed; and
- The countries in which the work is proposed to be performed.

For the rationale, the Recipient must demonstrate to the satisfaction of the Contracting Officer that the performance of work outside the United States would further the purposes of the FOA that the Award was selected under and is in the economic interests of the United States. The Contracting Officer may require additional information before considering such request.

Term 10. Notice Regarding the Purchase of American-Made Equipment and Products – Sense of Congress

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this Award should be American-made.

Term 11. Reporting Requirements

A. Requirements

The reporting requirements for this Award are identified on the Federal Assistance Reporting Checklist, attached to this Award. Failure to comply with these reporting requirements is considered a material noncompliance with the terms of the Award. Noncompliance may result in withholding of future payments, suspension, or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards by Federal agencies.

B. Dissemination of scientific/technical reports

Scientific/technical reports submitted under this Award will be disseminated on the Internet via the DOE Information Bridge (www.osti.gov/bridge), unless the report contains patentable material, protected data or SBIR/STTR data. Citations for journal articles produced under the Award will appear on the DOE Energy Citations Database (www.osti.gov/energycitations).

C. Restrictions

Reports submitted to the DOE Information Bridge must not contain any Protected Personal Identifiable Information (PII), limited rights data (proprietary data), classified information, information subject to export control classification, or other information not subject to release.

Term 12. Lobbying

By accepting funds under this Award, the Recipient agrees that none of the funds obligated on the Award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

Term 13. Publications

EERE encourages the Recipient to publish or otherwise make publicly available the results of work performed under this Award. The Recipient is required to include the following acknowledgement in publications arising out of, or relating to, work performed under this Award, whether copyrighted or not:

- *Acknowledgment:* "This material is based upon work supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the Fuel Cells Technology Office Award Number DE-EE0007599."
- *Disclaimer:* "This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof."

Term 14. No-Cost Extension

As provided in 2 CFR 200.308, the Recipient must provide the Contracting Officer with notice in advance if it intends to utilize a one-time, no-cost extension of this Award. The notification must include the supporting reasons and the revised period of performance. The Recipient must submit this notification in writing to the Contracting Officer and DOE Technology Manager/ Project Officer at least 30 days before the end of the current budget period.

Any no-cost extension will not alter the project scope, milestones, deliverables, or budget of this Award.

Term 15. Property Standards

The complete text of the Property Standards can be found at 2 CFR 200.310 through 200.316. Also see 2 CFR 910.360 for additional requirements for real property and equipment for For-

Profit recipients.

Term 16. Insurance Coverage

See 2 CFR 200.310 for insurance requirements for real property and equipment acquired or improved with Federal funds. Also see 2 CFR 910.360(d) for additional requirements for real property and equipment for For-Profit recipients.

Term 17. Real Property

Subject to the conditions set forth in 2 CFR 200.311, title to real property acquired or improved under a Federal award will conditionally vest upon acquisition in the non-Federal entity. The non-Federal entity cannot encumber this property and must follow the requirements of 2 CFR 200.311 before disposing of the property.

Except as otherwise provided by Federal statutes or by the Federal awarding agency, real property will be used for the originally authorized purpose as long as needed for that purpose. When real property is no longer needed for the originally authorized purpose, the non-Federal entity must obtain disposition instructions from DOE or pass-through entity. The instructions must provide for one of the following alternatives: (1) retain title after compensating DOE as described in 2 CFR 200.311(c)(1); (2) Sell the property and compensate DOE as specified in 2 CFR 200.311(c)(2); or (3) transfer title to DOE or to a third party designated/approved by DOE as specified in 2 CFR 200.311(c)(3).

See 2 CFR 200.311 for additional requirements pertaining to real property acquired or improved under a Federal award. Also see 2 CFR 910.360 for additional requirements for real property for For-Profit recipients.

Term 18. Equipment

Subject to the conditions provided in 2 CFR 200.313, title to equipment (property) acquired under a Federal award will conditionally vest upon acquisition with the non-Federal entity. The non-Federal entity cannot encumber this property and must follow the requirements of 2 CFR 200.313 before disposing of the property.

A state must use equipment acquired under a Federal award by the state in accordance with state laws and procedures.

Equipment must be used by the non-Federal entity in the program or project for which it was acquired as long as it is needed, whether or not the project or program continues to be supported by the Federal award. When no longer needed for the originally authorized purpose, the equipment may be used by programs supported by DOE in the priority order specified in 2 CFR 200.313(c)(1)(i) and (ii).

Management requirements, including inventory and control systems, for equipment are provided in 2 CFR 200.313(d).

When equipment acquired under a Federal award is no longer needed, the non-Federal entity must obtain disposition instructions from DOE or pass-through entity.

Disposition will be made as follows: (1) items of equipment with a current fair market value of \$5,000 or less may be retained, sold, or otherwise disposed of with no further obligation to DOE; (2) Non-Federal entity may retain title or sell the equipment after compensating DOE as described in 2 CFR 200.313(e)(2); or (3) transfer title to DOE or to an eligible third party as specified in 2 CFR 200.313(e)(3).

See 2 CFR 200.313 for additional requirements pertaining to equipment acquired under a Federal award. Also see 2 CFR 910.360 for additional requirements for equipment for For-Profit recipients. See also 2 CFR 200.439 Equipment and other capital expenditures.

Term 19. Supplies

See 2 CFR 200.314 for requirements pertaining to supplies acquired under a Federal award. See also 2 CFR 200.453 Materials and supplies costs, including costs of computing devices.

Term 20. Property Trust Relationship

Real property, equipment, and intangible property, that are acquired or improved with a Federal award must be held in trust by the non-Federal entity as trustee for the beneficiaries of the project or program under which the property was acquired or improved. See 2 CFR 200.316 for additional requirements pertaining to real property, equipment, and intangible property acquired or improved under a Federal award.

Term 21. Record Retention

Consistent with 2 CFR 200.333 through 200.337, the Recipient is required to retain records relating to this Award.

Term 22. Audits

A. Government-Initiated Audits

The Recipient is required to provide any information, documents, site access, or other assistance requested by EERE, DOE or Federal auditing agencies (e.g., DOE Inspector General, Government Accountability Office) for the purpose of audits and investigations. Such assistance may include, but is not limited to, reasonable access to the Recipient's records relating to this Award.

Consistent with 2 CFR part 200 as amended by 2 CFR part 910, DOE may audit the Recipient's financial records or administrative records relating to this Award at any time. Government-initiated audits are generally paid for by DOE.

DOE may conduct a final audit at the end of the project period (or the termination of

the Award, if applicable). Upon completion of the audit, the Recipient is required to refund to DOE any payments for costs that were determined to be unallowable. If the audit has not been performed or completed prior to the closeout of the award, DOE retains the right to recover an appropriate amount after fully considering the recommendations on disallowed costs resulting from the final audit.

DOE will provide reasonable advance notice of audits and will minimize interference with ongoing work, to the maximum extent practicable.

B. Annual Compliance Audits

The Recipient is required to comply with the annual compliance audit requirements in 2 CFR 200.500 through 521 for institutions of higher education, nonprofit organizations and state and local governments, and 2 CFR 910.500 through 521 for for-profit entities. The annual compliance audits are independent from Government-initiated audits discussed in paragraph A of this Term, and must be paid for by the Recipient. To minimize expense, the Recipient may have a compliance audit in conjunction with its annual audit of financial statements.

Subpart B. Financial Provisions

Term 23. Maximum Obligation

The maximum obligation of DOE for this Award is the total "Funds Obligated" stated in Block 13 of the Assistance Agreement to this Award.

Term 24. Funding of Budget Periods

EERE has obligated funding as shown in Block 13 of the Assistance Agreement for completion of the Project. However, only the Federal share of costs associated with the current Period of Performance is available for work performed by the Recipient. The Federal share of costs is shown on Attachment 3. The current Period of Performance is shown in Block 7 of the Assistance Agreement.

The remainder of funding is contingent upon: (1) availability of Federal funds appropriated by Congress for the purpose of this program; (2) the availability of future-year budget authority; (3) Recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 to this Award; (4) Recipient's submittal of required reports; (5) Recipient's compliance with the terms and conditions of the Award; (6) EERE's Go/No-Go decision; (7) the Recipient's submission of a continuation application; and (8) written approval of the continuation application by the Contracting Officer.

In the event that the Recipient does not submit a continuation application for subsequent Budget Periods, or EERE disapproves a continuation application for subsequent Budget Periods, the maximum EERE liability to the Recipient is the funds that are available for the current

approved Budget Period(s). In such event, EERE reserves the right to deobligate any remaining Federal funds.

Term 25. Continuation Application and Funding

A. Continuation Application

A continuation application is a non-competitive application for an additional budget period within a previously approved project period. At least ninety days before the end of each budget period, the Recipient must submit to the DOE Technology Manager/Project Officer and the DOE Award Administrator its continuation application, which includes the following information:

- i. A report on the Recipient's progress towards meeting the objectives of the project, including any significant findings, conclusions, or developments, and an estimate of any unobligated balances remaining at the end of the budget period. If the remaining unobligated balance is estimated to exceed 20 percent of the funds available for the budget period, explain why the excess funds have not been obligated and how they will be used in the next budget period.
- ii. A detailed budget and supporting justification if there are changes to the negotiated budget, or a budget for the upcoming budget period was not approved at the time of award.
- iii. A description of any planned changes from the negotiated Statement of Project Objectives and/or Milestone Summary Table.

B. Continuation Funding

Continuation funding is contingent on (1) the availability of funds appropriated by Congress for the purpose of this program; (2) the availability of future-year budget authority; (3) Recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 to this Award; (4) Recipient's submittal of required reports; (5) Recipient's compliance with the terms and conditions of the Award; (6) EERE's Go/No-Go decision; (7) the Recipient's submission of a continuation application; and (8) written approval of the continuation application by the Contracting Officer.

- C. EERE waives prior written approval requirements to carry forward unobligated balances to subsequent periods of performance.

Term 26. Cost Sharing

A. Cost Sharing Obligations

The Recipient must provide the "Cost Share" amount stated in Block 12 of the Assistance Agreement to this Award. EERE and the Recipient's cost share for the

total estimated project costs are listed below.

Table 1

Budget Periods (BP)	EERE Cost Share \$ / %	Recipient Cost Share \$ / %	Total Estimated Project Costs
BP 1	\$121,370 / 32.9%	\$247,500 / 67.1%	\$368,870 / 100%
BP 2	\$128,600 / 98%	\$2,500 / 2%	\$131,100 / 100%
Totals	\$249,970 / 50%	\$250,000 / 50%	\$499,970 / 100%

The Recipient must provide its required “Cost Share” amount as a percentage of the total project costs in each invoice period for the duration of the project period. Specifically, the cumulative cost share percentage provided to date on each invoice received must reflect, at a minimum, the cost sharing percentage specified in the Award.

B. Cost Share Obligation If Award Terminated or Discontinued

If the Award is terminated or is otherwise not funded to completion, the Recipient is not required to provide the entire “Cost Share” amount stated in Block 12 of the Assistance Agreement to this Award; however, the Recipient must provide its share (i.e., percentage as shown in Table 1 above) of the total project cost reimbursed as of the date of the termination or discontinuation.

C. Source of Cost Share

The Recipient may not use Federal funds to meet its cost sharing obligations, unless otherwise allowed by Federal law.

D. Inability to Comply with Cost Sharing Obligations

If the Recipient determines that it is unable to meet its cost sharing obligations, the Recipient must notify the DOE Award Administrator in writing immediately. The notification must include the following information: (1) whether the Recipient intends to continue or phase out the project, and (2) if the Recipient intends to continue the project, how the Recipient will pay (or secure replacement funding for) the Recipient’s share of the total project cost.

If the Recipient fails to meet its cost sharing obligations, EERE may recover some or all of the financial assistance provided under this Award. The amount EERE would seek to recover under this Term would be predicated on EERE’s analysis of the Recipient’s compliance with their cost sharing obligation under the Award.

Term 27. Indirect Costs

The Recipient does not have an approved negotiated indirect cost rate agreement, and has submitted an indirect costs rate proposal to DOE in order for proposed indirect costs

to be approved. These costs shall be trued up (actual costs) on an annual basis via the annual incurred cost proposal. The proposed rate is 18%.

A. Lower-than-Expected Indirect Costs

If the Recipient's actual allowable indirect costs are less than those budgeted in Attachment 3 to this Award, the Recipient may use the difference to pay additional allowable direct costs during the project period. If at the completion of the award the Government share of total allowable costs (i.e., direct and indirect) is less than the cost reimbursed, the Recipient must refund the difference.

B. Higher-than-Expected Indirect Costs

The Recipient understands that it is solely and exclusively responsible for managing its indirect costs. The Recipient further understands that EERE will not amend this Award solely to provide additional funds to cover increases in the Recipient's indirect cost rate.

EERE recognizes that the Recipient may not be fully reimbursed for increases in its indirect cost rate, which may result in under-recovery. In the event that the Recipient is not fully reimbursed for increases in its indirect cost rate, the Recipient may use any under-recovery to meet its cost sharing obligations under this Award.

C. Subrecipient Indirect Costs

The Recipient must ensure its subrecipient's indirect costs are appropriately managed, allowable and otherwise comply with the requirements of this Award and 2 CFR part 200 as amended by 2 CFR part 910.

Term 28. Pre-Award Costs

As stated in the Contracting Officer's Pre-Award Costs Letter dated September 6, 2016, the Recipient is authorized to request reimbursement for costs incurred on or after May 3, 2016, if: (1) such costs are allowable in accordance with 2 CFR part 200 as amended by 2 CFR part 910, (2) such costs are not otherwise restricted by Term titled "National Environmental Policy Act (NEPA) Requirements," and (3) such costs are not otherwise restricted by any other Term. If the Recipient elects to undertake activities that are not authorized for Federal funding by the Contracting Officer in advance of DOE completing the NEPA review, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share. Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Contracting Officer override these NEPA requirements to obtain the written authorization from the Contracting Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives.

Term 29. Use of Program Income

If the Recipient earns program income during the project period as a result of this Award, the Recipient must add the program income to the funds committed to the Award and used to further eligible project objectives.

Term 30. Payment Procedures**A. Method of Payment**

Payment will be made by reimbursement through the Department of Treasury's ASAP system.

B. Requesting Reimbursement

Requests for reimbursements must be made through the ASAP system.

C. Adjusting Payment Requests for Available Cash

The Recipient must disburse any funds that are available from repayments to and interest earned on a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds before requesting additional cash payments from EERE.

D. Payments

All payments are made by electronic funds transfer to the bank account identified on the Bank Information Form that the Recipient filed with the U.S. Department of Treasury.

E. Unauthorized Drawdown of Federal Funds

For each budget period, the Recipient may not spend more than the Federal share authorized to that particular budget period, without specific written approval from the Contracting Officer. The Recipient must immediately refund EERE any amounts spent or drawn down in excess of the authorized amount for a budget period. The Recipient and subrecipients shall promptly, but at least quarterly, remit to DOE interest earned on advances drawn in excess of disbursement needs, and shall comply with the procedure for remitting interest earned to the Federal government per 2 CFR 200.305, as applicable.

F. Supporting Documents for Agency Approval of Payments

DOE may require Agency pre-approval of payments. If the Agency approval requirement is in effect for the Recipient's Award, the ASAP system will indicate that Agency approval is required when the Recipient submits a request for payment.

The Recipient must notify the DOE Technical Project Officer and DOE Award Administrator identified on the Assistance Agreement that a payment request has

been submitted.

The following items are required to be submitted to the EERE website

<https://www.eere-pmc.energy.gov/SubmitReports.aspx>:

- Summary cost data, for the billing period and cumulative, showing all categories listed in the SF-424a;
- SF-270; and
- *Applicable to for-profit recipients and subrecipients* UCC filing proof for all equipment acquired with project funds (i.e., Federal share or Recipient share) and equipment offered as cost share.

The DOE payment authorizing official may request additional information from the Recipient to support the payment requests prior to release of funds, as deemed necessary. Recipient is required to comply with these requests. Supporting documents include invoices, copies of contracts, vendor quotes, and other expenditure explanations that justify the payment requests.

Subpart C. Miscellaneous Provisions

Term 31. Insolvency, Bankruptcy or Receivership

- A. The Recipient shall immediately, but no later than five days, notify EERE of the occurrence of any of the following events: (1) the Recipient or the Recipient's parent's filing of a voluntary case seeking liquidation or reorganization under the Bankruptcy Act; (2) the Recipient's consent to the institution of an involuntary case under the Bankruptcy Act against the Recipient or the Recipient's parent; (3) the filing of any similar proceeding for or against the Recipient or the Recipient's parent, or the Recipient's consent to the dissolution, winding-up or readjustment of its debts, appointment of a receiver, conservator, trustee, or other officer with similar powers over the Recipient, under any other applicable state or Federal law; or (4) the Recipient's insolvency due to its inability to pay debts generally as they become due.
- B. Such notification shall be in writing and shall: (1) specifically set out the details of the occurrence of an event referenced in paragraph A; (2) provide the facts surrounding that event; and (3) provide the impact such event will have on the project being funded by this Award.
- C. Upon the occurrence of any of the four events described in paragraph A. of this term, EERE reserves the right to conduct a review of the Recipient's Award to determine the Recipient's compliance with the required elements of the Award (including such items as cost share, progress towards technical project objectives, and submission of required reports). If the EERE review determines that there are

significant deficiencies or concerns with the Recipient's performance under the Award, EERE reserves the right to impose additional requirements, as needed, including (1) change of payment method; or (2) institute payment controls.

- D. Failure of the Recipient to comply with this term may be considered a material noncompliance of this Award by the Contracting Officer.

Term 32. Reporting Subawards and Executive Compensation

A. Reporting of first-tier subawards

- i. *Applicability.* Unless the Recipient is exempt as provided in paragraph D. of this award term, the Recipient must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph E. of this award term).
- ii. *Where and when to report.*
 1. The Recipient must report each obligating action described in paragraph A.i. of this award term to <https://www.fsrs.gov>.
 2. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)
- iii. *What to report.* The Recipient must report the information about each obligating action that the submission instructions posted at <https://www.fsrs.gov> specify.

B. Reporting Total Compensation of Recipient Executives

- i. *Applicability and what to report.* The Recipient must report total compensation for each of its five most highly compensated executives for the preceding completed fiscal year, if
 1. The total Federal funding authorized to date under this Award is \$25,000 or more;
 2. In the preceding fiscal year, the Recipient received;

- a. 80 percent or more of the Recipient's annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - b. \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
3. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/excomp.htm>).
- ii. *Where and when to report.* The Recipient must report executive total compensation described in paragraph B.i. of this award term:
 1. As part of the Recipient's registration profile at <https://www.sam.gov>.
 2. By the end of the month following the month in which this award is made, and annually thereafter.

C. Reporting of Total Compensation of Subrecipient Executives

- i. *Applicability and what to report.* Unless the Recipient is exempt as provided in paragraph D. of this award term, for each first-tier subrecipient under this award, the Recipient shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if:
 1. In the subrecipient's preceding fiscal year, the subrecipient received:
 - a. 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
 - b. \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal

financial assistance subject to the Transparency Act (and subawards); and

2. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>).

- ii. *Where and when to report.* The Recipient must report subrecipient executive total compensation described in paragraph C.i. of this award term:

1. To the recipient.
2. By the end of the month following the month during which the Recipient makes the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (*i.e.*, between October 1 and 31), the Recipient must report any required compensation information of the subrecipient by November 30 of that year.

D. Exemptions

If, in the previous tax year, the Recipient had gross income, from all sources, under \$300,000, it is exempt from the requirements to report:

- i. Subawards and;
- ii. The total compensation of the five most highly compensated executives of any subrecipient.

E. Definitions

For purposes of this Award term:

- i. Entity means all of the following, as defined in 2 CFR Part 25:
 1. A Governmental organization, which is a State, local government, or Indian tribe;
 2. A foreign public entity;
 3. A domestic or foreign nonprofit organization;
 4. A domestic or foreign for-profit organization;
 5. A Federal agency, but only as a subrecipient under an award or

subaward to a non-Federal entity.

ii. Executive means officers, managing partners, or any other employees in management positions.

iii. Subaward:

1. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which the Recipient received this award and that the recipient awards to an eligible subrecipient.
2. The term does not include the Recipient's procurement of property and services needed to carry out the project or program (for further explanation, see Sec. __.210 of the attachment to OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations).
3. A subaward may be provided through any legal agreement, including an agreement that the Recipient or a subrecipient considers a contract.

iv. Subrecipient means an entity that:

1. Receives a subaward from the Recipient under this award; and
2. Is accountable to the Recipient for the use of the Federal funds provided by the subaward.

v. Total compensation means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

1. Salary and bonus.
2. Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.
3. Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement

plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

4. Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
5. Above-market earnings on deferred compensation which is not tax-qualified.
6. Other compensation, if the aggregate value of all such other compensation (*e.g.* severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

Term 33. System for Award Management and Universal Identifier Requirements

A. Requirement for Registration in the System for Award Management (SAM)

Unless the Recipient is exempted from this requirement under 2 CFR 25.110, the Recipient must maintain the currency of its information in SAM until the Recipient submits the final financial report required under this Award or receive the final payment, whichever is later. This requires that the Recipient reviews and updates the information at least annually after the initial registration, and more frequently if required by changes in its information or another award term.

If the Recipient had an active registration in the CCR, it has an active registration in SAM.

B. Requirement for Data Universal Numbering System (DUNS) Numbers

If the Recipient is authorized to make subawards under this Award, the Recipient:

- i. Must notify potential subrecipients that no entity (see definition in paragraph C of this award term) may receive a subaward from the Recipient unless the entity has provided its DUNS number to the Recipient.
- ii. May not make a subaward to an entity unless the entity has provided its DUNS number to the Recipient.

C. Definitions

For purposes of this award term:

- i. System for Award Management (SAM) means the Federal repository into which an entity must provide information required for the conduct of

business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at <https://www.sam.gov>).

- ii. Data Universal Numbering System (DUNS) number means the nine-digit number established and assigned by Dun and Bradstreet, Inc. (D&B) to uniquely identify business entities. A DUNS number may be obtained from D&B by telephone (currently 866-705-5711) or the Internet (currently at <http://fedgov.dnb.com/webform>).
- iii. Entity, as it is used in this award term, means all of the following, as defined at 2 CFR Part 25, subpart C:
 - 1. A Governmental organization, which is a State, local government, or Indian Tribe;
 - 2. A foreign public entity;
 - 3. A domestic or foreign nonprofit organization;
 - 4. A domestic or foreign for-profit organization; and
 - 5. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.
- iv. Subaward:
 - 1. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which the Recipient received this Award and that the Recipient awards to an eligible subrecipient.
 - 2. The term does not include the Recipient's procurement of property and services needed to carry out the project or program (for further explanation, see Sec. __.210 of the attachment to OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations).
 - 3. A subaward may be provided through any legal agreement, including an agreement that the Recipient considers a contract.
- v. Subrecipient means an entity that:
 - 1. Receives a subaward from the Recipient under this Award; and
 - 2. Is accountable to the Recipient for the use of the Federal funds provided by the subaward.

Term 34. Nondisclosure and Confidentiality Agreements Assurances

- A. By entering into this agreement, the Recipient attests that it **does not and will not** require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contractors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.
- B. The Recipient further attests that it **does not and will not** use any Federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:
- i. *"These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling."*
 - ii. The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.
 - iii. Notwithstanding provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

Term 35. Subrecipient Change Notification

Except for subrecipients specifically proposed as part of the Recipient's Application for award, the Recipient must notify the Contracting Officer and Project Manager in writing 30 days prior to the execution of new or modified subrecipient agreements, including naming any To Be Determined subrecipients. This notification does not constitute a waiver of the prior approval requirements outlined in 2 CFR part 200 as amended by 2 CFR part 910, nor does it relieve the Recipient from its obligation to comply with applicable Federal statutes, regulations, and executive orders.

In order to satisfy this notification requirement, the Recipient documentation must, as a minimum, include the following:

- A description of the research to be performed, the service to be provided, or the equipment to be purchased;
- Cost share commitment letter if the subrecipient is providing cost share to the Award;
- An assurance that the process undertaken by the Recipient to solicit the subrecipient complies with their written procurement procedures as outlined in 2 CFR 200.317 through 200.329;
- An assurance that no planned, actual or apparent conflict of interest exists between the Recipient and the selected subrecipient and that the Recipient's written standards of conduct were followed¹;
- A completed Environmental Questionnaire, if applicable;
- An assurance that the subrecipient is not a debarred or suspended entity; and
- An assurance that all required award provisions will be flowed down in the resulting subrecipient agreement.

The Recipient is responsible for making a final determination to award or modify subrecipient agreements under this agreement, but the Recipient may not proceed with the subrecipient agreement until the Contracting Officer determines, and provides the Recipient written notification, that the information provided is adequate.

Should the Recipient not receive a written notification of adequacy from the Contracting Officer within 30 days of the submission of the subrecipient documentation stipulated above, Recipient may proceed to award or modify the proposed subrecipient agreement.

¹ It is DOE's position that the existence of a "covered relationship" as defined in 5 CFR 2635.502(a)&(b) between a member of the Recipient's owners or senior management and a member of a subrecipient's owners or senior management creates at a minimum an apparent conflict of interest that would require the Recipient to notify the Contracting Officer and provide detailed information and justification (including, for example, mitigation measures) as to why the subrecipient agreement does not create an actual conflict of interest. The Recipient must also notify the Contracting Officer of any new subrecipient agreement with: (1) an entity that is owned or otherwise controlled by the Recipient; or (2) an entity that is owned or otherwise controlled by another entity that also owns or otherwise controls the Recipient, as it is DOE's position that these situations also create at a minimum an apparent conflict of interest.

Term 36. Conference Spending

The Recipient shall not expend any funds on a conference not directly and programmatically related to the purpose for which the grant or cooperative agreement was awarded that would defray the cost to the United States Government of a conference held by any Executive branch department, agency, board, commission, or office for which the cost to the United States Government would otherwise exceed \$20,000, thereby circumventing the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General (or senior ethics official for any entity without an Inspector General), of the date, location, and number of employees attending such conference.

Term 37. Recipient Integrity and Performance Matters**A. General Reporting Requirement**

If the total value of your currently active Financial Assistance awards, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of this Federal award, then you as the recipient during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this term. This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

B. Proceedings About Which You Must Report

Submit the information required about each proceeding that:

- i. Is in connection with the award or performance of a Financial Assistance, cooperative agreement, or procurement contract from the Federal Government;
- ii. Reached its final disposition during the most recent five year period; and
- iii. Is one of the following:
 1. A criminal proceeding that resulted in a conviction, as defined in paragraph E of this award term and condition;
 2. A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more;
 3. An administrative proceeding, as defined in paragraph E of this term, that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of \$5,000 or more or reimbursement, restitution, or damages in excess of \$100,000; or

4. Any other criminal, civil, or administrative proceeding if:
 - a. It could have led to an outcome described in paragraph B.iii.1, 2, or 3 of this term;
 - b. It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and
 - c. The requirement in this term to disclose information about the proceeding does not conflict with applicable laws and regulations.

C. Reporting Procedures

Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in paragraph B of this term. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

D. Reporting Frequency

During any period of time when you are subject to the requirement in paragraph A of this term, you must report proceedings information through SAM for the most recent five year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, Financial Assistance awards, (including cooperative agreement awards) with a cumulative total value greater than \$10,000,000, must disclose semiannually any information about the criminal, civil, and administrative proceedings.

E. Definitions

For purposes of this term:

- i. Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or Financial Assistance awards. It does not include audits, site visits, corrective plans, or inspection of deliverables.
- ii. Conviction means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of *nolo contendere*.
- iii. Total value of currently active Financial Assistance awards, cooperative agreements and procurement contracts includes—

1. Only the Federal share of the funding under any Federal award with a recipient cost share or match; and
2. The value of all expected funding increments under a Federal award and options, even if not yet exercised.

Non-R&D Performance Progress Report (N-RPPR) for DOE/EERE

Project Title: Advancing Fuel Cell Electric Vehicles in San Francisco and Beyond

Project Period: 10/1/2016 – 9/30/2017 (Budget Period 1 only)

Reporting Period: 10/1/2016 – 12/31/2016

Submission Date: (DATE)

Recipient: City and County of San Francisco
1 Dr. Carlton B. Goodlett PL, Room 300
San Francisco, CA 94102-4694

Website (if available)

Award Number: DE-EE0007599

Working Partners: BKi, Newcomb Anderson McCormick, Business Council on Climate Change

Cost-Sharing Partners: San Francisco Planning Department

PI: Jessie Denver
415-355-3720
Jessie.denver@sfgov.org

Submitted by: Jack Johnson
(if other than PI) Phone: 555-555-1000
Email: jjohnson@abcco.com

DOE Project Team: DOE Contracting Officer – Lalida Crawford
DOE Project Managers – Greg Kleen
Project Engineer – Chris Werth (AST)

Project Objectives:

[General outline of the project objectives]

Background: [This section changes slowly, outlining the reason for the project and the major technical challenge(s) currently being addressed. Also include a brief summary of work previously accomplished (one or two paragraphs).]

Work Planned for this Quarter: [This is a useful reminder of what was promised or planned. Feel free to copy text and bullets from "Plans for Next Quarter" as stated in the previous quarter's report and paste them here.]

Significant Accomplishments This Period:

1. [Important high level accomplishments/results during the reporting period. Include both positive and negative results as appropriate, and indicate the significance of each accomplishment. This should NOT contain any proprietary information or details that cannot be released to the public.]
2. etc.
3. etc.]

Status: [This is a detailed discussion to describe work accomplished in the last quarter, how it was done, and any problems or programmatic issues related to a task and its schedule. The status should not contain any proprietary information, or details that should not be released to the public. If such details are important to reporting the status, a note can be included in the write-up indicating this and asking the reader to contact the PI for further information.]

This section is normally about four to ten pages. Please be task- specific and refer to the same tasks as listed in the Statement of Objectives (SOPO). If no activity occurred on a particular task, enter 'Nothing to Report'.

Budget Period 1 Tasks

Task 1. Project Communications (Q1-Q4)

Task 2. Develop and Implement Training Plan (Q1-Q4)

Task 3. Streamline Permitting Process for Station Development (Q1-Q4)

Task 4. Perform Zoning Analyses in San Francisco (Q3-Q4)

Task 5. Develop and Implement Community Engagement Plan (Q1-Q4)

Task 6. Develop and Implement ZEV/FCEV Group-Buy Program(s) (Q2-Q8)

Task 7. Support CEC funding applications for hydrogen station development (Q1-Q4)

Changes/Problems: [List any changes in approaches and reasons for change; actual or anticipated problems or delays and actions or plans to resolve them; or changes that have a significant impact on expenditures]

Plans for Next Quarter: [A few sentences or bullets about the planned accomplishments for the next quarter, note any changes expected in the schedule for the project.]

Patents: [Identify all patents applied for or resulting from this award.]

Publications/Presentations: [List all publications and presentations to industry, educational institutions, or government groups describing work accomplished under this award during this quarter.]

Milestone Summary Table									
Recipient Name:		Virginia Clean Cities at James Madison University (DE-EE0006932)							
Project Title:		Fuel Cell and Hydrogen Opportunity Center							
Task #	Task/Subtask Title	Type	Milestone #	Milestone Description	Milestone Verification Process	Anticipated Quarter (from project start)	Planned Completion Date	Actual Completion Date	Progress Notes
1	Set up and sign contracts and agreements between partners	Milestone	1.1	NA	City to ensure agreements with stakeholders (e.g., U.S. DOE / all subcontractors) are in place.	Q1			
2	Training event list	Milestone	2.2	NA	City and BKi to identify dates and venues for training events (first responders, permitting officials, inspectors); confirm and schedule events. City to provide a description of the training events for U.S. DOE review.	Q2			
3	Station Development: Document Permitting Process	Milestone	3.1	NA	City to document AHJ permitting / inspection processes for gasoline and/or CNG stations. Provide report and documentation to U.S. DOE that staff in the Planning, Building Inspection and Fire Departments were interviewed.	Q3			
6	Develop and implement ZEV/FCEV group-buy program	Go/No Go	6.4	Launch program Respond to participant questions Conduct workshops and webinars Facilitate leads to selected auto dealers	BC3: engage 20 affinity groups BC3: enroll a minimum of 300 interested participants (residents/consumers). Hold a minimum of 10-15 workshops / webinars.	Q4			
9	Develop educational workshop / webinar series for local government officials and general public	Milestone	9.2	NA	City to identify 2-5 target communities and conduct education / outreach via workshops.	Q5			

10	Permitting Process	Milestone	10.1	NA	City to work with BKi to create and implement an expedited permitting process. City to develop case study and submit to DOE in Q8.	Q6			
9	Community Engagement	Milestone	9	NA	Memo to DOE	Q7			
12	Reporting and Dissemination	Milestone	12	NA	City to present at local, state and national conferences. City to develop 3 case studies on lessons learned.	Q8			

Actuals
Estimates

Quarter	From	To	Quarterly Federal Share of Outlays*	Cumulative Federal Share of Outlays*	Quarterly Recipient Share of Outlays*	Cumulative Recipient Share of Outlays*
1	Start	6/30/2015				
2	7/1/2015	9/30/2015				
3						
4						
5						
6						
7						
8						
Etc.						
Totals				996,294		254,215

*** Notes:**

Update "Actual" outlays and future "Estimates" each quarter

- 1) Previous quarters should show actual expenditures and should match numbers reported in the SF-425 (quarterly financial report)
- 2) Future quarters should show estimates
- 3) Estimates need to be provided for the life of the project
- 4) If spending for a given quarter is different than estimated, then future quarter estimates should be updated to account for the difference
- 5) Total DOE and Cost Share amounts should be the same as the Award amount
- 6) DOE Laboratory partner spending should not be included in the above table