



# **SCHOOL BOARD ACTION REPORT**

**DATE:** June 6, 2017  
**FROM:** Dr. Larry Nyland, Superintendent  
**LEAD STAFF:** Dr. Lester Herndon, Associate Superintendent, Facilities and Operations  
(206) 252-0644, [ltherndon@seattleschools.org](mailto:ltherndon@seattleschools.org)

**For Introduction:** June 28, 2017  
**For Action:** ~~July 5, 2017~~ August 30, 2017

## **1. TITLE**

BEX II/BEX III: Approval of Authorization No. 2017-089 A (1) and Contract No. 2017-089 G (1-1) for Implementation of the Solar Photovoltaic Systems Project at Six Seattle Public Schools

## **2. PURPOSE**

This Board Action Report would authorize the Superintendent to provide the Department of Enterprise Services notification of Funding Approval for Authorization No. 2017-089 A (1) and Contract No. 2017-089 G (1-1) in the amount of \$2,174,008.03 (including sales tax).

## **3. RECOMMENDED MOTION**

I move that the School Board authorize the Superintendent to provide the Department of Enterprise Services notification of Funding Approval for Authorization No. 2017-089 A (1) and Contract No. 2017-089 G (1-1) in the amount of \$2,174,008.03 (including sales tax) in accordance with provisions of Interagency Agreement No. K3865 with Department of Enterprise Services (DES) for the implementation of an energy efficiency project at six schools utilizing solar technology.

## **4. BACKGROUND INFORMATION**

### **a. Background**

#### **Need for ESCO Contract Approval to proceed with Project:**

Seattle Public Schools, through the adoption of Board Resolution 2012/13-12 “the Green Resolution,” has expressed its desire to optimize energy efficiency through cost effective practices and pursue outside funding partners to help leverage available incentive programs. Seattle Public Schools applied for an energy efficiency grant through the State of Washington Department of Commerce. State Energy Efficiency and Solar grants are awarded through a competitive process and must be used solely for energy and operational cost saving and solar installations.

On June 14, 2017, it was announced that the District will receive \$500,000 for the implementation of an energy efficiency project at six schools utilizing solar technology.

The six facilities selected are:

1. Arbor Heights Elementary
2. Ballard High School

3. Denny International School
5. Bailey Gatzert Elementary

4. Hazel Wolf K-8
6. South Shore Middle School

Seattle Public Schools Department of Capital Projects and Planning evaluated fourteen potential school sites and identified six school sites where annual savings would provide a positive cash flow. Selection was based on, but not limited to: BEX projects that were designed to be solar ready; cost effectiveness criteria to ensure a competitive grant application; and geographic location to ensure equity throughout the district facilities inventory.

### **Energy Savings Performance Contracting Project Delivery**

The District entered into an Interagency Agreement (K3865) with the State of Washington Department of Enterprise Services, Engineering and Architectural Services (DES) to establish a vehicle for DES to provide project management services as required for a successful project including, but not limited to: assistance during design, construction and commissioning, review and approval of invoice vouchers for payment and assistance with final project acceptance.

The Interagency Agreement between Seattle Public Schools and DES specifies that the “Energy/Utility Conservation projects shall be authorized by Amendment to this Agreement.” ESCO Contract No. 2017-089 and the Energy Services Amendment are the proposed Amendments to the Interagency Agreement for the Energy/Utility Conservation projects.

The project delivery method will be a Design/Build approach as authorized by RCW 39.35 where the Contractor or Energy Service Company (ESCO) guarantees the performance, cost and savings of the project. The ESCO guaranteed energy savings in year one is \$59,206 (which is the minimum amount guaranteed per year).

#### Diverse Business Participation Goals:

Ameresco supports the State of Washington’s diverse business inclusion plan targets however Ameresco for this project is not able to meet these goals for the following reasons:

- To develop the budget, Ameresco negotiated pricing with two Puget Sound area solar contractors who were both large enough and sufficiently qualified to perform a turn-key solar installation of this magnitude (864 kW DC over six sites). One of the contractors they worked was a “Small Business Enterprise” (SBE) certified with the State Office of MWBE however, that contractor’s quote for the project was 147% over the non-MWBE contractor. Besides the one “SBE” contractor Ameresco worked with, they could find no other MWBE certified solar contractors in the area that could perform this work on a turn-key basis.
- The other contractor, roofing repairs/modifications, was determined by the District. The contractor selected for this scope of work maintains the long-term roof warranties for the facilities selected for this project.

The proposed solar panel installations will fit aesthetically with the designs of the buildings. The installations will be limited to the existing roof surfaces with the goal of not being readily visible to site occupants and include an energy dashboard for educational use.

**b. Alternatives**

If the motion is denied, the Department of Commerce Energy Efficiency and Solar Grant for Six Seattle Public Schools project would not be completed and the District’s students will not benefit from grant-funded facilities infrastructure improvements and the savings generated for the General Fund.

**c. Research**

RCW 39.35

Department of Commerce 2015-17 Energy Efficiency and Solar Grants (program guidelines)  
Ameresco (ESCO Company) Energy Services Proposal

**5. FISCAL IMPACT/REVENUE SOURCE**

Fiscal impact to this action will be the expenditure of \$2,174,008.03 which falls within the total budgeted project amount.

Revenue Source as follows:

BEX II	\$ 647,816*
BEX III	\$ 947,816*
Department of Commerce Grant	\$ 500,000
State of Washington Sales Tax Rebate	\$ 146,646
Hazel-Wolf K-8 PTSA Contribution	\$ 50,000
Measurement and Verification (M&V)	\$ 10,096
Seattle City Light Utility Grant	\$ <u>0</u>
Total Project Budget	\$2,302,374*

\*Budget transfer of BEX II and BEX III funds and Total Project Budget was approved in a separate Board Action Report

Expenditure:  One-time  Annual  Multi-Year  N/A

Revenue:  One-time  Annual  Multi-Year  N/A

**6. COMMUNITY ENGAGEMENT**

With guidance from the District’s Community Engagement tool, this action was determined to merit the following tier of community engagement:

Not applicable

Tier 1: Inform

Tier 2: Consult/Involve

Tier 3: Collaborate

**7. EQUITY ANALYSIS**

This motion was not put through the process of a full racial equity analysis. The selection of projects in this Grant were designed to provide equitable distribution across the district.

**8. STUDENT BENEFIT**

This action will benefit students by providing cost savings to the general fund and an educational opportunity to observe and interact with clean energy technology.

**9. WHY BOARD ACTION IS NECESSARY**

Amount of contract initial value or contract amendment exceeds \$250,000 (Policy No. 6220)

Amount of grant exceeds \$250,000 in a single fiscal year (Policy No. 6114)

Adopting, amending, or repealing a Board policy

Formally accepting the completion of a public works project and closing out the contract

Legal requirement for the School Board to take action on this matter

Board Policy No. \_\_\_\_\_, [TITLE], provides the Board shall approve this item

Other: \_\_\_\_\_

**10. POLICY IMPLICATION**

Per Board Policy No. 6220, Procurement, any contract over \$250,000 must be brought before the Board for approval.

**11. BOARD COMMITTEE RECOMMENDATION**

This motion was discussed at the Operations Committee meeting on Jun 15, 2017. The Committee reviewed the motion and moved this forward to the full board for approval.

**12. TIMELINE FOR IMPLEMENTATION**

Upon approval of this motion, the District will be able to proceed with

- Design and Permitting
- Construction anticipated to occur Fall 2017 through Summer 2018

**13. ATTACHMENTS**

- Authorization No. 2017-089 A(1) for approval
- Contract No. 2017-089 G (1-1) for approval
- Energy Services Authorization Amendment No. 1; 2017-089 A (1)R
- ESCO Contract 2017-089 G (1-1)
- Energy Services Proposal 2017-089 A(1)

- DES Interagency Agreement No: K3865
- Department of Commerce 2015-2017 Energy Efficiency and Solar Grant Award Round Two



STATE OF WASHINGTON  
DEPARTMENT OF ENTERPRISE SERVICES

1500 Jefferson St. SE, Olympia, WA 98501  
PO Box 41476, Olympia, WA 98504-1476

April 19, 2017

TO: Richard Best, Seattle Public Schools  
FROM: Andrea Faust, Contracts Specialist, (360) 407-9365  
RE: Authorization No. 2017-089 A (1)  
Amendment No. 1  
Project Title Solar Photovoltaic Systems  
Ameresco, Inc.

SUBJECT: Funding Approval

The Department of Enterprise Services, Engineering & Architectural Services, requires funding approval for the above referenced contract document(s). The amount required is as follows:

Design & Implementation of Energy Conservation Measures	\$ 477,326.00
Sales Tax (10.1%) (includes tax on audit & proposal)	\$ <u>53,591.21</u>
<b>TOTAL</b>	<b>\$ 530,917.21</b>

**In accordance with the provisions of RCW 43.88, the signature affixed below certifies to Engineering & Architectural Services that the above identified funds are appropriated, allotted or that funding will be obtained from other sources available to the using client/agency. The using/client agency bears the liability for any issues related to the funding for this project.**

By \_\_\_\_\_ Date \_\_\_\_\_  
Dr. Larry Nyland / Superintendent

Please sign and return this form to E&AS. If you have any questions, please call me.

2017089Aam1fndaf



STATE OF WASHINGTON  
DEPARTMENT OF ENTERPRISE SERVICES

1500 Jefferson St. SE, Olympia, WA 98501  
PO Box 41476, Olympia, WA 98504-1476

April 19, 2017

TO: Richard Best, Seattle Public Schools  
FROM: Andrea Faust, Contracts Specialist, (360) 407-9365  
RE: Contract No. 2017-089 G (1-1)  
Solar Photovoltaic Systems  
Ameresco, Inc.  
SUBJECT: Funding Approval

The Department of Enterprise Services, Engineering & Architectural Services, requires funding approval for the above referenced contract document. The amount required is as follows:

ESCO Contract Amount	\$ 1,431,976.00
Sales Tax (10.1%)	\$ 144,629.58
Contingency Amount (with Tax)	\$ <u>66,485.24</u>
<b>Total</b>	<b>\$ 1,643,090.82</b>

**In accordance with the provisions of RCW 43.88, the signature affixed below certifies to Engineering & Architectural Services that the above identified funds are appropriated, allotted or that funding will be obtained from other sources available to the using client/agency. The using/client agency bears the liability for any issues related to the funding for this project.**

By \_\_\_\_\_ Date \_\_\_\_\_  
Dr. Larry Nyland / Superintendent

Please sign and return this form to E&AS. If you have any questions, please call me.

ENERGY SERVICES AUTHORIZATION AMENDMENT NO. 1

Project Title Solar Photovoltaic Systems Authorization No. 2017-089 A (1) Revised  
 Facility Seattle Public Schools Date June 1, 2017

This Amendment, when properly signed, shall be the basis on which the Subject Authorization shall be modified.

Authorization (this sheet) Project Completion and Compensation  
 Scope of Work Options: Modify Basic Services

**Approvals**

Energy Services Company:

Owner:

Ameresco, Inc.  
 222 Williams Avenue South, Suite 100  
 Renton, WA 98057

Seattle Public Schools  
 acting through the  
 Department of Enterprise Services  
 Engineering and Architectural Services

By: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Date: \_\_\_\_\_

\_\_\_\_\_  
Roger A. Wigfield, P. E.  
 Assistant Program Manager  
 \_\_\_\_\_

**Compensation for Energy Services**

Basic Services	COMPENSATION		
	Current	New	Previous
Energy Audit and Energy Services Proposal	\$ 53,280.00	\$ 0.00	\$ 53,280.00
Design	\$ 140,390.00	\$ 140,390.00	\$ 0.00
Construction Management	\$ 84,234.00	\$ 84,234.00	\$ 0.00
Overhead and Profit	\$ 252,702.00	\$ 252,702.00	\$ 0.00
<b>Grand Total (Plus WSST as applicable)</b>	<b>\$ 530,606.00</b>	<b>\$ 477,326.00</b>	<b>\$ 53,280.00</b>

**Value of this Amendment = \$477,326.00 (Plus Washington State Sales Tax)**



---

**Scope of Work**

---

Energy efficiency measures under Contract No. 2017-089 G (1-1) will include installation of Solar Photovoltaic Systems, including any and all necessary ancillary equipment. The ESCO will perform a detailed engineering design as needed to obtain Owner review and approval of the proposed systems and to obtain bids as required. The ESCO will provide construction management, as-built drawings, and O&M manuals. All work is per the Seattle Public Schools Energy Services Proposal dated March 3, 2017.

---

**Schedule For Completion**

---

Final completion 455 days from execution of this Amendment.

2017089Aam1Raf



STATE OF WASHINGTON  
DEPARTMENT OF ENTERPRISE SERVICES

1500 Jefferson St. SE, Olympia, WA 98501  
PO Box 41476, Olympia, WA 98504-1476

April 19, 2017

**RETAINAGE INVESTMENT**

ESCO Contractor	Ameresco, Inc.
ESCO Contract No.	2017-089 G (1-1)
Description	Solar Photovoltaic Systems
Client Agency	Seattle Public Schools

Pursuant to R.C.W. 60.28, you are required to exercise your option, IN WRITING, on whether or not monies reserved from the amounts due you on the above contract shall be placed in escrow. You are therefore directed to complete and return this form with the signed copy of the above contract to Engineering & Architectural Services.

Should you desire to have the retained monies invested, it will then be necessary that you enter into an escrow agreement with a bank, trust or savings and loan company, and the above Client Agency.

This form will be transmitted to the Client Agency for further action in preparing the escrow agreement.

**ENERGY SERVICES CONTRACTOR'S OPTION**

- \_\_\_\_\_ I do not request retainage on the above contract to be invested.
- \_\_\_\_\_ I hereby request retainage on the above contract be invested.
- \_\_\_\_\_ I hereby request retainage on the above contract be invested and converted into bonds and sureties.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

ESCO Contract No.	<u>2017-089 G (1-1)</u>
Project	<u>Solar Photovoltaic Systems</u>
Agency	<u>Seattle Public Schools</u>
Date	<u>April 19, 2017</u>

**STATE OF WASHINGTON**

**ENERGY SERVICE COMPANY (ESCO) CONSTRUCTION CONTRACT**

For the DEPT. OF ENTERPRISE SERVICES, ENGINEERING & ARCHITECTURAL SERVICES

This Energy Service Company (ESCO) Construction Contract, made and entered into this 19<sup>th</sup> day of April, 2017, shall be the agreed basis of performing the following work by and between the State of Washington, Seattle Public Schools, acting through the Department of Enterprise Services, Engineering & Architectural Services, hereinafter referred to as the Owner, and

Ameresco, Inc.  
2222 Williams Avenue South, Suite 100  
Renton, WA 98057  
Telephone (206) 522-4270  
E-mail [gthorsland@ameresco.com](mailto:gthorsland@ameresco.com)

hereinafter referred to as the ESCO or Contractor.

WITNESSETH: Whereas the parties hereto have mutually covenanted and by these presents do covenant and agree with each other as follows:

FIRST: The said ESCO agrees to furnish all permits, material, labor, tools, equipment, apparatus, facilities, etc., necessary to perform and complete in a workmanship like manner the work called for in the attached Scope of Work, Energy Services Proposal dated March 3, 2017.

Energy Services Authorization No. 2017-089 A (1)  
Master Energy Services Agreement No. 2015-181 B (2)

Audits and Proposals for this project were prepared by the ESCO according to the terms of the Contract Documents which include, but are not limited to, the Master Energy Services Agreement, Energy Services Authorization(s), the accepted Proposal, *General Conditions for Washington State Energy Savings Performance Contracting*, Addenda, Specifications, Drawings, Bond, and this Construction Contract.

SECOND: Time of Completion: The work to be performed under this contract shall commence as soon as the ESCO has been officially notified to proceed and shall be substantially complete within 455 consecutive calendar days after the date of Notice to Proceed.

THIRD: The apprenticeship labor hours required for this project are 15% of the total labor hours. The undersigned agrees to utilize this level of apprentice participation. Voluntary workforce

diversity goals for this apprentice participation are identified in the *General Conditions for Washington State Energy Savings Performance Contracting*.

FOURTH: In consideration of the Performance of the Work, herein contained on the part of the ESCO, the Owner hereby agrees to pay the ESCO for said work completed according to the Contract Documents, for not more than the sum of \$1,431,976.00, plus 10.01% state sales tax consisting of the following:

ESCO Contract Cost	\$1,431,976.00
--------------------	----------------

The ESCO shall bond this contract in accordance with Section 2.04 of the General Conditions for Washington State Energy Savings Performance Contracting. The construction value plus contingency is a guaranteed maximum not-to-exceed cost and final payment to the ESCO shall be reconciled to reflect the actual installed cost provided it does not exceed the guaranteed maximum cost.

FIFTH: ESCO payments to subcontractors and materialmen shall not be contingent upon the ESCO receiving payment from the Owner. Unless otherwise agreed upon, payment to the ESCO shall be made only after completion of the energy efficiency measure(s) and the ESCO has issued a Notice of Commencement of Energy Savings and the Owner has accepted such Notice.

IN WITNESS WHEREOF: The said Department of Enterprise Services, Engineering & Architectural Services, has caused this ESCO Construction Contract to be subscribed in its behalf, and the said ESCO has signed this ESCO Construction Contract the day and year first above written.

ESCO:  
Ameresco, Inc.

Owner:  
Seattle Public Schools  
acting through the  
Department of Enterprise Services  
Engineering & Architectural Services

By \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

By \_\_\_\_\_  
Name Roger A. Wigfield, P. E.  
Title Energy Program Manger  
Date \_\_\_\_\_

WA State Contractor's License No. AMEREI\*004PZ

Federal Tax ID No. 04-3512838

UBI Number 602 062 980

MWBE Certification No. \_\_\_\_\_

2017089Gconaf

April 19, 2017

SCOPE OF WORK

ESCO Contract No. 2017-089 G (1-1)

Solar Photovoltaic Systems  
Seattle Public Schools

Furnish and install the energy efficiency measures, including any and all necessary ancillary equipment, as described in the Seattle Public Schools Energy Services Proposal dated March 3, 2017.

EXHIBIT 2017-089 A(1)

ENERGY SERVICES PROPOSAL



Seattle Public Schools



For: Seattle Public Schools – Solar PV Systems  
2017-089 A(1), Washington

By: Ameresco, Inc.  
- Lonn Inman, Project Manager  
- Alex Griffiths, Project Engineer  
Ameresco Project Number 81260000

March 3, 2017

**Table of Contents**

EXECUTIVE SUMMARY ..... 1

    A. SUMMARY & PROPOSED SERVICES ..... 1

    B. PROJECT DESCRIPTION ..... 1

    C. PROJECT BENEFITS ..... 1

    D. GUARANTEES ..... 2

    E. CONCLUSION ..... 2

I. FACILITY DESCRIPTIONS ..... 2

    A. ARBOR HEIGHTS ..... 3

    B. BAILEY GATZERT ..... 3

    C. HAZEL WOLF ..... 3

    D. SOUTH SHORE ..... 4

    E. BALLARD HIGH ..... 4

    F. DENNY INTERNATIONAL ..... 4

II. ENERGY CONSERVATION MEASURES (ECMs) TO BE IMPLEMENTED ..... 5

    A. ARBOR HEIGHTS ..... 5

    B. BAILEY GATZERT ..... 5

    C. HAZEL WOLF ..... 5

    D. SOUTH SHORE ..... 6

    E. BALLARD HIGH GYM ..... 6

    F. DENNY INTERNATIONAL ..... 6

III. ESCO SERVICES ..... 6

IV. PROJECT COSTS ..... 8

    A. MAXIMUM PROJECT COST ..... 8

    B. PROJECT COST TABLE ..... 9

    C. ITEMS INCLUDED IN MAXIMUM PROJECT COST ..... 10

    D. EXCLUSIONS ..... 11

    E. CONSTRUCTION CONTINGENCY ..... 11

    F. ONGOING SERVICES ..... 11

    G. ACCOUNTING RECORDS ..... 11

    H. RECONCILIATION OF LABOR & MATERIAL COSTS ..... 12

    I. DIVERSE BUSINESS PARTICIPATION GOALS FOR THIS PROJECT ..... 12

V. RECOMMENDATIONS FOR REPLACEMENT OF EXISTING EQUIPMENT ..... 12

VI. STANDARDS OF COMFORT SERVICE ..... 12

VII. BASELINE ENERGY CONSUMPTION ..... 13

    A. OVERALL RESOURCE USE ..... 13

    B. BY FACILITY RESOURCE USE ..... 13

VIII. ESTIMATED ANNUAL SAVINGS AMOUNT AND UTILITY INCENTIVE..... 14

    A. ELECTRICAL..... 14

    B. UTILITY INCENTIVE ..... 14

IX. METHOD OF CALCULATING ENERGY COST SAVINGS..... 14

    A. ENERGY AUDIT..... 14

    B. CALCULATION OF SAVINGS ..... 14

X. FINANCING..... 14

XI. ENERGY SAVINGS GUARANTEE..... 14

XII. ESCO COMPENSATION..... 15

    A. PAYMENTS ..... 15

XIII. TERM OF AGREEMENT ..... 15

XIV. TERMINATION VALUE..... 15

XV. PROJECT SCHEDULE..... 15

XVI. EXTENT OF SUBCONTRACTING ..... 15

XVII. INSURANCE AND BONDING..... 15

XVIII. RENEGOTIATION ..... 16

XIX. EXHIBITS AND TABLES ..... 16

    A. TABLE 1 FINANCIAL ANALYSIS..... 17

    B. TABLE 2 CASH FLOW..... 18

    C. TABLE 3 FULL LIST OF MEASURES..... 19

    D. TABLE 4 SELECTED MEASURES..... 21

EXHIBIT 1 Detailed Solar Audit Calculations (Provided electronically)

EXHIBIT 2 Bond Form (Incorporated herein (AIA A312))

EXHIBIT 3 Energy Services Agreement (provided separately & incorporated herein)

EXHIBIT 4 Conceptual Drawings (Provided electronically)

EXHIBIT 5 List of Major Equipment (Incorporated herein)

EXHIBIT 6 Structural Review for Proposed Solar Installation(s)

EXHIBIT 7 Copy of Interagency Agreement (Incorporated herein)

EXHIBIT 8 Not Used

EXHIBIT 9 ENERGY STAR Statement of Energy Use Intent (Incorporated herein)

EXHIBIT 10 Not Used



## EXECUTIVE SUMMARY

### A. SUMMARY & PROPOSED SERVICES

Ameresco is pleased to present this proposal for the implementation of a solar photovoltaic (PV) installation for Seattle Public Schools.

This Proposal follows the outline contained in Section 2 of the Energy Services Agreement. It presents the contractual terms under which Ameresco, Seattle Public Schools, and the Department of Enterprise Services Energy Program (DES Energy Program) will work together over the term of the project. This Proposal describes the scope, costs, guarantees, and other aspects of the project.

The services in this Proposal include design, construction, system verification, and Measurement and Verification (M&V) services for the first 3 year(s). Although Seattle Public Schools will operate and maintain the new equipment, Ameresco will provide important M&V services during the first 3 year(s) to help ensure the predicted savings are achieved. Ongoing M&V services are also offered for an additional cost at the owner's request.

### B. PROJECT DESCRIPTION

The project produces clean renewable energy for Seattle Public Schools. It will install approximately 795 kilowatts (kW) of solar PV systems throughout six different school sites. These sites include Arbor Heights Elementary, Bailey Gatzert Elementary, Hazel Wolf K-8, South Shore K-8, Ballard High School and Denny International School.

These solar PV systems are estimated to produce 864,000 kilowatt hours (kWh) of electricity annually valued at \$59,200 energy cost savings to the school district and tax payers of Seattle.

Selection of sites was based on, but not limited to, recent or ongoing renovation projects as they are designed to be solar ready; cost effectiveness criteria to ensure a competitive grant application; and, geographic location to ensure equity throughout the district facilities inventory.

### C. PROJECT BENEFITS

#### 1. Financial Benefits

Table 1 shows project costs, estimated utility incentives, and savings related to this project. The guaranteed maximum project cost is \$2,036,750. Including sales tax and DES Energy Program project management fees, the total project cost is \$2,302,374. The estimated utility incentive for the project is \$50,000.

All construction costs will be open book to the Owner, and any cost savings related to savings on the ESCO's (energy services company) labor and material costs will revert to the Owner at the end of the project.

The project will result in a reduction of over \$59,206 annually in electric purchases from the utility. The project produces a positive cash flow as shown on Table 1 Financial Analysis in the first year of operation. This is based on Seattle Public Schools providing a capital investment of \$1,641,197 and financing \$0.

#### 2. Maintenance Related Benefits

N/A

3. Environmental Benefits

In addition to building improvements and energy savings, there is a significant positive impact on the environment as a result of this project. The energy produced by the project will directly reduce the amount of power produced by the utilities and reduce CO<sub>2</sub> emissions by over 777,895 lbs. annually.

D. GUARANTEES

Ameresco guarantees that the project cost, related specifically to energy savings and the project scope, will not exceed the maximum price of \$2,036,750 (project cost before sales tax and DES Energy Program project management fee). Also, Ameresco is guaranteeing that the project will perform such that electrical production will not be less than 821,112 kWh per year. This corresponds with 95% of the estimated energy savings.

E. CONCLUSION

This project represents an excellent opportunity for the Seattle Public Schools to improve their facilities while saving energy. The project provides over \$2,300,000 in facility improvements. Ameresco looks forward to working with Seattle Public Schools and DES Energy Program in making this project a success.

**I. FACILITY DESCRIPTIONS**

<b>Building</b>	<b>Address</b>	<b>Sq. Ft.</b>	<b>Approx. Age Years</b>	<b>Building Occupancy Schedule</b>
Arbor Heights	3701 SW 104th St, Seattle, WA 98146	90,763	Major renovation in past year	Traditional Public School M-F 0800 to 1700 10-months
Bailey Gatzert	1301 E Yesler Way, Seattle, WA 98122	52,924	30	Traditional Public School M-F 0800 to 1700 10-months
Hazel Wolf	11530 12th Ave NE, Seattle, WA 98125	92,000	Major renovation in past year	Traditional Public School M-F 0800 to 1700 10-months
South Shore K-8	4800 S Henderson St, Seattle, WA 98118	138,705	8	Traditional Public School M-F 0800 to 1700 10-months
Ballard High School	1418 NW 65th St, Seattle, WA 98117	242,000	18	Traditional Public High School M-F 0700 to 1900 10-months
Denny Int'l Middle School	2601 SW Kenyon St, Seattle, WA 98106	138,778	6	Traditional Public School M-F 0800 to 1700 10-months

A. ARBOR HEIGHTS

1. 2015/2016: # Students: 410 # Teachers: 25 Students per teacher: 16 Average daily attendance: 95.3%
2. Arbor Heights is a neighborhood school with a new, Environmental STEM building that opened in September of 2016. The new building was designed to bring our collaboratively created vision and mission to life with an environmentally built school focused on Environmental STEM (Science, Technology, Engineering and Math).  
Arbor Heights is a school with a diverse population and FRL of 29%. We provide learning spaces both in an outside of the classroom that promote curiosity, wonder and innovation. We value the arts as a way to instill creativity across the curriculum. We support students in designing sustainable solutions to local and global challenges.  
We encourage Collaboration, Community and Citizenship. We value equity and the whole child. We are committed to inclusion and equity and promote heart-to-action learning for a healthy community and planet.  
Arbor Heights integrates social and emotional learning using two evidence-based programs and philosophies:  
R.U.L.E.R from Yale University and Positive Behavior Interventions and Support based on Multi-Tier Systems of  
Support MTSS. At our Heights students S.O.A.R.! We Solve Problems, Own our own learning, Act responsibly and Respectfully.

B. BAILEY GATZERT

1. 2015/2016: # Students: 291 # Teachers: 30 Students per teacher: 10 Average daily attendance: 95.3%
2. A richly diverse Pre K-5th grade elementary school program with passionate educators and staff. We honor and cultivate each child's individual gifts and talents while developing academic excellence and social emotional strength. We empower children to contribute positively to our diverse and dynamic society through lifelong learning and personal integrity. Balanced Literacy Program utilized. School wide implementation of K-5 classroom libraries to support Independent Reading with just right books. Columbia Teachers College Readers' and Writers' Workshop and Early Learning Literacy Program implemented school wide. K-2 teachers and specialists are using workshop model to pull small groups to provide differentiated instruction. ELL and a Title Reading Specialist are collaborating with classroom teachers. Common Core standards used throughout the school. The Title I Math Specialist, Levy Math Specialist and classroom teachers are using Math in Focus curriculum. Learning Opportunities include after school programs coordinated by Seattle University. They include the Brain Train, Redhawks Reading Corps, Team Read, America SCORES, and Seattle Music Partners.

C. HAZEL WOLF

1. 2015/2016: # Students: 477 # Teachers: 41 Students per teacher: 18 Average daily attendance: 94.9%
2. Hazel Wolf K-8 is an E-STEM school empowering creative and critical thinkers who nurture themselves, their community, and their environment. Our E-STEM program is in the 8th year of operation and professionally we are focusing our attention on developing our project based learning units, and integrating technology and engineering. We are also focused on determining our essential skills and knowledge for each grade level, and providing Tier 2 interventions for students who need additional time and instruction to develop these essential skills.

**D. SOUTH SHORE**

1. 2015/2016: # Students: 365 # Teachers: 44 Students per teacher: 14 Average daily attendance: 95.2%
2. South Shore Pre K-8 uses CCSS standards aligned curriculum in K-8th grade. We use the district adopted math scope and sequence as well as Engage New York to supplement the existing curriculum. We are currently in the initial stages of developing a tiered system of academic support to meet all students with &just right instruction; and we are currently analyzing and systematically building an acceleration system that promotes more than a year's academic progress for ALL students. South Shore also uses Teachers College and the REACH associates curriculum to support work in balanced literacy. We have added Jan Richardson template for Guided reading and CIA (Collect, Interpret, and Analyze) as a gap closing core curriculum enhancement in literacy. In our early learning classes, we use the High Scope curriculum to help students set goals and take ownership of their education at a very early age. South Shore was a pioneer in adopting the RULER approach that builds social/emotional skills in all students and this year we have added an emphasis on culturally responsive teaching (through relationships, relevance, rigor, and results) and teaching to a growth mindset. Through our Levy and other significant partnerships, we provide targeted intervention throughout the day in the form of small group work as well as intervention classes. We extend the school day for students in grades 3-8 through a partnership program with Seattle Parks. We will continue to grow and develop our understanding of true family engagement and partnerships by placing our primary focus on the strengths of the Rainier Beach community and the families that reside here.

**E. BALLARD HIGH**

1. 2015/2016: # Students: 1,708 # Teachers: 84 Students per teacher: 21 Average daily attendance: 92.5%
2. The new Ballard High School building was designed to reflect the image of the 1916 vintage structure while incorporating the qualities of a 21st century learning environment. The new school focuses on science and technology and contains an aeronautics testing facility and biotechnology laboratory. A Maritime Institute introduces interested students to aspects of the maritime industries. The library is named for the late Superintendent John Stanford. The Performing Arts Center has been dedicated to Earl Kelly who headed Ballard's drama department from 1953 to 1987. Ballard High School is committed to eliminating opportunity gaps in our school and we believe that improving relationships between staff and students is an important first step in this improvement process. Once students feel that adults at Ballard care about them, they will be more likely to attend school, complete work and become more engaged in the school community. Therefore, our C-SIP SMART Goals are: We will decrease the percentage of all students of color who receive Ds and Es from 42% to 32%. By the end of the school year, 90% of our ninth graders will earn 5.5 credits or more with a 2.0 GPA. The percentage of African-American and American Indian students that have less than an 80% attendance rate will decrease from 21% respectively to 10%. For all students, we will increase the number of students who feel their teachers take time to get to know them from 44% to 60%.

**F. DENNY INTERNATIONAL**

1. 2015/2016: # Students: 864 # Teachers: 54 Students per teacher: 16 Average daily attendance: 92.7%

2. Denny International Middle School is a wonderfully diverse learning community focused on high academic expectations for all students. Our entire school community is committed to providing an outstanding education for each scholar, eliminating the opportunity gap, and infusing the celebration of our diversity into every day of learning. Once again, Denny International was recognized by the State of Washington as a Washington Achievement Award Winner, among other awards, in celebration of the state's top-performing schools! In the areas of math and science, Denny is increasingly a STEM (Science Technology Engineering and Math) school. In addition to our Gateways to Technology class, science teachers at all three grade-levels were trained in Project Lead the Way to integrate enhanced STEM skills into the science curriculum! In order to empower our scholars as readers and writers, we are continuing as an Affiliate School with Columbia Teachers' College in NY to bring Readers/Writers Workshop aligned to the new Common Core State Standards to our classrooms! Other highlights include: Scholars in our Spanish Dual Language program are entering high school with on average three full years of high school Spanish already earned! Our large music programs are continuing to win awards at competitions around the West Coast! More and more of our outstanding teachers are earning the prestigious National Board certification.

## II. ENERGY CONSERVATION MEASURES (ECMs) TO BE IMPLEMENTED

### A. ARBOR HEIGHTS

#### 1. Solar Energy Measure

- a) ECM-AH-G1A: This measure will install:

One ballasted rooftop array consisting of a total of 412 modules of 72 cell monocrystalline, 345W format will be provided by Hyundai. The photovoltaic modules will be mounted at a 10-degree fixed tilt and will be installed at an azimuth of 180 degrees. The total system capacity at standard test conditions (STC) will be 142.1 kW-DC.

### B. BAILEY GATZERT

#### 1. Solar Energy Measure

- a) ECM-BG-G1A: This measure will install:

Three roof penetrating rail mounted rooftop arrays consisting of a total of 432 modules of 72 cell monocrystalline, 345W format will be provided by Hyundai. The photovoltaic modules will be mounted at a 12.5-degree fixed tilt and will be installed at an azimuth of 180 degrees. The total system capacity at standard test conditions (STC) will be 149 kW-DC.

### C. HAZEL WOLF

#### 1. Solar Energy Measure

- a) ECM-HW-G1A: This measure will install:

Two roof penetrating rail mounted rooftop arrays and 1 ballasted rooftop array consisting of a total of 288 modules of 72 cell monocrystalline, 345W format will be provided by Hyundai. The photovoltaic modules will be mounted at a 5-degree fixed tilt and will be installed at an azimuth of 222 degrees. The total system capacity at standard test conditions (STC) will be 99.4 kW-DC.

**D. SOUTH SHORE****1. Solar Energy Measure****a) ECM-SS-G1A: This measure will install:**

Two roof penetrating rail mounted rooftop arrays and 1 ballasted rooftop array consisting of a total of 400 modules of 72 cell monocrystalline, 345W format will be provided by Hyundai. The photovoltaic modules will be mounted at a 5/22-degree fixed tilt and will be installed at an azimuth of 180/255 degrees. The total system capacity at standard test conditions (STC) will be 138 kW-DC.

**E. BALLARD HIGH GYM****1. Solar Energy Measure****a) ECM-BHS-G1A: This measure will install:**

Two standing seam clamp rooftop arrays consisting of a total of 354 modules of 72 cell monocrystalline, 345W format will be provided by Hyundai. The photovoltaic modules will be mounted at a 15-degree fixed tilt and will be installed at an azimuth of 180 degrees. The total system capacity at standard test conditions (STC) will be 122.1 kW-DC..

**F. DENNY INTERNATIONAL****1. Solar Energy Measure****a) ECM-DI-G1A: This measure will install:**

Three roof penetrating rail mounted rooftop arrays consisting of a total of 408 modules of 72 cell monocrystalline, 345W format will be provided by Hyundai. The photovoltaic modules will be mounted at a 15-degree fixed tilt and will be installed at an azimuth of 180 degrees. The total system capacity at standard test conditions (STC) will be 149.39 kW-DC.

The proposed solar panel layouts and the structural drawings for the buildings/roofs have been reviewed by a structural engineer and have been confirmed to be well within the load-bearing capabilities of the structure(s) and roof(s). A stamped letter from the engineer will be provided.

**III. ESCO SERVICES**

Ameresco will provide the following services:

1. **Energy Audit:** The energy audit is complete and is incorporated herein.
2. **Design Services:** Provide a detailed engineering design as needed to obtain Owner review and approval of the proposed system and to obtain competitive bids. Provide construction support services, start-up, and testing. Provide as-built drawings and relevant O&M manuals.
3. **Construction:** Provide, or cause to be provided, all material, labor, and equipment, including paying for permits, fees, bonds, and insurance, required for the complete and working installation of the ESCO equipment.
  - a) The ESCO may perform portions of the construction work or may subcontract portions to qualified firms. In either case, the ESCO will share information regarding actual costs of the work with the Owner.

- b) When the ESCO has completed the installation of the Equipment, including start-up, operation verification, and training in accordance with the Proposal, the ESCO will provide to Owner a "Notice of Commencement of Energy Savings" and Owner shall have 10 days within which to accept the Notice.
  - c) At the conclusion of the last phase of the project, the ESCO will submit a "Notice of Substantial Completion" to the Owner.
4. Construction Management: Provide construction management services to coordinate and supervise the work. The Owner is expected to coordinate day-to-day communications with tenants and any scheduling of tenant relocations in and around occupied areas. The ESCO will provide construction superintendence of the work and will coordinate any impact upon building tenants with the Owner.
  5. Operation training: The ESCO will provide on-going training for the building staff during construction.
  6. Performance Maintenance: The ESCO will provide on-going measurement and verification to help ensure the predicted energy production is achieved throughout the first 3 year(s) of the agreement. Specific tasks will include:
    - a) Year One through 3: Post installation Measurement and Verification (M&V) will be performed based on the International Performance Measurement and Verification Protocol (IPMVP) – Option A (Retrofit Isolation-Key Parameter Measurement), Section IX – Method of Calculating Energy Savings and Energy Cost Savings, and the following Measurement and Verification table:

ECM	Conservation Measure	IPMVP Option	Work to be Performed	Years to be Done	Work To Be Performed By
AH-G1a	Solar Photovoltaic System: Install a 142.14 kW-DC Solar system	A	• Array DC power, AC power, plane of array irradiance, and back of module temperature will be measured. Measured PV system power will then be corrected to standard test conditions (1000 W/m <sup>2</sup> , 25°C ambient temp), reduced by the annual degradation factor (identified by the module manufacturer, usually 1%), and compared to rated values.	3	Ameresco
HW-G1a	Solar Photovoltaic System: Install a 93.84 kW-DC Solar system	A	• Array DC power, AC power, plane of array irradiance, and back of module temperature will be measured. Measured PV system power will then be corrected to standard test conditions (1000 W/m <sup>2</sup> , 25°C ambient temp), reduced by the annual degradation factor (identified by the module manufacturer, usually 1%), and compared to rated values.	3	Ameresco
BHS-G1a	Solar Photovoltaic System (Gym Standing Seam): Install a 122.13 kW-DC Solar system	A	• Array DC power, AC power, plane of array irradiance, and back of module temperature will be measured. Measured PV system power will then be corrected to standard test conditions (1000 W/m <sup>2</sup> , 25°C ambient temp), reduced by the annual degradation factor (identified by the module manufacturer, usually 1%), and compared to rated values.	3	Ameresco
BC-G1a	Solar Photovoltaic System (Flush Mount): Install a 149.04 kW-DC Solar system	A	• Array DC power, AC power, plane of array irradiance, and back of module temperature will be measured. Measured PV system power will then be corrected to standard test conditions (1000 W/m <sup>2</sup> , 25°C ambient temp), reduced by the annual degradation factor (identified by the module manufacturer, usually 1%), and compared to rated values.	3	Ameresco
DI-G1a	Solar Photovoltaic System: Install a 149.385 kW-DC Solar system	A	• Array DC power, AC power, plane of array irradiance, and back of module temperature will be measured. Measured PV system power will then be corrected to standard test conditions (1000 W/m <sup>2</sup> , 25°C ambient temp), reduced by the annual degradation factor (identified by the module manufacturer, usually 1%), and compared to rated values.	3	Ameresco
SS-G1a	Solar Photovoltaic System: Install a 138 kW-DC Solar system	A	• Array DC power, AC power, plane of array irradiance, and back of module temperature will be measured. Measured PV system power will then be corrected to standard test conditions (1000 W/m <sup>2</sup> , 25°C ambient temp), reduced by the annual degradation factor (identified by the module manufacturer, usually 1%), and compared to rated values.	3	Ameresco

- b) The ESCO will attend three annual meetings to review the Measurement & Verification results and reconcile energy savings.
- 7. Equipment Maintenance: The ESCO will provide no equipment maintenance or repairs after the warranty period. Following the completion of the installation and Owner acceptance of the Equipment, the Owner shall provide all necessary service, repairs, and adjustments to the Equipment so that the Equipment will perform in the manner and to the extent set forth in the Proposal. The ESCO shall have no obligation to service or maintain the Equipment after the warranty period.
- 8. Operation and Maintenance Procedures: None provided for existing equipment. Operation and maintenance manual will be provided for the installed equipment.
- 9. Warranty: The ESCO will warrant solar panels for 25 years and inverters for 10 years following Notice of Substantial Completion; all other material and workmanship will be warranted for 1 year following Notice of Substantial Completion.
- 10. Hazardous Waste: Should the project require removal or disposal of hazardous material, the ESCO may have the hazardous material or substances removed and disposed of at the request of the Owner. The ESCO will not assume ownership of the material, but may act on behalf of the Owner to properly remove and dispose of the material. The Owner shall pay the ESCO for the cost of such work. The Owner agrees and acknowledges that it has not relied on or employed the ESCO to analyze or identify the presence of any hazardous substance on the Owner's premises. The cost of hazardous material abatement and disposal is not included in this proposal with the exception of PCB ballasts.

#### IV. PROJECT COSTS

##### A. MAXIMUM PROJECT COST

The ESCO guarantees that the Maximum Project Cost will not exceed Two Million Thirty Six Thousand Seven Hundred Fifty Dollars and No Cents( \$2,036,750 ). This cost does not include sales tax, DES Energy Program project management fees, or continued measurement and verification charges. With sales tax, DES Energy Program project management fees, and continued measurement and verification (for Years 2 and 3) the Total Project Cost is Two Million Three Hundred Two Thousand Three Hundred Seventy Four Dollars and No Cents(\$2,302,374 ). The ESCO does not guarantee the value of sales tax or DES Energy Program project management fees.



B. PROJECT COST TABLE

PROJECT COSTS	Solar	Lighting	Total Project Costs
Engineering Audit	\$ 53,280	\$ -	\$ 53,280
Estimated Labor and Material Cost	\$ 1,403,898	\$ -	\$ 1,403,898
M,W,G Design @ 10.0% of Labor & Material	\$ 140,390		\$ 140,390
Lighting Design @ 6.0% of Labor & Material		\$ -	\$ -
Construction Mgt @ 6.0% of Labor & Material	\$ 84,234	\$ -	\$ 84,234
Bonding @ 2.0% of Labor & Material	\$ 28,078	\$ -	\$ 28,078
ESCO Overhead @ 10.0% of Labor & Material	\$ 140,390	\$ -	\$ 140,390
ESCO Profit @ 8.0% of Labor & Material	\$ 112,312	\$ -	\$ 112,312
1st Year of Ameresco M&V			\$ 3,973
Subtotal:	\$ 1,962,582	\$ -	\$ 1,966,555
Construction Contingency @ 5.0% of CC	\$ 70,195	\$ -	\$ 70,195
<b>Subtotal - Maximum Project Cost:</b>	\$ 2,032,777	\$ -	\$ 2,036,750
Est. Sales Tax @ 9.6% of Maximum Project Cost	\$ 195,147	\$ -	\$ 195,528
2 Additional Years of M&V - Ameresco (includes tax)			\$ 6,096
3 Years of M&V - DES			\$ 4,000
DES Project Management Fees			\$ 60,000
<b>TOTAL PROJECT PRICE:</b>	\$ 2,227,924	\$ -	\$ 2,302,374
Sales Tax Rebate (on L&M cost only)	\$ -	\$ -	\$ 101,081
PTA Contribution	\$ -	\$ -	\$ 50,000
Comm. Request Grant Request			\$ 500,000
Estimated Client Net Cost (excluding add'tl years M&V)			\$ 1,641,197
Client Initial Cash Payment of Non-State Dollars			\$ 1,641,197
Client Initial Cash Payment of State Dollars			\$ -
Cost of Debt Issuance			\$ -
<b>Amount to be Financed by Client:</b>			\$ -
<b>Year 1 Estimated Cash Flow:</b>			\$ 61,279
<b>Year 1 Cash Flow Based on Guaranteed Energy Savings (95%):</b>			\$ 58,215

C. ITEMS INCLUDED IN MAXIMUM PROJECT COST

1. Maximum project costs include the following:
  - a) Engineering audit, including the cost for preparation of this proposal. This is a fixed fee.
  - b) Engineering design. This is a fixed fee.
  - c) Construction management services. This is a fixed fee.
  - d) Installation of the ESCO Equipment including the following costs:
    - (1) All costs paid by the ESCO for the installation of the ESCO Equipment. This includes costs paid to subcontractors or directly to ESCO personnel when related to installation or system verification of the ESCO Equipment.
    - (2) The portion of reasonable travel, lodging, and meal expenses of the ESCO or of its officers or employees incurred while traveling in discharge of duties connected with the Work.
    - (3) Cost of all equipment, materials, supplies and equipment incorporated in the Work, including costs of transportation thereof.
    - (4) Cost or rental charges, including transportation and maintenance, of all materials, supplies, equipment, temporary facilities, and hand tools not owned by the workers which are consumed in the performance of the Work, and the cost less salvage value on such items used but not consumed which remain the property of the ESCO.
    - (5) Cost of premiums for all bonds and insurance, which the ESCO is required to purchase and maintain.
    - (6) Permit fees, royalties, and deposits lost for causes other than the ESCO's negligence.
    - (7) Losses and expenses not compensated by insurance or otherwise sustained by the ESCO in connection with the Work, provided they have resulted from causes other than the fault or neglect of the ESCO. Such losses shall include settlements made with the written consent and approval of the Owner. If, however, such loss requires reconstruction and the ESCO is placed in charge thereof, the ESCO shall be paid for its services a fee.
    - (8) Minor expenses such as copies, long distance telephone calls, telephone service at the site, express mail services, and similar petty cash items.
    - (9) Demolition cost and cost of removal of all debris.
    - (10) Costs incurred due to an emergency affecting the safety of persons and property.
    - (11) Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by the Owner.
    - (12) The cost of construction financing including contingency and an allowance for Owner initiated scope improvements only if agreed to by the Owner and DES Energy Program in advance.
    - (13) Cost of equipment startup, training and system verification performed by the ESCO.
    - (14) Bonding, Liability Insurance, and Builder's Risk Insurance.

- (15) Overhead and Profit. This includes the ESCO's remuneration for compensation of personnel, expenses, risks related to the project, and profit. This is a fixed fee.
- (16) Metering equipment costs for any permanent metering or monitoring equipment left on site.
- (17) The ESCO shall provide a Schedule of Values at the end of construction bidding. The schedule of values will include all costs related to the installation of the ESCO equipment, excepting fixed fee items.

#### D. EXCLUSIONS

1. Maximum project costs do not include the following:
  - a) Modifications or upgrades of electrical service or distribution systems
  - b) Permanent installation of roof guardrail and safety anchor systems
  - c) Structural upgrades to the existing structure necessary to support the Solar PV system
  - d) Overtime and work performed outside of normal business hours
  - e) Annual completion of utility forms necessary to receive the Renewable Energy Production Incentive payments
  - f) Internet connection for solar data acquisition system

#### E. CONSTRUCTION CONTINGENCY

A construction contingency of \$70,195 (not including sales tax) has been established for this project. The contingency is for items necessary to complete the original scope of work upon approval by the Owner and DES Energy Program. Such approval for the use of contingency funds for work in the original scope shall not be unreasonably withheld. The ESCO shall not be allowed to mark-up contingency funds expended for items included in the original scope of this project. The ESCO and Owner will jointly manage any contingency left after the project scope is completed. The ESCO shall be allowed to mark-up items beyond the original scope and approved by Owner. All unused construction contingency funds shall reduce the overall project cost to the Owner.

#### F. ONGOING SERVICES

Ongoing measurement and verification for the first 3 year(s) are included in the project fees. After the end of Year 3, the ESCO will present a proposal to the Owner for ongoing measurement and verification services for future years, at the owner's request. These services will verify energy production and provide engineering assistance in maintaining system production as described in Section III. The owner may cancel these services at any time. Such cancellation will also terminate the energy savings guarantee (Section XI).

#### G. ACCOUNTING RECORDS

The ESCO shall check all material, equipment, and labor entering into the Work and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement. The accounting system shall be satisfactory to the Owner. The Owner shall be afforded access to all the ESCO's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to this Contract, and the Contractor shall preserve all such records for a period of three years, or for such longer period as may be required by law, after the final payment.

**H. RECONCILIATION OF LABOR & MATERIAL COSTS**

The financed amount is based on an estimate of Labor & Material costs. In recognition that actual Labor & Material costs may vary from the estimate, the following procedures are established to reconcile this difference:

- a) When actual Labor & Material costs exceed the estimated Labor & Material costs (plus contingency), the additional expense will be borne by the ESCO without affecting the Owner’s payment.
- b) When actual Labor & Material costs are less than the estimated Labor & Material costs (plus Contingency), the remaining funds will be retained by the Owner.

**I. DIVERSE BUSINESS PARTICIPATION GOALS FOR THIS PROJECT**

Ameresco supports the State of Washington’s diverse business inclusion plan targets and recognizes the ability of the DES ESCO program to participate in contributing to these goals. Ameresco understands the unique nature of ESCO work and acknowledges the responsibility to DES and the client agency to provide a project that meets the client’s needs while providing the guaranteed savings as agreed to and contracted. To support diverse business outreach in Washington State Ameresco has established the following diverse business participation goals for this project:

<b>State Certified Categories</b>	<b>Original Contract Percentages</b>	<b>Percentage for construction (This Project)</b>	<b>Percentage for services (This Project)</b>
Minority-owned business	10%	0%	0%
Women-owned business	6%	0%	0%
Veteran-owned business	5%	0%	0%
Small/mini/micro business	5%	0%	0%

Ameresco will not be able to meet the original diverse participation goals for the following reasons:

- This is a solar-only project that will use only one subcontractor for construction. The solar contractor does not meet the criteria for a minority, veteran, woman, etc. owned business

**V. RECOMMENDATIONS FOR REPLACEMENT OF EXISTING EQUIPMENT**

N/A

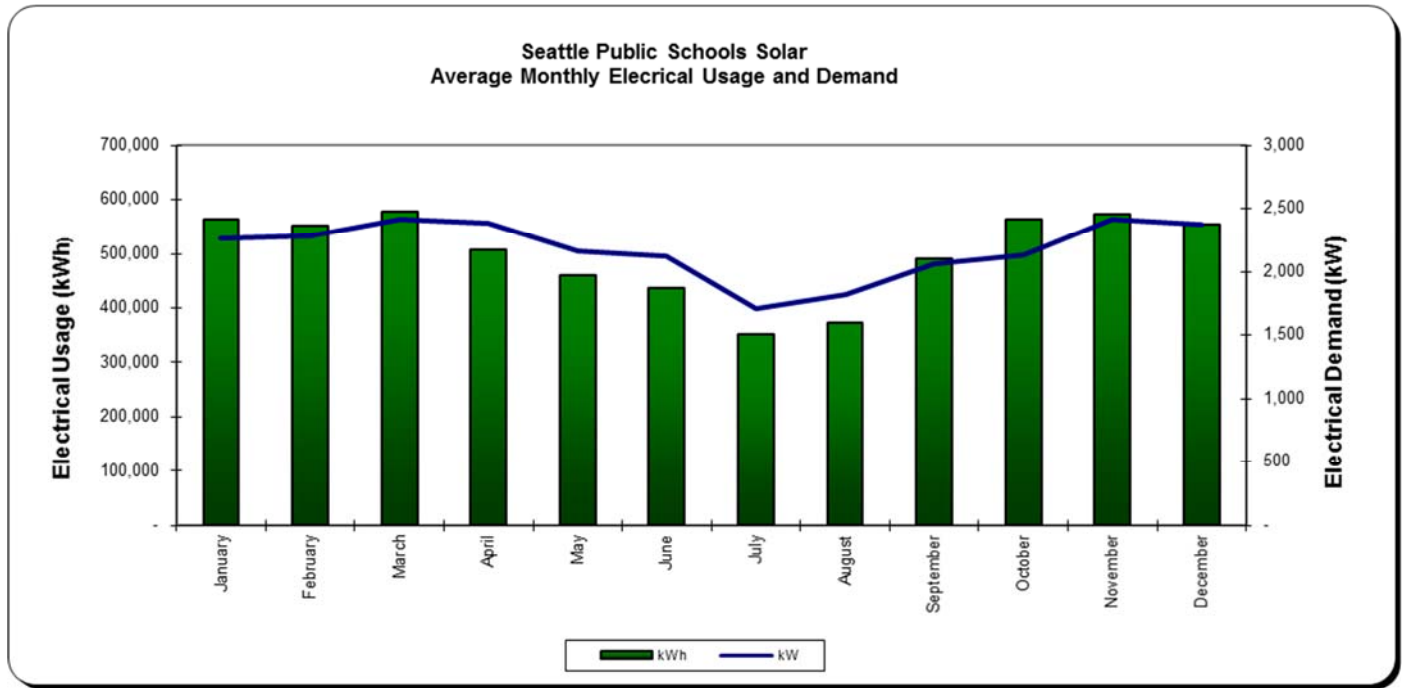
**VI. STANDARDS OF COMFORT SERVICE**

N/A

## VII. BASELINE ENERGY CONSUMPTION

### A. OVERALL RESOURCE USE

Fuel	Avg Annual Cost \$	Avg Annual Consumption	Time Period	Provider
Electricity (kWh)	\$ 448,807.00	6,005,341	2015 - 2016	Seattle City Light
Electricity (kW)		26,177		



### B. BY FACILITY RESOURCE USE

Facility	Area (sqft)	Annual Electrical Usage		Annual Gas Usage		Overall EUI (kBtu/sqft)	Energy Cost (\$/sqft)
		(kWh)	(kBtu)	(Therms)	(kBtu)		
Arbor Heights ES	90,763	(1)	(1)	(1)	(1)	(1)	(1)
Bailey Gatzert ES	52,924	561,941	1,917,905	0	0	36.2	\$ 0.78
Hazel Wolf K-8	92,000	(1)	(1)	(1)	(1)	(1)	(1)
South Shore K-8	138,705	845,953	2,887,236	18,593	1,859,300	34.2	\$ 0.58
Ballard High School	242,000	2,165,058	7,389,343	12,903	1,290,250	35.9	\$ 1.39
Denny Int'l MS (2)	138,778	2,432,389	8,301,744	0	0	59.8	\$ 1.27
<b>Total</b>	<b>755,170</b>	<b>6,005,341</b>	<b>20,496,227</b>	<b>31,496</b>	<b>3,149,550</b>	<b>166.1</b>	<b>\$ 0.84</b>

(1) - Arbor Heights and Hazel Wolf are sites that underwent major renovation and have not recorded a full year of utility history since reopening. (2) - Square footage is for Denny Int'l. Middle School which shares electric and gas service with Sealth HS, utility data is reflective of both facilities.

## VIII. ESTIMATED ANNUAL SAVINGS AMOUNT AND UTILITY INCENTIVE

### A. ELECTRICAL

The ESCO estimates that annual electrical costs will be reduced by \$59,206 . This estimate is based on an annual electrical energy purchase avoidance of 864,328 kWh.

### B. UTILITY INCENTIVE

N/A.

## IX. METHOD OF CALCULATING ENERGY COST SAVINGS

### A. ENERGY AUDIT

The energy cost savings are calculated in Exhibit 1. These savings calculations have been reviewed and accepted by the DES Energy Program project management, the Owner and the ESCO.

### B. CALCULATION OF SAVINGS

1. The Owner and ESCO agree that the energy cost savings exists if the ESCO equipment performs as described below (as measured per Section III.6):
  - a) Solar Photovoltaic System: The PV system performs properly when the measured power output, when corrected to standard test conditions and reduced by the warranted degradation factor, meets or exceeds 95% of the designed output.
2. The Owner and the ESCO agree that should the ESCO installed equipment not perform as outlined in Section IX.B.1, the ESCO shall pay the equivalent value of the guaranteed level of the calculated energy production associated with the failed area. The Owner agrees to notify the ESCO by telephone within two working days of detecting any non-performing ESCO installed equipment with a follow-up in writing within three business days.
3. The ESCO shall have two weeks from notification to repair the ESCO equipment without reduction of savings.
4. Modifications to Baseline by Owner: The Owner shall maintain all existing facilities and installed equipment during the term of this contract at or above current maintenance levels. Owner agrees to maintain the energy efficiency of the systems installed.

## X. FINANCING

Project financing will be provided by the Owner.

## XI. ENERGY SAVINGS GUARANTEE

The ESCO guarantees that the equipment will perform as indicated in Section IX - Method of Calculating Energy Savings and Energy Cost Savings. This performance level is guaranteed for 3 year(s) following the notice of commencement of savings (defined as Year 1), or for the duration of the monitoring and verification services, whichever is shorter. Based on this

performance, and as indicated in Exhibit 1, electrical production will not be less than 821,112 kWh per year. This corresponds with 95% of the estimated energy savings.

In the event that the guaranteed performance in Year(s) 1-3, pursuant to Section IX – Method of Calculating Energy Cost Savings, is less than the guaranteed minimum, the ESCO shall pay the Owner in accordance with Section IX.B.2.

## **XII. ESCO COMPENSATION**

### **A. PAYMENTS**

1. Owner agrees to make progress payments based on construction progress and one subsequent payment for retainage.
2. Retainage will be released within 45 days after receipt of all lien releases, L&I releases, and Revenue and Employment Security certificates and releases by Owner.

## **XIII. TERM OF AGREEMENT**

Subject to the following sentence, the term of this Contract shall be 3 year(s) beginning with the Notification of Commencement of Energy Savings. Nonetheless, the Contract shall be effective and binding upon the parties immediately upon its execution, and the period from contract execution until the Commencement Date shall be known as the "Interim Period." All energy production achieved during the Interim Period will be fully credited to Customer and may be used to offset any loss of energy production as mutually agreed to by the DES Energy Program manager, Owner, and the ESCO.

## **XIV. TERMINATION VALUE**

Upon commencement of energy savings, Owner may at any time terminate this Agreement.

Any termination shall fully and finally terminate and extinguish all of the Owner's rights and all of the ESCO's obligations under this agreement.

## **XV. PROJECT SCHEDULE**

The ESCO will complete design work within 90 days of Notice to Proceed. Because some of the sites will not be available for installation until summer 2018, the construction schedule is as follows: Construction work will be substantially complete within 365 days of design acceptance. Final completion will be within 420 days of design acceptance.

## **XVI. EXTENT OF SUBCONTRACTING**

The ESCO may subcontract the energy audit, design, construction management, start-up, and training portions of this Contract to qualified firms at its sole discretion. Construction subcontracts will be awarded competitively.

The ESCO will endeavor to satisfy the MWBE goals of Washington State. The ESCO will not be required to meet these goals if the project budget is exceeded and cost effectiveness is impaired.

## **XVII. INSURANCE AND BONDING**

1. The ESCO shall provide a payment and performance bond in accordance with Exhibit 3. Builders Risk Insurance will also be provided by the ESCO.

2. For the purposes of this Agreement, the "Sum Amount of Bond" shall be \$1,569,446 . This amount does not include any construction contingencies.
3. The bond amount consists of the following:
 

(a)	Labor and Material and Bond Cost	\$1,431,976
(b)	Sales Tax	\$137,470
(c)	Bond Total	\$1,569,446

  - (2) Certificates of General Liability Insurance will be provided prior to Contract Signing. The State Of Washington shall be named as An Additional Insured on all insurance certificates.
4. The ESCO shall provide a payment and performance bond in the amount of 100% of the construction cost, as defined in the Energy Services Agreement Addendum. The amount shall include all authorized changes and state sales tax. The Bond shall be in the form attached to the Conditions of the Energy Services Agreement. The Contract listed on the bond form shall be the Addendum No. and Agreement No. which incorporates the work, and the "Contract Date" shall be the date of the Addendum. The full and just sum of the Bond shall be as defined above and shall include the actual cost of purchasing and installing the ESCO equipment, job superintendent, and state sales tax. The Bond shall specifically exclude coverage for those portions of the Energy Services Agreement and/or Energy Services Agreement Addendum pertaining to design services, energy cost savings guarantee, maintenance guarantee, utility incentives, efficiency guarantees, and any other clauses which do not relate specifically to construction management and supervision of work for purchasing and installing of the ESCO Equipment or for work to be accomplished by the Owner. The Bond shall be with a Surety or Bonding Company that is registered with the State of Washington Insurance Commissioner's Office.

## **XVIII. RENEGOTIATION**

Both parties recognize that during the project implementation, the DES Energy Program Manager, Owner, and the ESCO may mutually agree to various modifications and that the energy savings may change as a result. Further, local code officials may require unanticipated changes to the project scope. In either event, both parties shall negotiate in good faith to restructure the project to maintain the intent of this Agreement.

## **XIX. EXHIBITS AND TABLES**

Please see attached exhibits & tables



A. TABLE 1 FINANCIAL ANALYSIS

PROJECT COSTS	Solar	Lighting	Total Project Costs
Engineering Audit	\$ 53,280	\$ -	\$ 53,280
Estimated Labor and Material Cost	\$ 1,403,898	\$ -	\$ 1,403,898
M,W,G Design @ 10.0% of Labor & Material	\$ 140,390		\$ 140,390
Lighting Design @ 6.0% of Labor & Material		\$ -	\$ -
Construction Mgt @ 6.0% of Labor & Material	\$ 84,234	\$ -	\$ 84,234
Bonding @ 2.0% of Labor & Material	\$ 28,078	\$ -	\$ 28,078
ESCO Overhead @ 10.0% of Labor & Material	\$ 140,390	\$ -	\$ 140,390
ESCO Profit @ 8.0% of Labor & Material	\$ 112,312	\$ -	\$ 112,312
1st Year of Ameresco M&V			\$ 3,973
Subtotal:	\$ 1,962,582	\$ -	\$ 1,966,555
Construction Contingency @ 5.0% of CC	\$ 70,195	\$ -	\$ 70,195
<b>Subtotal - Maximum Project Cost:</b>	<b>\$ 2,032,777</b>	<b>\$ -</b>	<b>\$ 2,036,750</b>
Est. Sales Tax @ 9.6% of Maximum Project Cost	\$ 195,147	\$ -	\$ 195,528
2 Additional Years of M&V - Ameresco (includes tax)			\$ 6,096
3 Years of M&V - DES			\$ 4,000
DES Project Management Fees			\$ 60,000
<b>TOTAL PROJECT PRICE:</b>	<b>\$ 2,227,924</b>	<b>\$ -</b>	<b>\$ 2,302,374</b>
Sales Tax Rebate (on L&M cost only)	\$ -	\$ -	\$ 101,081
PTA Contribution	\$ -	\$ -	\$ 50,000
Comm. Request Grant Request			\$ 500,000
Estimated Client Net Cost (excluding add'l years M&V)			\$ 1,641,197
Client Initial Cash Payment of Non-State Dollars			\$ 1,641,197
Client Initial Cash Payment of State Dollars			\$ -
Cost of Debt Issuance			\$ -
<b>Amount to be Financed by Client:</b>			<b>\$ -</b>
<b>Year 1 Estimated Cash Flow:</b>			<b>\$ 61,279</b>
<b>Year 1 Cash Flow Based on Guaranteed Energy Savings (95%):</b>			<b>\$ 58,215</b>

**ECONOMIC ASSUMPTIONS**

Interest Rate :	
Financing Term:	0 years
Est Annual Rate of Energy Increases:	3.50%
Savings Guarantee:	95%
Annual Production Degradation	0.5%
Annual Cash Flow	\$ 5,000

**Grant Metrics**

Comm. Request	\$ 500,000
Non state funds	\$ 1,691,197
State funds	\$ -
Total	\$ 2,191,197
Leverage	3.38
Com. Payback	32.2

ANNUAL ENERGY PRODUCTION	Mechanical	Water	Lighting	General	Total
Electrical Savings (kWh)	864,328	0	0	0	864,328
Electrical Savings (kW)	0	0	0	0	0
Nat Gas Savings (Therms)	0	0	0	0	0
Oil (Gal)	0	0	0	0	0
Propane (Gal)	0	0	0	0	0
Water Savings (CCF)	0	0	0	0	0
\$ Saved	\$ 59,206	\$ -	\$ -	\$ -	\$ 59,206

B. TABLE 2 CASH FLOW

**PROJECT SAVINGS BASED ON ESTIMATED ENERGY SAVINGS (100%)**

Year ending	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Reference year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Renewable Energy Production (kWh)	-	864,328	860,007	855,707	851,428	847,171	842,935	838,720	834,527	830,354	826,202	822,071	817,961	813,871	809,802	805,753	801,724	797,715	793,727	789,758	785,809
Avoided Cost (\$/kwh)	\$ 0.0685	\$ 0.0709	\$ 0.0734	\$ 0.0759	\$ 0.0786	\$ 0.0814	\$ 0.0842	\$ 0.0872	\$ 0.0902	\$ 0.0934	\$ 0.0966	\$ 0.1000	\$ 0.1035	\$ 0.1071	\$ 0.1109	\$ 0.1148	\$ 0.1188	\$ 0.1229	\$ 0.1272	\$ 0.1317	\$ 0.1363
Renewable Energy Value	\$ -	\$ 61,279	\$ 63,106	\$ 64,988	\$ 66,927	\$ 68,923	\$ 70,978	\$ 73,095	\$ 75,275	\$ 77,521	\$ 79,833	\$ 82,214	\$ 84,666	\$ 87,191	\$ 89,791	\$ 92,469	\$ 95,227	\$ 98,067	\$ 100,992	\$ 104,004	\$ 107,106
Total Savings:	\$ -	\$ 61,279	\$ 63,106	\$ 64,988	\$ 66,927	\$ 68,923	\$ 70,978	\$ 73,095	\$ 75,275	\$ 77,521	\$ 79,833	\$ 82,214	\$ 84,666	\$ 87,191	\$ 89,791	\$ 92,469	\$ 95,227	\$ 98,067	\$ 100,992	\$ 104,004	\$ 107,106
Cumulative Savings:	\$ -	\$ 61,279	\$ 124,385	\$ 189,374	\$ 256,300	\$ 325,223	\$ 396,202	\$ 469,297	\$ 544,573	\$ 622,093	\$ 701,926	\$ 784,139	\$ 868,805	\$ 955,996	\$ 1,045,787	\$ 1,138,257	\$ 1,233,484	\$ 1,331,551	\$ 1,432,543	\$ 1,536,548	\$ 1,643,654

**PROJECT SAVINGS BASED ON GUARANTEED ENERGY SAVINGS (95)%**

Year ending	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Renewable Energy Value	\$ -	\$ 58,215	\$ 59,951.03	\$ 61,739	\$ 63,580	\$ 65,477	\$ 67,430	\$ 69,441	\$ 71,512	\$ 73,645	\$ 75,841	\$ 78,103	\$ 80,432	\$ 82,831	\$ 85,302	\$ 87,846	\$ 90,466	\$ 93,164	\$ 95,943	\$ 98,804	\$ 101,751
Total Savings:	\$ -	\$ 58,215	\$ 59,951	\$ 61,739	\$ 63,580	\$ 65,477	\$ 67,430	\$ 69,441	\$ 71,512	\$ 73,645	\$ 75,841	\$ 78,103	\$ 80,432	\$ 82,831	\$ 85,302	\$ 87,846	\$ 90,466	\$ 93,164	\$ 95,943	\$ 98,804	\$ 101,751
Cumulative Savings:	\$ -	\$ 58,215	\$ 118,166	\$ 179,905	\$ 243,485	\$ 308,962	\$ 376,392	\$ 445,832	\$ 517,344	\$ 590,989	\$ 666,830	\$ 744,933	\$ 825,365	\$ 908,196	\$ 993,498	\$ 1,081,344	\$ 1,171,810	\$ 1,264,974	\$ 1,360,916	\$ 1,459,720	\$ 1,561,471

**ANNUAL PROJECT COSTS**

Amount Financed: \$ -  
Cash Payment: \$ 1,641,197

Year ending	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Principal Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Principal Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ameresco Measurement and Verification	\$ -	\$ -	\$ 2,781	\$ 2,781	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DES Measurement and Verification	\$ -	\$ -	\$ 2,000	\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Annual Costs to Client	\$ 1,641,197	\$ -	\$ 4,781	\$ 4,781	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**NET ANNUAL CASH FLOW WHEN FINANCING PROJECT:**

Year ending	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Cash Flow from Estimated Energy Savings (with inflation) Cumulative	\$(1,641,197)	\$ 61,279	\$ 58,325	\$ 60,208	\$ 66,927	\$ 68,923	\$ 70,978	\$ 73,095	\$ 75,275	\$ 77,521	\$ 79,833	\$ 82,214	\$ 84,666	\$ 87,191	\$ 89,791	\$ 92,469	\$ 95,227	\$ 98,067	\$ 100,992	\$ 104,004	\$ 107,106
Cash Flow from Guaranteed Energy Savings (with inflation) Cumulative	\$(1,641,197)	\$ 58,215	\$ 55,170	\$ 56,958	\$ 63,580	\$ 65,477	\$ 67,430	\$ 69,441	\$ 71,512	\$ 73,645	\$ 75,841	\$ 78,103	\$ 80,432	\$ 82,831	\$ 85,302	\$ 87,846	\$ 90,466	\$ 93,164	\$ 95,943	\$ 98,804	\$ 101,751
	\$(1,641,197)	\$(1,582,983)	\$(1,527,812)	\$(1,470,854)	\$(1,407,274)	\$(1,341,797)	\$(1,274,367)	\$(1,204,927)	\$(1,133,415)	\$(1,059,771)	\$(983,930)	\$(905,827)	\$(825,394)	\$(742,563)	\$(657,261)	\$(569,415)	\$(478,949)	\$(385,785)	\$(289,843)	\$(191,039)	\$(89,288)

C. TABLE 3 FULL LIST OF MEASURES

**Project:** Seattle Public Schools Solar  
**Measure:** All Measures  
**Date:** February 22, 2017

ECM #	Conservation Measure	Baseline			Proposed			Savings		Financials			
		Current Annual Consume (kWh)	Current Electric Cost (\$)	Current Total Cost (\$)	Future Total Consume (kWh)	Future Electric Cost (\$)	Future Total Cost (\$)	Annual Savings Consume (kWh)	Annual Resource Savings (\$)	Labor/Mat'l Cost	Estimated Utility Incentive (\$)	Final Labor/Mat'l Cost (\$)	Simple Payback
	<b>Arbor Heights (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$0	\$	
	<i>General Conservation Measures</i>												
AH-G1a	Solar Photovoltaic System: Install a 142.14 kW-DC Solar system	161,514	\$ 11,064	\$ 11,064	-	\$ -	\$ -	161,514	\$ 11,064	\$ 248,646	\$ -	\$ 248,646	22.47
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$0	\$ -	
	<b>Cascadia (Wilson Pacific) (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$0	\$	
	<i>General Conservation Measures</i>												
CA-G1a	Solar Photovoltaic System: Install a 144.9 kW-DC Solar system	155,946	\$ 10,682	\$ 10,682	-	\$ -	\$ -	155,946	\$ 10,682	\$ 276,203	\$ -	\$ 276,203	25.86
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
	<b>Robert Eagle Staff (Wilson Pacific) (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$	\$	
	<i>General Conservation Measures</i>												
RE-G1a	Solar Photovoltaic System: Install a 146.28 kW-DC Solar system	158,718	\$ 10,872	\$ 10,872	-	\$ -	\$ -	158,718	\$ 10,872	\$ 271,028	\$ -	\$ 271,028	24.93
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
	<b>Hazel Wolf (Pinehurst) (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$	\$	
	<i>General Conservation Measures</i>												
HW-G1a	Solar Photovoltaic System: Install a 93.84 kW-DC Solar system	98,566	\$ 6,752	\$ 6,752	-	\$ -	\$ -	98,566	\$ 6,752	\$ 188,697	\$ -	\$ 188,697	27.95
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
	<b>Olympic Hills (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$	\$	
	<i>General Conservation Measures</i>												
OH-G1a	Solar Photovoltaic System: Install a 149.04 kW-DC Solar system	159,143	\$ 10,901	\$ 10,901	-	\$ -	\$ -	159,143	\$ 10,901	\$ 259,246	\$ -	\$ 259,246	23.78
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
	<b>Seattle World School (T.T. Minor) (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$	\$	
	<i>General Conservation Measures</i>												
SW-G1a	Solar Photovoltaic System: Install a 147.66 kW-DC Solar system	160,637	\$ 11,004	\$ 11,004	-	\$ -	\$ -	160,637	\$ 11,004	\$ 258,159	\$ -	\$ 258,159	23.46
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
	<b>Thornton Creek (BEX IV)</b>		\$	\$		\$	\$		\$	\$	\$	\$	
	<i>General Conservation Measures</i>												
TH-G1a	Solar Photovoltaic System: Install a 144.9 kW-DC Solar system	155,375	\$ 10,643	\$ 10,643	-	\$ -	\$ -	155,375	\$ 10,643	\$ 255,867	\$ -	\$ 255,867	24.04

ECM #	Conservation Measure	Baseline			Proposed			Savings		Financials			
		Current Annual	Current Electric	Current Total	Future Total	Future Electric	Future Total	Annual Savings	Annual Resource	Labor/Mat'l	Estimated	Final	Simple
		Consume (kWh)	Cost (\$)	Cost (\$)	Consume (kWh)	Cost (\$)	Cost (\$)	Consume (kWh)	Savings (\$)	Cost	Utility Incentive (\$)	Labor/Mat'l Cost (\$)	Payback
<b>Ballard High School</b>													
<b>General Conservation Measures</b>													
BHS-G1a	Solar Photovoltaic System (Gym Standing Seam): Install a 122.13 kW-DC Solar system	134,601	\$ 9,220	\$ 9,220	-	\$ -	\$ -	134,601	\$ 9,220	\$ 221,962	\$ -	\$ 221,962	24.07
BHS-G1b	Solar Photovoltaic System (Theatre Ballasted): Install a 149.04 kW-DC Solar system	156,338	\$ 10,709	\$ 10,709	-	\$ -	\$ -	156,338	\$ 10,709	\$ 250,222	\$ -	\$ 250,222	23.37
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
<b>Bailey Gatzert</b>													
<b>General Conservation Measures</b>													
BC-G1a	Solar Photovoltaic System (Flush Mount): Install a 149.04 kW-DC Solar system	163,542	\$ 11,203	\$ 11,203	-	\$ -	\$ -	163,542	\$ 11,203	\$ 240,508	\$ -	\$ 240,508	21.47
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
<b>Denny International</b>													
<b>General Conservation Measures</b>													
DI-G1a	Solar Photovoltaic System: Install a 149.385 kW-DC Solar system	165,912	\$ 11,365	\$ 11,365	-	\$ -	\$ -	165,912	\$ 11,365	\$ 255,090	\$ -	\$ 255,090	22.45
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
<b>Hamilton International</b>													
<b>General Conservation Measures</b>													
HI-G1a	Solar Photovoltaic System: Install a 99.36 kW-DC Solar system	102,029	\$ 6,989	\$ 6,989	-	\$ -	\$ -	102,029	\$ 6,989	\$ 186,698	\$ -	\$ 186,698	26.71
			\$ -	\$ -		\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	
<b>Rainier View</b>													
<b>General Conservation Measures</b>													
RV-G1a	Solar Photovoltaic System: Install a 94.875 kW-DC Solar system	94,677	\$ 6,485	\$ 6,485	-	\$ -	\$ -	94,677	\$ 6,485	\$ 185,598	\$ -	\$ 185,598	28.62
<b>South Shore</b>													
<b>General Conservation Measures</b>													
SS-G1a	Solar Photovoltaic System: Install a 138 kW-DC Solar system	140,194	\$ 9,603	\$ 9,603	-	\$ -	\$ -	140,194	\$ 9,603	\$ 248,995	\$ -	\$ 248,995	25.93

D. TABLE 4 SELECTED MEASURES

ECM #	Conservation Measure	Baseline			Proposed			Savings/Production		Labor/Mat'l Cost	Estimated Utility Incentive \$	Final Labor/Mat'l Cost \$	Simple Payback
		Current Annual	Current Electric	Current Total	Future Total	Future Electric	Future Total	Annual Savings	Annual Resource				
		Consume kWh	Cost \$	Cost \$	Consume kWh	Cost \$	Cost \$	Consume kWh	Savings \$				
<b><u>Arbor Heights (BEX IV)</u></b>													
<i>General Conservation Measures</i>													
AH-G1a	Solar Photovoltaic System: Install a 142.14 kW-DC Solar system	161,514	11,064	\$11,064				161,514	\$11,064	\$248,646		\$248,646	22.47
<b><u>Hazel Wolf (Pinehurst) (BEX IV)</u></b>													
<i>General Conservation Measures</i>													
HW-G1a	Solar Photovoltaic System: Install a 93.84 kW-DC Solar system	98,566	6,752	\$6,752				98,566	\$6,752	\$188,697		\$188,697	27.95
<b><u>Ballard High School</u></b>													
<i>General Conservation Measures</i>													
BHS-G1a	Solar Photovoltaic System (Gym Standing Seam): Install a 122.13 kW-DC Solar system	134,601	9,220	\$9,220				134,601	\$9,220	\$221,962		\$221,962	24.07
<b><u>Bailey Gatzert</u></b>													
<i>General Conservation Measures</i>													
BC-G1a	Solar Photovoltaic System (Flush Mount): Install a 149.04 kW-DC Solar system	163,542	11,203	\$11,203				163,542	\$11,203	\$240,508		\$240,508	21.47
<b><u>Denny International</u></b>													
<i>General Conservation Measures</i>													
DI-G1a	Solar Photovoltaic System: Install a 149.385 kW-DC Solar system	165,912	11,365	\$11,365				165,912	\$11,365	\$255,090		\$255,090	22.45
<b><u>South Shore</u></b>													
<i>General Conservation Measures</i>													
SS-G1a	Solar Photovoltaic System: Install a 138 kW-DC Solar system	140,194	9,603	\$9,603				140,194	\$9,603	\$248,995		\$248,995	25.93
<b>Totals:</b>		864,328	\$ 59,206	\$ 59,206	-	\$ -	\$ -	864,328	\$ 59,206	\$ 1,403,898	\$ -	\$ 1,403,898	23.7

- EXHIBIT 1** Detailed Solar Audit Calculations (Provided electronically)
- EXHIBIT 2** Bond Form (Incorporated herein (AIA A312))
- EXHIBIT 3** Energy Services Agreement (Incorporated herein)
- EXHIBIT 4** Conceptual Drawings (Provided electronically)
- EXHIBIT 5** List of Major Equipment (Incorporated herein)
- EXHIBIT 6** Structural Review for Proposed Solar Installation(s) (Provided electronically)
- EXHIBIT 7** Copy of Interagency Agreement (Incorporated herein)

# **Interagency Agreement**

Date: January 8, 2016

*Department of Enterprise Services*

Interagency Agreement No: K3865

**Interagency Agreement Between the  
State of Washington  
Department of Enterprise Services  
and  
Seattle Public Schools**

This Agreement, pursuant to Chapter 39.34 RCW, is made and entered into by and between the Department of Enterprise Services, Engineering & Architectural Services, hereinafter referred to as "DES", and Seattle Public Schools, hereinafter referred to as the "CLIENT AGENCY".

The purpose of this Agreement is to establish a vehicle for DES to provide future Energy/Utility Conservation Project Management and Monitoring Services to the CLIENT AGENCY and to authorize the development of the energy services proposal.

Now therefore, in consideration of the terms and conditions contained herein, or attached and incorporated by reference and made a part hereof, the above-named parties mutually agree as follows:

## **1. Statement of Work**

DES shall furnish the necessary personnel and services and otherwise do all things necessary for or incidental to the performance of the work set forth in Attachment "A" and Attachment "C", attached hereto and incorporated herein by reference. Unless otherwise specified, DES shall be responsible for performing all fiscal and program responsibilities as set forth in Attachment "A" and Attachment "C".

Energy/Utility Conservation projects shall be authorized by Amendment to this Agreement.

## **2. Terms and Conditions**

All rights and obligations of the parties to this Agreement shall be subject to and governed by the terms and conditions contained in the text of this Agreement.

The CLIENT AGENCY shall provide the Energy Services Company (ESCO) with any additional contract language necessary to comply with the requirements established under federal grants, the American Recovery & Reinvestment Act of 2009 (ARRA) and the Energy Efficiency and Conservation Block Grant (EECBG). The ESCO and their subcontractors are required to comply with all applicable federal regulations and reporting procedures.

## **3. Period of Performance**

Subject to its other provisions, the period of performance of this master Agreement shall

commence when this Agreement is properly signed, and be completed on **December 31, 2019**, unless altered or amended as provided herein.

#### **4. Consideration**

Compensation under this Agreement shall be by Amendment to this Agreement for each authorized project. Each Amendment will include a payment schedule for the specific project.

For Project Management Services provided by DES under Attachment "A" of this Agreement, the CLIENT AGENCY will pay DES a Project Management Fee for services based on the total project value per Project Management Fees Schedule set forth in Attachment "B".

If the CLIENT AGENCY decides not to proceed with an Energy/Utility Conservation project that meets CLIENT AGENCY's cost effective criteria, then the CLIENT AGENCY will be charged a Termination Fee per Attachment "B". The Termination Fee will be based on the estimated Total Project Value outlined in the Energy Audit and Energy Services Proposal prepared by the ESCO.

If monitoring and verification services are requested by the CLIENT AGENCY and provided by DES under Attachment "C" of this Agreement, the CLIENT AGENCY will pay DES \$2,000.00 annually for each year of monitoring and verification services requested.

Compensation for services provided by the ESCO shall be paid directly to the ESCO by the CLIENT AGENCY, after DES has reviewed, approved and sent the invoices to the CLIENT AGENCY for payment.

#### **5. Billing Procedure**

DES shall submit a single invoice to the CLIENT AGENCY upon substantial completion of each authorized project, unless a project specified a Special Billing Condition in the Amendment. Substantial completion of the project will include the delivery and acceptance of closeout documents and commencement of energy savings notification. Each invoice will clearly indicate that it is for the services rendered in performance under this Agreement and shall reflect this Agreement and Amendment number.

DES will invoice for any remaining services within 60 days of the termination of this Agreement.

#### **6. Payment Procedure**

The CLIENT AGENCY shall pay all invoices received from DES within 90 days of receipt of properly executed invoice vouchers. The CLIENT AGENCY shall notify DES in writing if the CLIENT AGENCY cannot pay an invoice within 90 days.



## **7. Non-Discrimination**

In the performance of this Agreement, DES shall comply with the provisions of Title VI of the Civil Rights Act of 1964 (42 USC 200d), Section 504 of the Rehabilitation Act of 1973 (29 USC 794), and Chapter 49.60 RCW, as now or hereafter amended. DES shall not discriminate on the grounds of race, color, national origin, sex, religion, marital status, age, creed, Vietnam-Era and Disabled Veterans status, or the presence of any sensory, mental, or physical disability in:

- a) Any terms or conditions of employment to include taking affirmative action necessary to accomplish the objectives of this part and
- b) Denying an individual the opportunity to participate in any program provided by this Agreement through the provision of services, or otherwise afforded others.

In the event of DES's non-compliance or refusal to comply with the above provisions, this Agreement may be rescinded, canceled, or terminated in whole or in part, and DES declared ineligible for further Agreement with the CLIENT AGENCY. DES shall, however, be given a reasonable time in which to cure this noncompliance. Any dispute may be resolved in accordance with the "Disputes" procedure set forth therein.

## **8. Records Maintenance**

The CLIENT AGENCY and DES shall each maintain books, records, documents, and other evidence that sufficiently and properly reflect all direct and indirect costs expended by either party in the performance of the services described herein. These records shall be subject to inspection, review, or audit by personnel of both parties, other personnel duly authorized by either party, the Office of the State Auditor, and federal officials so authorized by law. DES will retain all books, records, documents, and other material relevant to this agreement for six years after expiration; and the Office of the State Auditor, federal auditors, and any persons duly authorized by the parties shall have full access and the right to examine any of these materials during this period.

## **9. Contract Management**

- a. The CLIENT AGENCY Representative on this Agreement shall be:

Richard Best  
Seattle Public Schools  
PO Box 34165  
Seattle, WA 98124-1165  
Telephone (206) 252-0644

The Representative shall be responsible for working with DES, approving billings and expenses submitted by DES, and accepting any reports from DES.

b. The DES Project Manager on this Agreement shall be:

Todd Flynn  
Department of Enterprise Services  
Engineering and Architectural Services  
PO Box 41476  
Olympia, WA 98504-1476  
Telephone (360) 407-9375

Todd Flynn will be the contact person for all communications regarding the conduct of work under this Agreement.

#### **10. Hold Harmless**

Each party to this Agreement shall be responsible for its own acts and/or omissions and those of its officers, employees and agents. No party to this Agreement shall be responsible for the acts and/or omissions of entities or individuals not a party to this Agreement.

#### **11. Agreement Alterations and Amendments**

The CLIENT AGENCY and DES may mutually amend this Agreement. Such Amendments shall not be binding unless they are in writing and signed by personnel authorized to bind the CLIENT AGENCY and DES or their respective delegates.

#### **12. Termination**

Except as otherwise provided in this Agreement, either party may terminate this Agreement upon thirty (30) days written notification. If this Agreement is so terminated, the terminating party shall be liable only for performance in accordance with the terms of this Agreement for performance rendered prior to the effective date of termination.

#### **13. Disputes**

If a dispute arises under this Agreement, it shall be determined in the following manner: The CLIENT AGENCY shall appoint a member to the Dispute Board. The Director of DES shall appoint a member to the Dispute Board. The CLIENT AGENCY and DES shall jointly appoint a third member to the Dispute Board. The Dispute Board shall evaluate the dispute and make a determination of the dispute. The determination of the Dispute Board shall be final and binding on the parties hereto.

#### **14. Order of Precedence**

In the event of an inconsistency in this Agreement, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order:

- a) Applicable Federal and State Statutes and Regulations
- b) Terms and Conditions

- c) Attachment "A", Project Management Scope of Work; Attachments "B", Project Management Fees; and Attachment "C", Monitoring Services Scope of Work, and
- d) Any other provisions of the Agreement incorporated by reference.

**15. All Writings Contained Herein**

This Agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties hereto.


---

**AUTHORIZATION TO PROCEED**

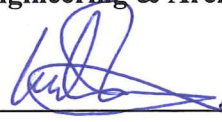
---

Agreed to and signed by:

**Seattle Public Schools**

  
 \_\_\_\_\_  
 Signature  
 Philip Brock  
 \_\_\_\_\_  
 Name  
 Director  
 \_\_\_\_\_  
 Title  
 9-22-14  
 \_\_\_\_\_  
 Date

**Department of Enterprise Services  
 Engineering & Architectural Services**

  
 \_\_\_\_\_  
 Signature  
 William J. Frare, P.E.  
 \_\_\_\_\_  
 Name  
 Assistant Director  
 \_\_\_\_\_  
 Title  
 9-25-2016  
 \_\_\_\_\_  
 Date

The Department of Enterprise Services provides equal access for all people without regard to race, creed, color, religion, national origin, age, gender, sex, marital status, or disability. Contract information is available in alternative formats. For more information, please call Andrea Faust at (360) 407-9365.

K3865agraf

# ATTACHMENT A

## Scope of Work Energy/Utility Conservation Projects Management Services

### Statewide Energy Performance Contracting Program Master Energy Services Agreement No. 2015-181

DES will provide the following project management services for each specific project for the CLIENT AGENCY. Each individual project shall be authorized by Amendment to this Agreement.

1. Assist the CLIENT AGENCY in the selection of an Energy Service Company (ESCO) consistent with the requirements of RCW 39.35A for local governments; or 39.35C for state agencies and school districts.
2. Assist in identifying potential energy/utility conservation measures and estimated cost savings.
3. Negotiate scope of work and fee for ESCO audit of the facility(s).
4. Assist in identifying appropriate project funding sources and assist with obtaining project funding.
5. Assist in negotiating the technical, financial and legal issues associated with the ESCO's Energy Services Proposal.
6. Review and recommend approval of ESCO energy/utility audits and Energy Services Proposals.
7. Provide assistance during the design, construction and commissioning processes.
8. Review and approve the ESCO invoice vouchers for payment.
9. Assist with final project acceptance.
10. Provide other services as required to complete a successful energy performance contract.

# ATTACHMENT B

## Fee Schedule

2015-17 Interagency Reimbursement Costs  
for Project Management Fees to Administer  
Energy/Utility Conservation Projects

<u>TOTAL PROJECT VALUE</u>	<u>PROJECT MANAGEMENT FEE</u>	<u>TERMINATION</u>
5,000,001 .....6,000,000.....	\$66,000.....	25,700
4,000,001.....5,000,000.....	65,000.....	25,400
3,000,001 .....4,000,000.....	64,000.....	25,000
2,000,001 .....3,000,000.....	60,000.....	23,400
1,500,001 .....2,000,000.....	56,000.....	21,800
1,000,001 .....1,500,000.....	49,500.....	19,300
900,001..... 1,000,000.....	42,000.....	16,400
800,001 .....900,000.....	39,600.....	15,400
700,001 .....800,000.....	36,800.....	14,400
600,001 .....700,000.....	35,000.....	13,700
500,001 .....600,000.....	32,400.....	12,600
400,001 .....500,000.....	29,000.....	11,300
300,001 .....400,000.....	24,800.....	9,700
200,001 .....300,000.....	19,800.....	7,700
100,001 .....200,000.....	13,800.....	5,400
50,001 .....100,000.....	7,500.....	3,500
20,001 .....50,000.....	4,000.....	2,000
0.....20,000 .....	2,000.....	1,000

The project management fee on projects over \$6,000,000 is 1.1% of the project cost. The maximum DES termination fee is \$25,700.

1. These fees cover project management services for energy/utility conservation projects managed by DES's Energy Program.
2. Termination fees cover the selection and project management costs associated with managing the ESCO's investment grade audit and proposal that identifies cost effective conservation measures if the CLIENT AGENCY decides not to proceed with the project through DES.
3. If the project meets the CLIENT AGENCY's cost effectiveness criteria and the CLIENT AGENCY decides not to move forward with a project, then the CLIENT AGENCY will be invoiced per Attachment B Termination or \$25,700 whichever is less. If the CLIENT AGENCY decides to proceed with the project then the Agreement will be amended per Attachment B for Project Management Fee.
4. If the audit fails to produce a project that meets the CLIENT AGENCY's established Cost Effectiveness Criteria, then there is no cost to the CLIENT AGENCY and no further obligation by the CLIENT AGENCY.

# ATTACHMENT C

## Scope of Work Energy/Utility Conservation Projects Monitoring Services

### Statewide Energy Performance Contracting Program Master Energy Services Agreement No. 2015-181

If requested DES will provide the following monitoring services for each specific project for the CLIENT AGENCY.

1. Monitor actual energy use and dollar costs, compare with the ESCO's annual Measurement and Verification (M&V) report and any ESCO guarantee, resolve differences, if needed, and approve any vouchers for payment.
2. Monitor facility operations including any changes in operating hours, changes in square footage, additional energy consuming equipment and negotiate changes in baseline energy use which may impact energy savings.
3. Provide annual letter report describing the ESCO's performance, equipment performance and operation, energy savings and additional opportunities, if any, to reduce energy costs.



STATE OF WASHINGTON  
DEPARTMENT OF COMMERCE

1011 Plum Street SE • PO Box 42525 • Olympia, Washington 98504-2525 • (360) 725-4000

[www.commerce.wa.gov](http://www.commerce.wa.gov)

## 2015-17 Energy Efficiency and Solar Grant Awards – Round Two

### Higher Education Energy Efficiency Awards

<b>Applicant</b>	<b>Award</b>	<b>Location</b>
Centralia College	\$114,000	Centralia
Green River College	\$150,000	Auburn
Seattle Central College	\$315,000	Seattle
Wenatchee Valley College	\$146,500	Wenatchee
<b>Total</b>	<b>\$725,500</b>	

### Local Government Energy Efficiency Awards

<b>Applicant</b>	<b>Award</b>	<b>Location</b>
City of Bellevue	\$23,526	Bellevue
City of Benton City	\$69,852	Benton City
City of Federal Way	\$350,000	Federal Way
City of Fife	\$128,706	Fife
City of Issaquah Public Works	\$143,841	Issaquah
City of Kettle Falls	\$139,276	Kettle Falls
City of Redmond	\$350,000	Redmond
City of Seattle	\$350,000	Seattle, WA
City of Yakima	\$350,000	Yakima
Clark Public Utilities	\$350,000	Vancouver
Columbia Basin Hospital	\$350,000	Ephrata
Covington Water District	\$79,447	Kent
Island Hospital	\$350,000	Anacortes
Kitsap County	\$350,000	Port Orchard
Klickitat Valley Health	\$159,000	Goldendale
Lake Stevens Sewer District	\$45,000	Lake Stevens
Pierce County Facilities Management	\$131,500	Tacoma
Public Utility District No.1 Chelan County	\$134,814	Wenatchee
Snohomish County	\$217,547	Everett
<b>Total</b>	<b>\$4,072,509</b>	

## State Agency Energy Efficiency Awards

<b>Applicant</b>	<b>Award</b>	<b>Location</b>
Criminal Justice Training Commission	\$175,138	Burien
Washington School for the Deaf	\$240,000	Vancouver
WA State Department of Ecology	\$195,211	Lacey
<b>Total</b>	<b>\$610,349</b>	

## K-12 Public School Districts Energy Efficiency Awards

<b>Applicant</b>	<b>Award</b>	<b>Location</b>
Carbonado Historical School District #19	\$114,855	Carbonado
Darrington School District	\$116,000	Darrington
Federal Way Public Schools	\$350,000	Federal Way
Highline Public Schools	\$350,000	Burien
La Center School District	\$185,000	La Center
Monroe School District	\$150,309	Monroe
Puyallup School District	\$101,000	Puyallup
South Kitsap School District	\$324,524	Port Orchard
Stevenson Carson School District	\$350,000	Stevenson
Tacoma School District	\$350,000	Tacoma
Toppenish School District	\$290,341	Toppenish
Vancouver Public Schools	\$284,125	Vancouver
<b>Total</b>	<b>\$2,966,154</b>	

## Solar Awards

<b>Applicant</b>	<b>Award</b>	<b>Location</b>
City of Benton City	\$349,268	Benton City
City of Kettle Falls	\$422,863	Kettle Falls
City of Snoqualmie	\$120,705	Snoqualmie
Harborview Hospital	\$47,015	Seattle
Port of Seattle	\$317,000	Seattle
Port of Skagit	\$178,000	Burlington
Seattle Central College	\$204,240	Seattle
Seattle School District	\$500,000	Seattle
Tenino School District	\$176,000	Tenino
The Evergreen State College	\$73,279	Olympia
Toppenish School District	\$374,520	Toppenish
Town of St. John	\$413,414	St. John
WA State Department of Ecology	\$84,436	Lacey
WA State Employment Security Department	\$188,975	Olympia
<b>Total</b>	<b>\$3,449,715</b>	

**Total Amount Awarded all Categories** **\$11,824,227**