INTERLOCAL COOPERATIVE PROJECT AGREEMENT
BETWEEN
PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY, WASHINGTON
AND
CITY OF RICHLAND, WASHINGTON
Contract #11-21-16

BY THIS INTERLOCAL COOPERATIVE AGREEMENT, hereinafter referred to as "Interlocal Agreement", entered into this 22 day of November, 2011, CITY OF RICHLAND, WASHINGTON, a municipal corporation of the State of Washington, hereinafter referred to as the "City", and PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY, WASHINGTON, a municipal corporation of the State of Washington, hereinafter referred to as "District", enter into the following agreement:

RECITALS

WHEREAS, RCW 39.34 provides for agreements for joint or cooperative action by public agencies; and

WHEREAS, the District has signed a Sub-Recipient Cooperative Agreement No. 115492 ("Cooperative Agreement") to participate in the Pacific Northwest Smart Grid Demonstration in connection with Battelle's cooperative Agreement No. DE-OE0000190 with the US Department of Energy; and

WHEREAS, the District has contracted with Demand Energy as part of the scope of this demonstration to design, implement, integrate and provide a 10-kilowatt Distributed Electricity Storage Solution acting as a responsive asset in the transactive control portion of the demonstration; and

WHEREAS, the District has agreed to expand the scope of this project to improve the demonstration of its ability to collectively respond as a single resource, even when distributed across utility boundaries; and

WHEREAS, there is a mutual benefit to the District and City to cooperate on this project to develop the ability for energy storage devices on neighboring utility systems for participation in transactive control across utility electrical and business boundaries, benefiting the region (the "Project"); NOW, THEREFORE,

AGREEMENT

IT IS HEREBY AGREED AS FOLLOWS:

1. Term of Agreement. This agreement is contingent upon final approval of Modification 2 of the Sub-Recipient Cooperative Agreement No. 115492 by the District. This Interlocal Agreement shall be effective from the date of filing as

provided in Section 8, or upon execution by the District of Modification 2 of the Sub-Recipient Cooperative Agreement No. 115492, whichever is later, and shall remain in full force and effect until January 31, 2015 unless sooner terminated as hereinafter provided, or modified by written amendment signed by both parties.

2. Sub-Recipient Cooperative Agreement. Said Cooperative Agreement is attached hereto as Exhibit A and made a part hereof by this reference. The City acknowledges receipt of a copy of the Cooperative Agreement, including the Subproject Technical Summary and Statement of Work dated March 9, 2010, the General Provisions, and the Special Conditions, and shall support the District in complying with all provisions thereof including.

3. Installation of Equipment. The City shall perform all work necessary to install the equipment described in the attached Exhibit B at its own expense.

4. Payment. The District shall order equipment for the Project that is eligible for the 50% match provided by the Cooperative Agreement. Upon notice of the amount of the City's matching funds for such purchase, the City shall pay the District one-half of the total cost of the equipment ordered for installation by the City. In no event shall the City be required to pay more than $25,000.00 for such equipment.

5. Ownership of Property. The District shall retain title to the equipment purchased in part from the grant received pursuant to the Cooperative Agreement until such time as the interest of the federal government in said assets is released as provided in the Cooperative Agreement. When assets are released the City will have first right of refusal for assets purchased under this agreement.

6. Insurance. The City shall, at the City's expense, maintain its membership in a self-insurance program ("self-insurance"), or maintain a commercial general liability insurance policy with an insurer acceptable to the District, insuring against any and all claims for injury to or death of persons and loss of or damage to property arising from an act or omission of the City or any of its agents, employees, contractors, and representatives. Such self-insurance or insurance shall have liability limits of $2 million combined single limit for bodily injury and property damage per occurrence and in the aggregate.

   Within ten (10) days of the effective date of this Interlocal Agreement, the City shall provide to the District a copy of the insurance policies, agreement, or certificates evidencing the aforesaid insurance coverage required above. Renewal certificates and any changes in terms shall be furnished to the District for approval at least thirty (30) days prior to the expiration date of each policy for which a certificate was theretofore furnished.

7. Indemnity. The City agrees to indemnify, waive, and save harmless the District and its representatives from and against any and all liability arising from injury or death of persons or damage to property occasioned by any negligent act or omission or violation or breach of this Interlocal Agreement by the City, its agents,

servants, employees or contractors, including any and all expense, legal or otherwise, incurred by the District or its representatives in the defense of any claim or suit relating to such injury or damage. The indemnification of the District does not apply to liability arising from the negligence of the District or its representatives.

For the purpose of fulfilling this indemnity obligation, the City hereby waives any and all immunity rights or protections created by the Worker's Compensation Act, and further agrees that this indemnity agreement shall apply to, but shall not be limited to, actions brought by its own employees.

8. Administration. It is not intended that a separate legal entity shall be established to conduct the cooperative undertaking, nor is the acquiring, or holding, or disposing of real or personal property anticipated except as stated above. The District's Project Manager shall be responsible for administering this Interlocal Agreement.

9. Assignment. This Interlocal Agreement may not be assigned by either party.

10. Filing. Upon execution of this Interlocal Agreement, the parties shall file a true and complete copy thereof as required by 39.34 RCW.

11. Entire Agreement. This document contains the entire and integrated agreement of the parties and may not be modified except in writing, signed by both parties.

12. Notice. Any notice required to be given under this Interlocal Agreement shall be given by depositing in the U.S. Mail with certified postage prepaid to the address of the District or the City, respectively, as set forth herein and shall be effective three (3) days after the date of mailing as shown by the postmark or shall be given in writing served on the Energy Services Director of the City or on the Contracts and Purchasing Manager of the District.

13. Termination. The District may, by written notice to the City, terminate this Interlocal Agreement in whole or in part any time, either for the District's convenience, or for the default of the City.

    Whether or not the termination of this Interlocal Agreement is for the convenience of the District, the District shall not be obligated to reimburse the City for any expense incurred whatsoever in participating in the Project to the date of termination, except to the extent that the District has received and been able to retain a match owing to the City, which has not been paid to the City prior to termination. In the event that the District must repay to Battelle or the federal government funds paid to the City as part of the 50% match, the City shall reimburse the District for such repayment.

14. Authorization. Each party hereby represents and warrants to the other that it is duly authorized to enter into and carry out the terms of this Interlocal Agreement.

IN WITNESS WHEREOF, the parties hereto entered in the above and foregoing Interlocal Agreement the day and year first above written.

CITY OF RICHLAND,
WASHINGTON

By: _____

Title: City Manager

Date: 10-12-11

PUBLIC UTILITY DISTRICT NO. 1
OF BENTON COUNTY,
WASHINGTON

By: _____

Title: Assistant General Manager

Date: 11/22/11

BATTELLE MEMORIAL INSTITUTE
PACIFIC NORTHWEST DIVISION

COPY

Sub-Recipient Cooperative Agreement No. 115492
Modification 2

SCHEDULE

I. RECITALS

This is a modification to Sub-Recipient Cooperative Agreement No. 115492, between the contracting parties, the Battelle Memorial Institute, Pacific Northwest Division, an Ohio Corporation with principal offices in Columbus, Ohio (hereinafter called "Battelle"), and Benton Public Utility District, with offices in Kennewick, Washington (hereinafter called the "Sub-Recipient").

There is now in full force and effect between the parties a Sub-Recipient Cooperative Agreement No. 115492, and modified by Modification 1, entered into on 04/14/2010 under Battelle's Cooperative Agreement No. DE-OE0000190 with the US Department of Energy.

The parties desire to modify said Cooperative Agreement as follows.

II. AGREEMENTS

1. Article II, AGREEMENTS, Subarticle 2, shall be deleted and the following substituted therefor:

"2. Ceiling Amount: Not to exceed **$323,700.00**"

2. Article II, AGREEMENTS, Subarticle 5, shall be deleted and the following substituted therefor:

"5. Cost Sharing Requirement: Sub-Recipient shall share at least 50% of the total sub-project costs. All costs will be shared on an 'as-expended', dollar-for-dollar basis. In order to be recognized as allowable cost sharing, costs must be otherwise allowable in accordance with the applicable Federal cost principles and DOE Regulations (10CFR600.123; 600.224; or 600.313) governing cost sharing. Cost sharing may be in various forms or combinations, which includes but is not limited to cash outlays and in-kind contributions. All allowable project costs, whether cash or in-kind, shall be shared by Battelle (via DOE cooperative agreement) when such costs are incurred by applying the share ratios set forth in the Cooperative Agreement. The value of in-kind contributions not requiring cash outlays (i.e., existing assets) shall be pro-rated over the life of the project, beginning when the in-kind contribution is initially required for performance of the Cooperative Agreement.

a. Total Estimated Sub-Recipient Project Cost is the sum of the Government share and Sub-Recipient share of the estimated project costs. The Sub-Recipient's cost share must come from non-Federal sources unless otherwise allowed by law. By accepting federal funds under this award, you agree that you are liable for your percentage share of total allowable project costs, on an "as expended", dollar-for-dollar basis, even if the project is terminated early or is not funded to its completion. This cost is shared as follows:

Statement of Work Addendum
Benton P.U.D.
December 28, 2010

Additional Objective

Install additional, larger scale Demand Shifter energy storage devices on neighboring utility systems for participation in transactive control across utility electrical and business boundaries, benefiting the Pacific Northwest Smart Grid Demonstration Project, the Tri-Cities area and the northwest region of the United States.

Additional Scope

The additional funding will be used to purchase Demand Shifters of a greater scale, perhaps 10 kW each, that will be distributed at other utilities/entities in Benton County. These units would also be controlled through Benton PUD's DataCatcher for participation in transactive control. The Demand Shifter can be dispatched as generation, or it can be dispatched as load. These additional units will improve the demonstration of their ability to collectively respond as a single resource, even when distributed across utility boundaries. In addition, the larger scale units will better demonstrate their ability to respond to peak demand. For example, a 10 kW unit installed at a "big box store" could be used to manage peak demand for that customer and/or the circuit, while at the same time being available to respond to regional transactive control signals related to wind integration, demand or other incentives.

Deliverables

See Subproject Technical Summary and Statement of Work dated 03/09/10.

Government Share $ / %	Sub-Recipient Share $ / %	Total Estimated Sub-Recipients Project Cost
$323,700 / 50%	**$323,700 / 50%**	**$647,400**

b. Sub-Recipient must maintain records of all project costs that you claim as cost sharing, including in-kind costs, as well as records of costs to be paid by Battelle. Such records are subject to audit as per General Provisions."

3. Article II, AGREEMENTS, Subarticle 12, shall be deleted and the following substituted therefor:

"12. Agreement Contents: In addition to this Schedule, the Agreement consists of:
- Subproject Technical Summary and Statement of Work, dated 3/9/2010
- **Addendum Subproject Technical Summary and Statement of Work, dated 12/28/2010**
- General Provisions – Utility Sub-recipients Special Cooperative Agreement 2/2010
- Special Provisions Relating to Work Funded Under American Recovery and Reinvestment Act of 2009
- Reporting Requirements Checklist
- Project Management Plan"

4. It is understood and agreed that all other terms and conditions of Sub-Recipient Cooperative Agreement No. 115492 shall remain unchanged.

III. SIGNATURES

BATTELLE MEMORIAL INSTITUTE
PACIFIC NORTHWEST DIVISION

By: Sheena Kanyid
Sheena Kanyid

Title: Senior Contracts Specialist

Date: 1/21/2011

BENTON PUBLIC UTILITY DISTRICT

By:

Title: General Manager

Date: October 25, 2011

BATTELLE MEMORIAL INSTITUTE
PACIFIC NORTHWEST DIVISION

Sub-Recipient Cooperative Agreement No. 115492
Modification 1

SCHEDULE

I. RECITALS

This is a modification to Sub-Recipient Cooperative Agreement No. 115492, between the contracting parties, the Battelle Memorial Institute, Pacific Northwest Division, an Ohio Corporation with principal offices in Columbus, Ohio (hereinafter called "Battelle"), and Benton Public Utility District, with offices in Kennewick, Washington (hereinafter called the "Sub-Recipient").

There is now in full force and effect between the parties a Sub-Recipient Cooperative Agreement No. 115492, entered into on 03/23/2010 under Battelle's Cooperative Agreement No. DE-OE0000190 with the US Department of Energy.

The parties to fully fund said Cooperative Agreement.

II. AGREEMENTS

1. Article II, AGREEMENTS, Subarticle 3, shall be deleted and the following substituted therefor:

"3. Limitation of funds: The Sub-Recipient Agreement is now fully funded.

2. It is understood and agreed that all other terms and conditions of Sub-Recipient Cooperative Agreement No. 115492 shall remain unchanged.

III. SIGNATURES

BATTELLE MEMORIAL INSTITUTE PACIFIC NORTHWEST DIVISION	BENTON PUBLIC UTILITY DISTRICT
By: Sheena Kanyid Sheena Kanyid	By:
Title: Senior Contracts Specialist	Title: General Manager
Date: 8/23/10	Date: 8/24/10

EXHIBIT A

BATTELLE MEMORIAL INSTITUTE
PACIFIC NORTHWEST DIVISION

Sub-Recipient Cooperative Agreement No. 115492

SCHEDULE

I. RECITALS

The contracting parties are Battelle Memorial Institute, Pacific Northwest Division, an Ohio Corporation with principal offices in Columbus, Ohio (hereinafter called "Battelle"), and Benton Public Utility District located in Kennewick, Washington, (hereinafter called the "Sub-Recipient").

This sub-recipient cooperative agreement is made for the participation in the Pacific Northwest Smart Grid Demonstration in connection with Battelle's Cooperative Agreement No. DE-OE0000190 with the US Department of Energy.

On June 25, 2009, DOE issued a competitive Funding Opportunity Announcement (FOA) supported with funds appropriated by the American Recovery and Reinvestment Act of 2009, P.L. 11-5 (ARRA), for regional Smart Grid demonstrations to verify smart grid technology viability, quantify smart grid costs and benefits, and validate new smart grid business models, at a scale that can be readily adapted and replicated around the country. Battelle, as prime applicant under the FOA, submitted the Pacific Northwest Smart Grid Demonstration Project (Project) proposal on behalf of a coalition of regional utilities and technology vendors, including the Sub-Recipient.

II. AGREEMENTS

1. Project Period: The project period is 2/1/2010 through 1/31/2015.

   Allowable costs under this agreement incurred prior to the date of its award and execution are eligible for reimbursement effective to November 25, 2009.

2 Ceiling Amount: Not to exceed $248,700

3. Limitation of funds: $10,000 is available to the Sub-Recipient during the definitization period of Battelle's Cooperative Agreement with DOE/NETL. Authorized Task are those related to supporting the Project Management Plan (PMP) update and Development of the Interoperability and Cyber Security Plan; in accordance with your Sub-project description, and as directed by Battelle

4. Non-labor Costs: Non-labor costs may be reimbursed at cost to the extent such costs are appropriate, allowable, and allocable to the project.

5. Cost Sharing Requirement: Sub-Recipient shall share at least 50% of the total sub-project costs. All costs will be shared on an 'as-expended', dollar-for-dollar basis. In order to be recognized as allowable cost sharing, costs must be otherwise allowable in accordance with the applicable Federal cost principles and DOE Regulations (10CFR600.123; 600.224; or 600.313) governing cost sharing. Cost sharing may be in various forms or combinations, which includes but is not limited to cash outlays and in-kind contributions. All allowable project costs, whether cash or in-kind, shall be shared by Battelle (via DOE cooperative agreement) when such costs are incurred by applying the share ratios set forth in the Cooperative Agreement. The value of in-kind contributions not requiring cash outlays (i.e., existing assets) shall be pro-rated over the life of the project, beginning when the in-kind contribution is initially required for performance of the Cooperative Agreement.

a. Total Estimated Sub-Recipient Project Cost is the sum of the Government share and Sub-Recipient share of the estimated project costs. The Sub-Recipient's cost share must come from non-Federal sources unless otherwise allowed by law. By accepting federal funds under this award, you agree that you are liable for your percentage share of total allowable project costs, on an "as expended", dollar-for-dollar basis, even if the project is terminated early or is not funded to its completion. This cost is shared as follows:

Government Share $ / %	Sub-Recipient Share $ / %	Total Estimated Sub-Recipients Project Cost
$248,700 / 50%	**$248,700 / 50%**	**$497,400**

b. Sub-Recipient must maintain records of all project costs that you claim as cost sharing, including in-kind costs, as well as records of costs to be paid by Battelle. Such records are subject to audit as per General Provisions.

7. Payment Procedures:
a. Method of Payment. Payment will be made through ACH.
b. Request for payment must be made electronically through the Battelle Project Specialist, Carla Raymond, at Carla.Raymond@battelle.org

8. Project Responsibilities
a. Battelle's Responsibilities: Battelle is responsible to
- Make sure the Pacific Northwest Smart Grid Demonstration Project successfully completes its scope and technical objectives within approved budget and schedule
- Oversee the performance of activities in accordance with the Project Management Plan
- Maintain/conduct all correspondence with the DOE relative to the project
- Chair Project Review Board
- Lead external and Project communication efforts
- Manage federal funds
- Track project management performance metrics such as milestone status and Earned Value Management Reporting
- Manage all national media coverage opportunities
- Be available to provide guidance and leadership to the Sub-Recipients

b. Sub-Recipient's Responsibilities: Sub-Recipient is responsible to
- Provide Project Review Board Participant
- Execute attached Subproject Description/scope of work within approved budget and schedule
- Complete reporting identified in the reporting requirements checklist on time
- Track sub-project management performance metrics such as milestone status
- Continually participate in identifying risks related to scope of work
- Manage all local media coverage opportunities; and maintain record on SharePoint

9. Key Personnel The following named personnel was identified in the proposed response to the FOA, and shall not be replaced without the prior written notification of the Battelle Contract Representative.

Rick Dunn and Blake Scherer

10. Reporting Requirements: The reporting requirements of this Agreement are identified in the Reporting Requirements checklist attached as content to this Agreement. Failure to comply with these reporting requirements is considered a material noncompliance with the terms of this agreement. Noncompliance may result in withholding of future payments, suspension, or termination of the current agreement as it is required by Battelle's Cooperative Agreement with the DOE.

11. Subcontracts and procurements. All such transactions shall be conducted in a manner to provide, to the maximum extent practical, open and free competition.

12. Agreement Contents: In addition to this Schedule, the Agreement consists of:

- Subproject Technical Summary and Statement of Work, dated 3/9/2010
- General Provisions – Utility Sub-recipients Special Cooperative Agreement 2/2010
- Special Provisions Relating To Work Funded Under American Recovery and Reinvestment Act of 2009
- Reporting Requirements Checklist
- Project Management Plan

13. Integration: The Agreement contains the entire understanding between the parties, and there are no understandings or representations not set forth or incorporated by reference herein. No subsequent modifications of this agreement shall be of any force or effect unless in writing signed by the both parties. No communications, written or oral, by other than a Battelle Contract Representative shall be effective to modify or otherwise affect the provisions of the agreement.

III SIGNATURES

BATTELLE MEMORIAL INSTITUTE
PACIFIC NORTHWEST DIVISION

By Sheena Kanyid
Sheena Kanyid
Contracting Officer
Date 4/22/2010

BENTON PUBLIC UTILITY DISTRICT

By [signature]
Title General Manager
Date 4/21/10

Subproject Technical Summary and Statement of Work

Utility Name: Benton P.U.D.("the utility")
Revision: 1.0
Utility Point of Contact: Blake Scherer
Date: 3/9/2010

General

Schedule. All of the activities referenced in this document will adhere to the 5-year, four-phase schedule defined by the Pacific Northwest Smart Grid Demonstration ("the regional demonstration") that these utility activities ("the subproject") support. The subproject activities are scheduled as shown in this table:

Phase	Phase Title	Months	Subproject Activities
1	Concept Design and Baseline Functionality	1-6	Complete conceptual plan and design of asset installations, initial nodes, and asset responses.
2	Detailed Design, Testing, and Implementation	7-30	Finalize plans and designs. Procure, install, and test responsive assets.
3	Data Collection and Analysis and Enhanced Releases	31-54	Operate and collect operational data from responsive assets. Extend node structure. Improve responsiveness of assets.
4	Cost-Benefit Analysis Reporting and Project Closeout	55-60	Support regional demonstration analysis. Conduct analysis of subproject data. Transition asset control to permanent host and site. Close out subproject.

A detailed subproject schedule has been attached as Appendix A.

The utility will adhere to the above schedule for the provision of the responsive assets to be listed in this document with these exceptions: none

Technical Participation. The utility will participate in weekly technical meetings that are to be organized by the regional demonstration's principal investigator and conducted by phone. The utility will host infrequent (quarterly or less) visits from regional demonstration personnel.

Regional Demonstration Committee Participation. The utility shall actively participate in the efforts of a cyber security committee to be led by the regional demonstration. The utility shall actively participate in interoperability efforts conducted by the regional demonstration.

Subproject Site Summary

1. Reata

Please refer to Appendix B for a map showing the location and boundary of the site.

Reata Subproject Site

Reata Site Summary

Initial Node Description and Location. The initial node for the Reata subproject site is the Reata substation that is owned by Benton P.U.D. and is located at 91000 E. Reata Rd. in Kennewick, WA 99338. This node is a natural interface between Benton P.U.D. and Bonneville Power Administration (BPA) and supplies energy to all the responsive assets listed below for this site.

Plan for Adding New Nodes to this Initial Node. During demonstration project phase 3, the initial node structure at this site will be extended downstream by including the substation recloser positions associated with the four 12.47 kV feeder circuits leaving Reata substation and at least one customer meter location.

The initial node structure will be extended upstream by including, subject to BPA's approval, the 115-kV breaker positions serving Benton P.U.D. from BPA's McNary, Franklin and Badger Canyon substations.

Constraints, if any, to be Addressed at this Node. This initial node never exceeds the power transformer's winter normal service rating of 26.7 MVA or its winter emergency rating of 32.0 MVA. While there are currently no constraints to be addressed at this node, energy supplied by the node will be fractionally reduced through dispatching of the Demand Shifter stored energy devices. The algorithm to affect the value signal and achieve this described response at this node will reside within the DataCatcher.

Initial Plan to Predict and Aggregate Energy Consumption at this Node. The entire electrical load supplied through this node will initially be aggregated by collecting KYZ pulses from, or communicating directly to, the BPA meter located at Reata substation. The initial method to predict the load 2 days into the future will require a complete set of past data for at least 2 weeks at hourly intervals. This initial minimum requirement can be improved upon as more data is available. The shape of the load for the hour two days in the future is based upon the two previous similar days of the week. For example the Monday is based on a weighted average of the previous two Mondays. The load shape is further adjusted by the previous 24 hours compared to the 8 days ago weighted and smoothed. This is a prediction of the degree days forecast and could be replaced with an actual forecast if a weather data service were used. A shorter term prediction of the next hour in 5-minute increments will be done in a similar manner, except that much more weight is given to recent error values.

The utility's assumptions are that the predicted future horizon will be no greater than 2 days into the future and that measurement intervals will range from 5 minutes in the present and near future to 1 hour or more in the distant predicted future.

The methodology used to predict aggregate energy consumption at this initial node and the data itself will be made openly available to the regional demonstration and its participants during the term of the regional demonstration.

Plan to Improve Prediction and Aggregation of Energy Consumption at this Node. During Phase 3 of the demonstration, the initial approach described above for the prediction of electrical load to be supplied through this node can be improved over time when more data is available. This would improve the predictive ability over events such as holidays. The idea would be to predict the shape of the load curve in various ways. Each method would be viable on its own but by using the best predictor over the last several periods the best performing curve could be used as the base curve and would be more likely to yield better predictions. To fully implement such a plan, a year of data would be required, although it could be improved upon with as little as 2-3 months of data. Another way to improve the predictions is by monitoring each feeder in the substation and predicting the load on each. Then the aggregate substation load prediction would be the sum of each feeder prediction and would tend to be more accurate as usage patterns would be easier to predict on a feeder basis than the substation as an aggregate.

Description of Initial Transactive Communication between Utility Assets and the Northwest Region at this Initial Node. The demonstration's transactive value signal and predicted aggregate load at this node will be exchanged at the DataCatcher server (see DataCatcher asset), residing at either the utility headquarters or an offsite host location, via the best available communication media and protocol, as determined by the utility, RAI and Battelle. The DataCatcher will act as the interface for transactive communication between the utility's assets and the project.

The nodal, transactive value signal itself and methodology used to modify the signal at this initial node will be openly available to the regional demonstration and its participants during the term of the regional demonstration.

Testing of the Transactive Interface at this Initial Node. The utility will accommodate and support efforts by the regional demonstration to establish and test the conformity of the exchange of transactive value and aggregate load signals at this initial load. The utility will make available to the regional demonstration the secure means by which the utility actuates the set of responsive assets that are supplied through this initial node. The utility will provide necessary access to the regional demonstration as might be needed to establish and test the communication of the regionally communicated signals. The utility will work together with the regional demonstration to collect and store data that will be adequate to support local and regional analysis according to the needs that will become described in the demonstration's Data Collection and Analysis Plan that is to be created during phases 1 and 2. The utility will establish further transactive behaviors to responsive assets and downstream nodes only as is described below for each responsive asset at this initial node. The regional demonstration will otherwise establish and test the communication between the regional demonstration and this initial node.

What Steps will be Taken to Keep this Node Functioning after the Demonstration is Completed? If the transactive control that the regional demonstration establishes to this node is to endure beyond the term of the regional demonstration, the utility will need to determine that the installation of stored energy devices at a utility scale (megawatt) is an economically viable solution for firming wind and/or managing peak demand and/or improving energy efficiency. It is important that BPA must support and participate throughout the demonstration by developing the power market incentives (rate case) for the utility and provisioning the interoperable systems for transactive control..During phase 4 of the regional demonstration, the responsibility for sending the value signal will need to be transferred from Battelle to BPA.

Summary of Reata Site Assets

1. DataCatcher™
2. Demand Shifter™

DataCatcher™ Asset

Asset Description. The utility will procure and install the DataCatcher software from Resource Associates International, Inc. (RAI) to provide an integrated distribution automation system. The DataCatcher will provide a web-browser and web-services platform for acquiring data from a variety of existing and new intelligent electronic devices (IEDs), an existing Sensus Flexnet two-way wireless AMI system and an existing Survalent SCADA system. The IED Data will be derived from meters and controls associated with six voltage regulators, eight reclosers and six capacitor banks located at the Reata substation site and Reata distribution feeders.

Local Control Objective(s) for Asset. Demonstrate how a web-browser and web-services environment can be used to provide secure, universal access to integrated, time synchronized and regularly acquired substation, distribution feeder and customer power and status data. Demonstrate how the web-browser environment can provide a platform to develop role-based interfaces to a common database depending on individual user's various needs. Demonstrate that provisioning access to Smart Grid data through a secure but familiar and easy to use interface, available from any internet-enabled personal computer, will improve utility distribution feeder operations as well as planning and analysis processes resulting in reduced feeder losses, optimized feeder voltages and overall improvement in the quality of electric service provided to utility customers.

How Asset is to be Controlled Locally. The DataCatcher will be configured to respond automatically to transactive control signals. The method for communicating data from IEDs to the DataCatcher will include RAI's EtherServe RTU and EtherAMR technology, existing SCADA methods, and fiber-optic lines and radio via the utility's broadband network. The utility will also test distribution automation equipment via an existing Sensus FlexNet AMI system.

Utility Valuation of Asset Response. The utility shall assign a value or benefit to the described control of this asset as follows: the utility recognizes that Smart Grid is essentially a massive and complex system and data integration project that requires disparate systems and large amounts of data to operate together to create actionable information. The utility also recognizes the need to develop new business models, project management skills and the intellectual capacity to support the complex system integration that is required for Smart Grid to become a reality. This is going to have to occur both at the local utility level and at the BPA level. Internal business processes and inter-company business relationships need to be pushed to new levels for Smart Grid to happen, and the utility believes the "data brokering" solution proposed will provide a platform for this to occur. Furthermore, using the DataCatcher to broker data and create actionable information from our SCADA and AMI systems and other IEDs will be valuable for improving the operation and efficiency of the distribution system.

While it may be difficult to assign a value to some of the benefits described above, there is an expectation that the DataCatcher's web-based interface will reduce man hours related to data collection and analysis in support of design and operation functions. In addition, the utility expects to operate the distribution system more efficiently, resulting in reduced system losses, reduced energy usage and improved asset utilization. Each of these items represents possible reductions in labor, material and energy costs that will be used to develop a business case for expansion of the system.

The utility will openly share with the regional demonstration its valuation and the methodology used for its valuation of this asset's response. The utility will support regional and DOE efforts to measure and collect such benefits that support regional and national cost-benefit analysis for this asset type.

Utility Subcontract(s). The utility will subcontract with Resource Associates International (RAI) for providing the DataCatcher software, some communications hardware, and integration support and related consulting services.

The utility will report the progress of this subcontract to the regional demonstration.

Asset Response Magnitude. This asset is available to facilitate response to the regional transactive control value signal as described below for the Demand Shifter asset.

Customer Incentives. None.

Functional Testing Plan for this Responsive Asset. The response of this asset will be tested or confirmed by the methods required for testing the regional transactive signal, as described above for the initial node.

Regional Interaction being Offered from this Asset. This asset is available to facilitate response to the regional transactive control value signal as described below for the Demand Shifter asset.

Initial Plan to Predict and Aggregate Energy Consumption by, or Supply from, this Asset. Refer to initial node plans.

The methodologies used for and all data resulting from the prediction and aggregation of data concerning this responsive asset will be made openly available to the demonstration and its participants during the term of the demonstration.

Plan for Obtaining Richer Interactions with this Asset. The DataCatcher's facilitation of the response to the regional transactive value signal will be improved during regional demonstration phase 3 as required to support the desire for richer interactions with the Demand Shifter assets and as required to support the plans to improve prediction and aggregation of energy consumption as described at the site level.

Statement of Deficiencies or Services Requested to be Provided by the Regional Demonstration Project toward the Provision of this Responsive Asset.

None.

Incentives Needed by the Utility for Regional Control of this Responsive Asset.

None.

Demand Shifter™ Asset

Asset Description. The utility will procure and install four Demand Energy Networks 1-kW Demand Shifter stored energy devices to be located at four customer locations associated within the distribution feeder circuits of Reata substation.

Local Control Objective(s) for Asset. These responsive assets will be controlled by the utility to demonstrate that the Demand Shifter technology can be used to time shift wind energy for optimizing the utilization of wind power production and for flattening the demand curve by dispatching the stored energy during peak load periods.

How Asset is to be Controlled Locally. The asset will be configured to respond automatically to transactive control signals. When a regional value signal encouraging consumption of wind resources is received by the asset it will charge the Demand Shifter batteries to store energy. The energy will be discharged to manage peak demand measured and predicted at the initial node. This asset will be controlled locally by the utility via the DataCatcher operating in conjunction with either the utility's wireless broadband system or commercially available internet protocol based communication methods. The Demand Shifter is controlled locally in case of intermittent network problems. It will continue to operate as scheduled if the network is taken down. The schedules of all demand shifters in the system are controlled by the DataCatcher they report to. At any time the planned schedule can be overridden if needed. The DataCatcher will update the schedules as the forecast improves so it will run at the best time possible even if the network drops out.

Utility Valuation of Asset Response. The utility shall assign a benefit to the described control of this asset based on the dollar per kilowatt value of firming capacity as determined by the utility's power scheduling entity, The Energy Authority (TEA).

The utility will openly share with the regional demonstration its valuation and the methodology used for its valuation of this asset's response. The utility will support regional and DOE efforts to measure and collect such benefits that support regional and national cost-benefit analysis for this asset type.

Utility Subcontract(s). The utility will subcontract with Demand Energy Networks for the provision, installation, and management of this asset and with Resource Associates International (RAI) for integration to the DataCatcher.

The utility will report the progress of this subcontract to the regional demonstration.

Asset Response Magnitude. When this asset is engaged, the utility expects approximately 1 kW in response from each unit for a total response of 4kW.

Customer Incentives. Utility customers may be provided an incentive for participating in the demonstration of the Demand Shifter. An incentive has not been determined at this time.

Functional Testing Plan for this Responsive Asset. The response of this asset will be tested or confirmed by correlating the Demand Shifter's charging cycle with the timing of the demonstration's regional wind-ramping value signal and correlating the Demand Shifter's discharging cycle with the timing of the initial node's peak demand. The data for monitoring the asset status and load data over time will be accumulated in the DataCatcher.

Regional Interaction being Offered from this Asset. This asset is available to respond to the regional transactive control value signal as a fully price-transactive asset.

Initial Plan to Predict and Aggregate Energy Consumption by, or Supply from, this Asset. The load consumed or supplied by this asset will be metered by the customer's existing Sensus FlexNet AMI meter and also locally at the Demand Shifter using RAI's EtherRTU technology. Both metering points will be communicating to the DataCatcher. Initially, the consumption and supply from this responsive asset will be predicted, including the price elasticity of its response, based on a suitable method to be determined.

The methodologies used for and all data resulting from the prediction and aggregation of data concerning this responsive asset will be made openly available to the demonstration and its participants during the term of the demonstration.

Plan for Obtaining Richer Interactions with this Asset. The response of this asset to the regional transactive value signal will be improved during regional demonstration phase 3 by dispatching at least one of the stored energy devices in response to peak demand at the point of application rather than at the initial node. In addition, at least one additional stored energy device will be enhanced to respond to a regional wind value signal that has been modified by the utility to encourage wind energy consumption associated with Energy Northwest's Nine Canyon Wind Farm, for which the utility has local data available.

Statement of Deficiencies or Services Requested to be Provided by the Regional Demonstration Project toward the Provision of this Responsive Asset.

The geography and electrical network associated with the Reata subproject site and the Nine Canyon Wind Farm may provide a unique opportunity for the project to create a complete nodal hierarchy between a regional wind farm and a utility site. The utility expects the regional demonstration to incur any additional costs determined to be outside the utility's budget that will be associated with the project's goal of provisioning a complete nodal hierarchy between the Reata subproject site and the Nine Canyon Wind Farm.

Incentives Needed by the Utility for Regional Control of this Responsive Asset.

None.

General Provisions - Utilities

Battelle Memorial Institute, Pacific Northwest Division, has entered into Use Permit Agreement DE-GM05-00RL01831 with the United States Department of Energy to perform the work specified herein at the Pacific Northwest National Laboratory, in Richland, Washington, which may require the use of facilities and equipment which belong to the U.S. Government. This Cooperative Agreement is entered into under the authorization and restrictions of that agreement, which may be reviewed at www.battelle.org/products/contracts/BattelleUsePermit.doc.

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Acceptance of Cooperative Agreement Terms and Conditions *(cl. 302 - Oct 2008)*

The Sub-recipient, by signing this Cooperative Agreement or performing the services and/or delivering the supplies identified herein, agrees to comply with all the terms and conditions and all specifications and other documents that this Cooperative Agreement incorporates by reference or attachment.

Order of Precedence *(cl. 309B –Aug 2009)*

This Cooperative Agreement represents the entire agreement of the Parties and supersedes any prior discussions or understandings, whether written or oral, relating to the subject matter hereof. In case of any conflict or inconsistency the following order of precedence shall apply:

A. The Schedule (excluding the specifications or statement of work)
B. General Provisions of this Cooperative Agreement
C. Other documents, exhibits, and attachments
D. The specifications or statement of work

Cooperative Agreement Changes *(cl. 346B – Aug 2009)*

A. The Battelle Contracts Representative may, by written notice, make changes within the general scope of this Cooperative Agreement to any one or more of the following:

   1. description of services
   2. drawings, designs, or specifications
   3. method of shipping or packing
   4. place of inspection, acceptance, or point of delivery
   5. time of performance
   6. place of performance

B. If any such change causes a change in the labor mix, or the time required for performance of any part of this Cooperative Agreement, Sub-recipient may request an equitable adjustment in this Cooperative Agreement price and/or delivery schedule.

C. Sub-recipient must request any equitable adjustment within 14 calendar days of receipt of the written change. If the Sub-recipient's change/equitable adjustment proposal includes the cost of property made obsolete or excess by the change, Battelle shall have the right to prescribe the manner of disposition of the property.

However, nothing contained in this "Changes" clause shall excuse Sub-recipient from proceeding without delay in the performance of this Cooperative Agreement as directed.

Cooperative Agreement Administration *(cl 384 - Jan 1986)*

A. The Sub-recipient's progress and compliance with the technical requirements of this Cooperative Agreement may be monitored for Battelle by a Technical Administrator. The name of the Technical Administrator, if one is designated, will be furnished the Sub-recipient by the Battelle Contracts Representative.

B. The Battelle Technical Administrator is authorized to receive information, conduct inspections of work in process and witness Sub-recipient tests. He/she has no authority to (1) change or waive any provision of this Cooperative Agreement, including but not limited to statements of work, drawings, specifications and standards, whether attached or incorporated by reference; (2) provide interpretations of any provision or requirement of this Cooperative Agreement; (3) direct, advise, or recommend any particular course of conduct on the part of the Sub-recipient; or (4) create any legally binding commitment on behalf of Battelle.

C. The Sub-recipient is solely responsible for strict compliance with all requirements of this Cooperative Agreement. No notice, communication or representation in any form or from any person other than a Battelle Contracts Representative shall be effective to relieve the Sub-recipient of such obligation or to stop Battelle from enforcing the Cooperative Agreement exactly according to its written terms.

Confidentiality *(cl. 313B - Aug 2009)*

Sub-recipient and its employees shall maintain in confidence information received from Battelle and/or generated by Sub-recipient including but not limited to, proposals, specifications, business and marketing plans, test plans, protocols, test results, results of analysis, project notebooks, project documentation, notebooks, and other technical, business, proprietary and trade secret information. Sub-recipient agrees that all employees, Sub-recipients, consultants, or agents working under this Cooperative Agreement shall comply with these obligations of confidentiality. Notwithstanding any provision to the contrary herein, this provision shall not prohibit the disclosure of the above described information pursuant to the Washington Public Records Act or pursuant to Court or regulatory agency order or process, so long as Sub-recipient informs Battelle of such request prior to disclosure.

Communication with Client (Department of Energy) *(cl. 314B - Aug 2009)*

Battelle shall be solely responsible for all liaison and coordination with Client. Under no circumstances will Sub-recipient act upon directions given to it by representatives of Client. If Sub-recipient receives such directions for a representative of Client, Sub-recipient will notify the Battelle Contracts Representative as soon as possible and obtain written authorization from Battelle before taking any action based upon Client's directions. Battelle will not be liable for the cost of work done by Sub-recipient without written authorization by the Battelle Contracts Representative.

Assignment *(cl. 357B - Aug 2009)*

Battelle may assign this Cooperative Agreement to the Client or a designee of the Client. Upon receipt by the Sub-recipient of written notice that the Client or its designee has been assigned this Cooperative Agreement, Battelle shall be relieved of all responsibility hereunder, and the Sub-recipient shall thereafter look solely to the assignee for performance of Battelle's obligations.

Unless assignment is made to a wholly owned subsidiary, the Sub-recipient shall not assign this Cooperative Agreement or any interest therein, nor money due or to become due, nor claims thereunder without the prior written consent of Battelle or Battelle's assignee. Any assignment, by operation of law or otherwise, without prior written consent of Battelle or Battelle's assignee shall be void.

Insurance Requirements *(cl. 378C, Jan 2009)*

Unless otherwise specified in the Cooperative Agreement Schedule, this clause applies to service work specified by this Cooperative Agreements and when Sub-recipients will be driving or operating Battelle-owned or government-owned vehicles or boats.

A. Sub-recipient shall purchase and maintain during the term of this Cooperative Agreement, at its own expense, and any extensions thereof, insurance in amounts reasonable and customary for the industry in which Sub-recipient is engaged. Sub-recipient shall maintain all insurance which is required by any law, statute, ordinance, or regulation of any jurisdiction having authority in whole or in part over the Sub-recipient's operations or Cooperative Agreement activities, including without limitation any non-U.S. jurisdictions. Nevertheless, the following minimum insurance coverage shall be maintained:

Coverage	Limits
1. Worker's Compensation	Statutory
2. Employer's Liability	$1,000,000 per occurrence
3. Commercial General Liability	$3,000,000 per occurrence (Including Contractual, and Products and Completed Operations Liability)
4. Business Auto Liability	$1,000,000 per occurrence (Owned and Non-owned)
5. Professional Liability Insurance	$3,000,000 per occurrence

6. Property Insurance — Full replacement value covering any and all supplies and equipment owned by Battelle or Client which is under the control of Sub-recipient

7. Any other insurance which may be required by Battelle or Client.

B. Battelle shall be designated as an Additional Insured under the Commercial General Liability, Business Auto Liability, and any Umbrella coverages. Sub-recipient's insurance shall be primary and non-contributing over any and all insurance that may be maintained by Battelle. Sub-recipient and its insurer(s) shall waive all rights of subrogation against Battelle, its officers, directors, agents, trustees and employees.

C. Sub-recipient shall furnish to Battelle Certificates of Insurance evidencing compliance with the insurance requirements herein. These certificates shall provide for at least 30 days prior written notice to Battelle of any cancellation, non-renewal, or material reduction in coverage. These certificates shall be provided prior to the initiation of Cooperative Agreement activities and upon each policy renewal for a total of three years after termination or expiration of this Cooperative Agreement. Failure of Battelle to notify Sub-recipient of any non-compliance with the provisions of this Cooperative Agreement shall not constitute a waiver of Sub-recipient's obligations under this Cooperative Agreement. Battelle does not warrant or represent that the minimum amounts of coverage required are sufficient to protect the Sub-recipient in fulfilling its obligations under this Cooperative Agreement. Such minimum insurance limits shall not limit Sub-recipient's liability under this Cooperative Agreement. Sub-recipient shall require any lower-tier subcontractors to satisfy the requirements of this provision.

Disclaimer *(cl. 3518 - Aug 2009)*

In no event shall either Sub-recipient or Battelle be liable for any special, incidental, or consequential damages of any type or nature.

Compliance with Laws *(cl. 31218 - Aug 2009)*

Sub-recipient shall comply with all applicable Federal, State and local laws and regulations, including, but not limited to, all applicable laws and regulations relating to business ethics, protection of the environment, occupational safety and health, equal opportunity and non-discrimination, the Immigration Reform and Control Act and the Fair Labor Standards Act. Sub-recipient will indemnify and hold Battelle and its trustees, officers, employees and representatives harmless from and against any claims, demands, suits, losses, damages, costs and expenses arising out of any non-compliance, violation or alleged non-compliance or violation by Sub-recipient of any such laws, regulations and/or ordinances.

Warranty *(cl. 3830 - Aug 2009)*

A. **Goods:** Sub-recipient warrants that all goods furnished under this Cooperative Agreement will be free from defects for a period of one (1) year from final acceptance by Battelle or for the standard warranty period provided by Sub-recipient, whichever is longer, will conform with all requirements of this Cooperative Agreement, and, unless manufactured solely in accordance with Battelle-certified manufacturing designs, will be free from defects in design. Any goods corrected or replaced will be covered by this warranty. Sub-recipient agrees to notify Battelle immediately upon becoming aware of a potential problem with goods previously delivered to Battelle. Such notification shall include a recommended course of action.

B. **Services:** Sub-recipient warrants that all services performed under this Cooperative Agreement will be performed with the standard of a fully qualified professional, be free from defects, conform to the requirements of the Cooperative Agreement, and be performed in strict compliance with any regulatory or international standards specified in the Statement of Work for this Cooperative Agreement. Any services corrected or re-performed will be covered by this warranty.

C. The warranties provided in Paragraphs A and B above shall apply unless a more extensive warranty(s) is/are specified as in the Government Clauses, or regularly offered by Sub-recipient, in which case the greater warranty shall apply.

D. If Sub-recipient breaches any warranty, Battelle may elect, at its sole discretion and with no increase in the Cooperative Agreement price, to:

1. Require Sub-recipient either to repair or replace, at the Battelle election, defective or nonconforming goods promptly; or
2. Require Sub-recipient promptly to furnish materials or parts and installation instructions required to successfully accomplish the correction of defective or nonconforming goods, and equitably reduce the Cooperative Agreement price to account for the cost of correction including, without limitation, removal and installation; or
3. Require Sub-recipient to promptly redesign defective or nonconforming goods and require Sub-recipient promptly to repair or replace goods manufactured in accordance with such defective design; or
4. Require Sub-recipient either to correct or re-perform, at the Battelle election, defective or nonconforming services promptly; or
5. Equitably reduce the Cooperative Agreement price; or
6. Correct or have corrected the nonconformity at Sub-recipient's expense.

Inspection *(cl. 379F - Aug 2009)*

Battelle shall have the right, at all reasonable times with reasonable advance notice, to inspect or otherwise evaluate the technical work performed or being performed hereunder.

Use of Names *(cl. 374B Aug 2009)*

Both Battelle and the Sub-Recipient agrees not to use the other's name or identifying characteristics for advertising, sales promotion, raising of capital, recommending investments or other publicity purposes that implies endorsement by each other without the prior consent of the other. This clause shall survive the termination or expiration of this Cooperative Agreement.

Independent Organization *(cl. 358B - Aug 2009)*

Sub-recipient is an independent organization and not an employee, agent, or representative of Battelle. Sub-recipient shall be solely responsible for all employment-related wages, benefits, FICA, federal and state unemployment and other taxes and payments as required by law, for itself and any persons it employs. Sub-recipient shall be solely responsible for its own financial obligations to third parties and to its employees and Sub-recipients. Further, Sub-recipient agrees that it shall not be covered by any Battelle insurance or benefits. Sub-recipient shall protect, defend and hold Battelle harmless from any claims or penalties asserted or assessed against Battelle by any person or governmental entity relating to Sub-recipient's responsibilities under this clause.

Excusable Delays *(cl. D-69 - Feb 2007)*

The Sub-recipient shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Sub-recipient and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Sub-recipient shall notify the Battelle Contracts Representative in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Battelle Contracts Representative of the cessation of such occurrence. Such an excusable delay may result in an extension of the Cooperative Agreement completion date but will not result in additional funding.

Stop Work *(cl.380 - July 2009)*

Battelle shall have the right to issue a stop-work notice in accordance with the procedures set forth in FAR 52.242-15.

Final Invoice *(cl. 350B - Aug 2009)*

Sub-recipient shall submit a final invoice, designated as such, promptly upon completion of the work, but no later than six (6) months, (or longer, as Battelle may approve in writing) from the completion date. Upon approval of that final invoice and upon Sub-recipient's compliance with all terms of this Cooperative Agreement and this provision, Battelle shall promptly pay the balance of allowable costs and that part of the fee (if any) not previously paid.

Sub-recipient shall pay to Battelle any refunds, rebates, credits or other amounts (including interest, if any) accruing to or received by Sub-recipient or any assignee under this Cooperative Agreement to the extent that those amounts are properly allocable to costs for which Sub-recipient has been reimbursed by Battelle. Reasonable expenses incurred by Sub-recipient for securing refunds, rebates, credits or other amounts shall be allowable costs if approved by Battelle.

Survivability *(cl. 394B - Aug 2009)*

If this Cooperative Agreement expires, is completed, or is terminated, Sub-recipient shall not be relieved of those obligations contained in the following provisions:

- Compliance with Laws
- Independent Sub-recipient
- Insurance (as applicable)
- Intellectual Property
- Recipient/Sub-recipient Name
- Audit (as applicable)
- Warranty (as applicable)

Notice of Debarment or Suspension *(cl. 361B - Aug 2009)*

Sub-recipient shall provide immediate notice to the Battelle Contracts Representative in the event of being suspended, debarred, or declared ineligible by any agency or Department of the U.S. Government, or upon receipt of notice of proposed debarment from any agency or department of the U.S. Government, during the performance of this Cooperative Agreement.

Miscellaneous *(cl. 315B - Aug 2009)*

A. If any part of this Cooperative Agreement shall be held invalid or unenforceable, such invalidity and unenforceability shall not affect any other part of this Cooperative Agreement. Captions used as headings in this Cooperative Agreement are for convenience only and shall not be deemed to limit or otherwise affect the construction of any provision hereof.

B. The rights and remedies of Battelle set forth in this Cooperative Agreement are cumulative and are in addition to any other rights or remedies that Battelle may have at law and/or in equity.

Flow downs from 10CFR600 by reference and NETL/Battelle Agreement

Retention and access requirements for records 10CFR600.153
Termination 10CFR600.161

Appendix A to Subpart B Contract Provisions
Equal Employment Opportunity

Copeland 'AntiKickback' Act
Davis-Bacon Act as amended
Contract Work Hours and Safety Standards Act
Rights to Inventions Made under a Cooperative Agreement or Agreement
Clean Air Act
Byrd Anti – Lobbying Amendment
Debarment and Suspension

Intellectual Property 10CFR600 Subpart C or D as applicable to Sub-Recipients organization type
Patent and Data Provisions 10CFR600 Subpart D as applicable to Sub-Recipients organization type

Property 10CFR600.130 – 137, 10CFR600.231-233 or 10CFR600.320 – 324 as applicable to Sub-Recipients Organization type

PROPERTY

Real property, and equipment acquired by the Recipient shall be subject to the rules set forth in 10 CFR 600.130-137, 10 CFR 600.231-233, or 10 CFR 600.320-324 as applicable.

Consistent with the goals and objectives of this project, the Recipient may continue to use Recipient acquired property beyond the Period of Performance, without obligation, during the period of such use, to extinguish DOE's conditional title to such property as described in 10 CFR 600.132-135, 10 CFR 600.231-233, 600.321-324, subject to the following: (a) the Recipient continues to utilize such property for the objectives of the project as set forth in the Statement of Project Objectives; (b) DOE retains the right to periodically ask for, and the Recipient agrees to provide, reasonable information concerning the use and condition of the property; and (c) the Recipient follows the property disposition rules set forth in the applicable sections of 10 CFR Part 600, if the property is no longer used by the Recipient for the objectives of the project, and the fair market value of property exceeds $5,000.

Once the per unit fair market value of the property is less than $5,000, pursuant to the applicable sections of 10 CFR Part 600, DOE's residual interest in the property shall be extinguished and Recipient shall have no further obligation to the DOE with respect to the property.

The regulations as set forth in 10 CFR Part 600 and the requirements of this article shall also apply to property in the possession of any team member, sub-recipient or other entity where such property was acquired in whole in part with funds provided by DOE under this grant or where such property was counted as cost-sharing under the grant.

Publications requirements

PUBLICATIONS

a. You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

b. An acknowledgment of Federal support and a disclaimer must appear in the publication of any material, whether copyrighted or not, based on or developed under this project, as follows:

Acknowledgment: "This material is based upon work supported by the Department of Energy under Award Number DE-OE0000190."

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."

SPECIAL PROVISIONS RELATING TO WORK FUNDED UNDER AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (Mar 2009)

Preamble

The American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (Recovery Act) was enacted to preserve and create jobs and promote economic recovery, assist those most impacted by the recession, provide investments needed to increase economic efficiency by spurring technological advances in science and health, invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits, stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive State and local tax increases. Recipients shall use grant funds in a manner that maximizes job creation and economic benefit.

The Recipient shall comply with all terms and conditions in the Recovery Act relating generally to governance, accountability, transparency, data collection and resources as specified in Act itself and as discussed below.

Recipients should begin planning activities for their first tier subrecipients, including obtaining a DUNS number (or updating the existing DUNS record), and registering with the Central Contractor Registration (CCR).

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related guidance. For projects funded by sources other than the Recovery Act, Contractors must keep separate records for Recovery Act funds and to ensure those records comply with the requirements of the Act.

The Government has not fully developed the implementing instructions of the Recovery Act, particularly concerning specific procedural requirements for the new reporting requirements. The Recipient will be provided these details as they become available. The Recipient must comply with all requirements of the Act. If the recipient believes there is any inconsistency between ARRA requirements and current award terms and conditions, the issues will be referred to the Contracting Officer for reconciliation.

Definitions

For purposes of this clause, Covered Funds means funds expended or obligated from appropriations under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5. Covered Funds will have special accounting codes and will be identified as Recovery Act funds in the grant, cooperative agreement or TIA and/or modification using Recovery Act funds. Covered Funds must be reimbursed by September 30, 2015.

Non-Federal employer means any employer with respect to covered funds -- the contractor, subcontractor, grantee, or recipient, as the case may be, if the contractor, subcontractor, grantee, or recipient is an employer; and any professional membership organization, certification of other professional body, any agent or licensee of the Federal government, or any person acting directly or indirectly in the interest of an employer receiving covered funds; or with respect to covered funds received by a State or local government, the State or local government receiving the funds and any contractor or subcontractor receiving the funds and any contractor or subcontractor of the State or local government; and does not mean any department, agency, or other entity of the federal government.

Recipient means any entity that receives Recovery Act funds directly from the Federal government (including Recovery Act funds received through grant, loan, or contract) other than an individual and includes a State that receives Recovery Act Funds.

Special Provisions

A. Flow Down Requirement

Recipients must include these special terms and conditions in any subaward.

B. Segregation of Costs

Recipients must segregate the obligations and expenditures related to funding under the Recovery Act. Financial and accounting systems should be revised as necessary to segregate, track and maintain these funds apart and separate from other revenue streams. No part of the funds from the Recovery Act shall be commingled with any other funds or used for a purpose other than that of making payments for costs allowable for Recovery Act projects.

C. Prohibition on Use of Funds

None of the funds provided under this agreement derived from the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may be used by any State or local government, or any private entity, for any casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool.

D. Access to Records

With respect to each financial assistance agreement awarded utilizing at least some of the funds appropriated or otherwise made available by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, any representative of an appropriate inspector general appointed under section 3 or 8G of the Inspector General Act of 1988 (5 U.S.C. App.) or of the Comptroller General is authorized --

(1) to examine any records of the contractor or grantee, any of its subcontractors or subgrantees, or any State or local agency administering such contract that pertain to, and involve transactions that relate to, the subcontract, subcontract, grant, or subgrant; and

(2) to interview any officer or employee of the contractor, grantee, subgrantee, or agency regarding such transactions.

E. Publication

An application may contain technical data and other data, including trade secrets and/or privileged or confidential information, which the applicant does not want disclosed to the public or used by the Government for any purpose other than the application. To protect such data, the applicant should specifically identify each page including each line or paragraph thereof containing the data to be protected and mark the cover sheet of the application with the following Notice as well as referring to the Notice on each page to which the Notice applies:

Notice of Restriction on Disclosure and Use of Data
The data contained in pages ---- of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data here to the extent provided in the award. This restriction does not limit the Government's right to use or disclose data obtained without restriction from any source, including the applicant.

Information about this agreement will be published on the Internet and linked to the website www.recovery.gov, maintained by the Accountability and Transparency Board. The Board may exclude posting contractual or other information on the website on a case-by-case basis when necessary to protect national security or to protect information that is not subject to disclosure under sections 552 and 552a of title 5, United States Code.

F. Protecting State and Local Government and Contractor Whistleblowers.

The requirements of Section 1553 of the Act are summarized below. They include, but are not limited to:

Prohibition on Reprisals: An employee of any non-Federal employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or other person working for the employer who has the authority to investigate, discover or terminate misconduct), a court or grand jury, the head of a Federal agency, or their representatives information that the employee believes is evidence of:

- gross mismanagement of an agency contract or grant relating to covered funds;
- a gross waste of covered funds;
- a substantial and specific danger to public health or safety related to the implementation or use of covered funds;
- an abuse of authority related to the implementation or use of covered funds; or
- as violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to covered funds.

Agency Action: Not later than 30 days after receiving an inspector general report of an alleged reprisal, the head of the agency shall determine whether there is sufficient basis to conclude that the non-Federal employer has subjected the employee to a prohibited reprisal. The agency shall either issue an order denying relief in whole or in part or shall take one or more of the following actions:

- Order the employer to take affirmative action to abate the reprisal.
- Order the employer to reinstate the person to the position that the person held before the reprisal, together with compensation including back pay, compensatory damages, employment benefits, and other terms and conditions of employment that would apply to the person in that position if the reprisal had not been taken.
- Order the employer to pay the employee an amount equal to the aggregate amount of all costs and expenses (including attorneys' fees and expert witnesses' fees) that were reasonably incurred by the employee for or in connection with, bringing the complaint regarding the reprisal, as determined by the head of a court of competent jurisdiction.

Nonenforceablity of Certain Provisions Waiving Rights and remedies or Requiring Arbitration: Except as provided in a collective bargaining agreement, the rights and remedies provided to aggrieved employees by this section may not be waived by any agreement, policy, form, or condition of employment, including any predispute arbitration agreement. No predispute arbitration agreement shall be valid or enforceable if it requires arbitration of a dispute arising out of this section.

Requirement to Post Notice of Rights and Remedies: Any employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, shall post notice of the rights and remedies as required therein. (Refer to section 1553 of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, www.Recovery.gov, for specific requirements of this section and prescribed language for the notices.).

G. RESERVED

H. False Claims Act

Recipient and sub-recipients shall promptly refer to the DOE or other appropriate Inspector General any credible evidence that a principal, employee, agent, contractor, sub-grantee, subcontractor or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity or similar misconduct involving those funds.

I. Information in Support of Recovery Act Reporting

Recipient may be required to submit backup documentation for expenditures of funds under the Recovery Act including such items as timecards and invoices. Recipient shall provide copies of backup documentation at the request of the Contracting Officer or designee.

J. Availability of Funds

Funds appropriated under the Recovery Act and obligated to this award are available for reimbursement of costs until September 30, 2015.

REPORTING AND REGISTRATION REQUIREMENTS UNDER SECTION 1512 OF THE RECOVERY ACT

(a) This award requires the recipient to complete projects or activities which are funded under the American Recovery and Reinvestment Act of 2009 (Recovery Act) and to report on use of Recovery Act funds provided through this award. Information from these reports will be made available to the public.

(b) The reports are due no later than ten calendar days after each calendar quarter in which the recipient receives the assistance award funded in whole or in part by the Recovery Act.

(c) Recipients and their first-tier recipients must maintain current registrations in the Central Contractor Registration (http://www.ccr.gov) at all times during which they have active federal awards funded with Recovery Act funds. A Dun and Bradstreet Data Universal Numbering System (DUNS) Number (http://www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

(d) The recipient shall report the information described in section 1512(c) of the Recovery Act using the reporting instructions and data elements that will be provided online at http://www.FederalReporting.gov and ensure that any information that is pre-filled is corrected or updated as needed.

REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS)--SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

(a) Definitions. As used in this award term and condition--

Designated country --(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom;

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or

(3) A United States-European Communities Exchange of Letters (May 15, 1995) country: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and United Kingdom.
Designated country iron, steel, and/or manufactured goods --(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a manufactured good that consist in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different manufactured good distinct from the materials from which it was transformed.

Domestic iron, steel, and/or manufactured good --(1) Is wholly the growth, product, or manufacture of the United States; or

(2) In the case of a manufactured good that consists in whole or in part of materials from another country, has been substantially transformed in the United States into a new and different manufactured good distinct from the materials from which it was transformed. There is no requirement with regard to the origin of components or subcomponents in manufactured goods or products, as long as the manufacture of the goods occurs in the United States.

Foreign iron, steel, and/or manufactured good means iron, steel and/or manufactured good that is not domestic or designated country iron, steel, and/or manufactured good.

Manufactured good means a good brought to the construction site for incorporation into the building or work that

has been--

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

Public building and public work means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) Iron, steel, and manufactured goods. (1) The award term and condition described in this section implements--

(i) Section 1605(a) of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111--5) (Recovery Act), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States; and

(ii) Section 1605(d), which requires application of the Buy American requirement in a manner consistent with U.S. obligations under international agreements. The restrictions of section 1605 of the Recovery Act do not apply to designated country iron, steel, and/or manufactured goods. The Buy American requirement in section 1605 shall not be applied where the iron, steel or manufactured goods used in the project are from a Party to an international agreement that obligates the recipient to treat the goods and services of that Party the same as domestic goods and services. This obligation shall only apply to projects with an estimated value of $7,443,000 or more.

(2) The recipient shall use only domestic or designated country iron, steel, and manufactured goods in performing the work funded in whole or part with this award, except as provided in paragraphs (b)(3) and (b)(4) of this section.

(3) The requirement in paragraph (b)(2) of this section does not apply to the iron, steel, and manufactured goods listed by the Federal Government as follows:

None

(4) The award official may add other iron, steel, and manufactured goods to the list in paragraph (b)(3) of this section if the Federal Government determines that--

(i) The cost of domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, and/or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the overall cost of the project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act. (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(4) of this section shall include adequate information for Federal Government evaluation of the request, including--

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(4) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, or manufactured goods shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other appropriate actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods.. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods other than designated country iron, steel, and/or manufactured goods is noncompliant with the applicable Act.

(d) Data. To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the applicant shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Items Cost Comparison

Description	Unit of measure	Quantity	Cost (dollars)*
Item 1:			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____
Item 2:			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____

[List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[*Include all delivery costs to the construction site.]

WAGE RATE REQUIREMENTS UNDER SECTION 1606 OF THE RECOVERY ACT

(a) Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of $2,000 for construction, alteration or repair (including painting and decorating).

(b) For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of Davis-Bacon requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.

RECOVERY ACT TRANSACTIONS LISTED IN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS AND RECIPIENT RESPONSIBILITIES FOR INFORMING SUBRECIPIENTS

(a) To maximize the transparency and accountability of funds authorized under the American Recovery and Reinvestment Act of 2009 (Pub. L. 111--5) (Recovery Act) as required by Congress and in accordance with 2 CFR 215.21 "Uniform Administrative Requirements for Grants and Agreements" and OMB Circular A--102 Common Rules provisions, recipients agree to maintain records that identify adequately the source and application of Recovery Act funds. OMB Circular A--102 is available at http://www.whitehouse.gov/omb/circulars/a102/a102.html.

(b) For recipients covered by the Single Audit Act Amendments of 1996 and OMB Circular A--133, "Audits of States, Local Governments, and Non-Profit Organizations," recipients agree to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF--SAC) required by OMB Circular A--133. OMB Circular A--133 is available at http://www.whitehouse.gov/omb/circulars/a133/a133.html. This shall be accomplished by identifying expenditures for Federal awards made under the Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF--SAC by CFDA number, and inclusion of the prefix "ARRA-" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF--SAC.

(c) Recipients agree to separately identify to each subrecipient, and document at the time of subaward and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of Recovery Act funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to subrecipients shall distinguish the subawards of incremental Recovery Act funds from regular subawards under the existing program.

(d) Recipients agree to require their subrecipients to include on their SEFA information to specifically identify Recovery Act funding similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor subrecipient expenditure of ARRA funds as well as oversight by the Federal awarding agencies, Offices of Inspector General and the Government Accountability Office.

DAVIS BACON ACT AND CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Definitions: For purposes of this article, Davis Bacon Act and Contract Work Hours and Safety Standards Act, the following definitions are applicable:

(1) "Award" means any grant, cooperative agreement or technology investment agreement made with Recovery Act funds by the Department of Energy (DOE) to a Recipient. Such Award must require compliance with the labor standards clauses and wage rate requirements of the Davis-Bacon Act (DBA) for work performed by all laborers and mechanics employed by Recipients (other than a unit of State or local government whose own employees perform the construction) Subrecipients, Contractors and subcontractors.

(2) "Contractor" means an entity that enters into a Contract. For purposes of these clauses, Contractor shall include (as applicable) prime contractors, Recipients, Subrecipients, and Recipients' or Subrecipients' contractors, subcontractors, and lower-tier subcontractors. "Contractor" does not mean a unit of State or local government where construction is performed by its own employees."

(3) "Contract" means a contract executed by a Recipient, Subrecipient, prime contractor or any tier subcontractor for construction, alteration, or repair. It may also mean (as applicable) (i) financial assistance instruments such as grants, cooperative agreements, technology investment agreements, and loans; and, (ii) Sub awards, contracts and subcontracts issued under financial assistance agreements. "Contract" does not mean a financial assistance instrument with a unit of State or local government where construction is performed by its own employees.

(4) "Contracting Officer" means the DOE official authorized to execute an Award on behalf of DOE and who is responsible for the business management and non-program aspects of the financial assistance process.

(5) "Recipient" means any entity other than an individual that receives an Award of Federal funds in the form of a grant, cooperative agreement or technology investment agreement directly from the Federal Government and is financially accountable for the use of any DOE funds or property, and is legally responsible for carrying out the terms and conditions of the program and Award.

(6) "Subaward" means an award of financial assistance in the form of money, or property in lieu of money, made under an award by a Recipient to an eligible Subrecipient or by a Subrecipient to a lower-tier subrecipient. The term includes financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include the Recipient's procurement of goods and services to carry out the program nor does it include any form of assistance which is excluded from the definition of "Award" above.

(7) "Subrecipient" means a non-Federal entity that expends Federal funds received from a Recipient to carry out a Federal program, but does not include an individual that is a beneficiary of such a program.

(a) Davis Bacon Act

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and

mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the Contract for a class of laborers or

mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The Department of Energy or the Recipient or Subrecipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this Contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the Contract, the Department of Energy, Recipient, or Subrecipient, may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The Contractor shall submit weekly for each week in which any Contract work is performed a copy of all payrolls to the Department of Energy if the agency is a party to the Contract, but if the agency is not such a party, the Contractor will submit the payrolls to the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner, as the case may be, for transmission to the Department of Energy. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The

required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Department of Energy if the agency is a party to the Contract, but if the agency is not such a party, the Contractor will submit them to the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner, as the case may be, for transmission to the Department of Energy, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 3729 of title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Department of Energy or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the

work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive

Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this Contract.

(6) Contracts and Subcontracts. The Recipient, Subrecipient, the Recipient's and Subrecipient's contractors and subcontractor shall insert in any Contracts the clauses contained herein in(a)(1) through (10) and such other clauses as the Department of Energy may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Recipient shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of the paragraphs in this clause.

(7) Contract termination: debarment. A breach of the Contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this Contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Recipient, Subrecipient, the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each

individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Department of Energy or the Recipient or Subrecipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Contracts and Subcontracts. The Recipient, Subrecipient, and Recipient's and Subrecipient's contractor or subcontractor shall insert in any Contracts, the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Recipient shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(5) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records to be maintained under this paragraph shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Energy and the Department of Labor, and the Contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

Reporting Requirements Checklist
Sub-Recipient Cooperative Agreement No. 115492

Report	Frequency	Submittal
American Recovery and Reinvestment Act:		
Reporting Requirements	Prior to Agreement	Contracts Specialist
Monthly Contract Cost to Date Estimate	Monthly NLT the 15th calendar day of each month	Project Specialist
Management Reporting:		
Progress Report	Monthly	SharePoint site
Special Status Report*	As required	Project Director
Ad hoc reporting	As required	Project Director
Reimbursement Request:		
Invoice	Monthly NLT the 15th calendar day of each month	Project Specialist carla.raymond@battelle.org
Closeout Reporting:		
Patent Certification	Final End of Effort	Contracts Specialist
Property Certificate	Final End of Effort	Contracts Specialist
Other Reporting:		
Annual Inventory Report of Federally Owned Property	Annually, NLT October 15 of each calendar year	Contracts Specialist

***Special Status Reports** are for Problems, delays, or adverse conditions which materially impair the sub-recipient's ability to meet the objectives of the award or which may require DOE to respond to questions relating to such events from the public. The sub-recipient must report any of the following incidents and include the anticipated impact and remedial action to be taken to correct or resolve the problem/condition:

a. Any single fatality or injuries requiring hospitalization of five or more individuals.
b. Any significant environmental permit violation.
c. Any verbal or written Notice of Violation of any Environmental Safety, and Health statutes.
d. Any incident which causes a significant process or hazard control system failure.
e. Any event which is anticipated to cause a significant schedule slippage or cost increase.
f. Any damage to Government-owned equipment in excess of $50,000.
g. Any other incident that has the potential for high visibility in the media.

EXHIBIT B

City of Richland shall,

1. Select a site for installation of a three phase 10 kW Demand Shifter. The Demand Shifter shall be connected to the distribution transformer secondary terminals, ahead of the customer metering, at either 208V or 240V three phase. The site should have adequate signal coverage on the Verizon Wireless cellular network.

2. Coordinate with Benton to meet the project schedule.

3. Prepare the site by installing a precast concrete pad, grounding, conduits and any other material required according to the drawings provided by Benton.

4. Install and assemble the delivered unit. Make the transformer secondary connections and install peripheral hardware including communications, metering and any other equipment required.

5. Allow the Demand Shifter unit to operate in support of the Smart Grid Demonstration Project.

Benton PUD shall,

1. Provide a detailed project budget that identifies the items to be ordered by Benton, which are eligible for the 50% match and the items to be provided by the City of Richland, which are not eligible.

2. Provide a project schedule.

3. Order a 10 kW Demand Shifter to be shipped to the City of Richland's site.

4. Provide drawings of the concrete pad, grounding, conduits and any other material required.

5. Complete a site inspection prior to installation.

6. Provide a cisco router with an integrated Verizon cellular modem to be installed in the Demand Shifter. Alternate communication methods may be approved by Benton.

7. Supervise the installation and complete an integration and test plan with the Demand Shifter vendor.

8. Operate the Demand Shifter unit according to the goals of the Smart Grid Demonstration Project.

November 23, 2011

City of Richland
Attn: Bob Hammond
PO Box 190
Richland, WA 99352

RE: Contract #11-21-16 – Interlocal Cooperative Project Agreement / Smart Grid

Please find enclosed one of the two original signature documents for the above referenced contract which were signed by the District's Assistant General Manager. We have retained the other original signature document for our records.

If you have any questions please call me at 509-582-1240.

Very truly yours,

Loretta E. Tucksen
Contracts and Purchasing Coordinator