AMERESCO

City of Olympia
Armory Creative Campus
Energy Services Proposal

Prepared for

City of Olympia, Washington

May 7, 2025

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City of Olympia, Washington

May 7th, 2025

Submittal

Energy Services Proposal

DES/L&I Project 2025-771 A(1)

Ameresco Project 1008164

Presented by

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AMERESCO

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Executive Summary

Summary & Project Services

Ameresco is pleased to present this proposal for the installation of a rooftop solar array and battery energy storage system (BESS) at the Olympia Armory.

This Proposal follows the outline contained in Section II of the Main Energy Services Agreement (MESA). It presents the contractual terms under which Ameresco, Olympia Armory, 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 year. Although the Olympia Armory will operate and maintain the facility improvements, Ameresco will provide M&V services during the first year to help ensure the predicted savings are achieved. Ongoing M&V services are offered for an additional cost at the Owner's (the Olympia Armory's) request.

Project Description

This project greatly improves the Olympia Armory's grid and operational resilience through the installation of a 150.5 kW DC/120 kW AC rooftop solar array paired with a 125 kW / 516 kWh battery energy storage system (BESS). The solar array will provide a substantial portion of the facility's energy needs, reducing reliance on grid electricity and lowering operational energy costs. The integrated BESS will store excess solar energy generated during peak sunlight hours and release it when needed, optimizing energy use and reducing demand charges.

Equipment To Be Installed

This project includes the installation of the equipment below, or equivalent, at the Olympia Armory as follows:

Table 1. Proposed Equipment Summary

Equipment	Quantity	Manufacturer	Model Number
Photovoltaic (PV) Modules	284	Silfab Solar	SIL-530 XM+
Battery	1	ELM	CMG2-125
Inverters	2	Chint	CPS SCA60KTL-DO/480
Transformer (TFMR)	1	TBD	TBD Isolation Transformer
Racking	TBD	Panel Claw	Claw10 FR Plus

Additional equipment may be required for system operation. Full project installation specifications can be found in the design drawings to be completed.

Project Contact List

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E-mail Address:	Sarah.Thomasson@des.wa.gov
Phone Number:	(360) 480-3419
Utility Contact:	Puget Sound Energy
E-Mail Address:	customercare@pse.com
Phone Number:	1-800-225-5773

Project Benefits

Financial Benefits

Project costs, estimated utility incentives, and savings related to this project are detailed in subsequent sections. The guaranteed maximum project cost is $1,655,292. Including sales tax and DES Energy Program project management fees, the total project cost is $1,875,810.

The estimated awarded grant funding for the project is $1,542,000.

Construction Cost Savings

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

Energy Cost Savings

The project includes the combination of two energy savings measures as one, ARM-G5 and ANX-G4 Solar + BESS, that will reduce energy consumption by an estimated 149,384 kWh in annual energy savings totaling approximately $19,082/yr based on the current average local utility rate of $0.12774/kWh and $7.65/kW. The rate is based on PSE Schedule 25 Electrical Rate as of 5/1/25. It is anticipated that the Armory's electrical rate will change from Schedule 24 to 25 with the anticipated facility improvements.

Ameresco guarantees 83% of the above energy savings related to system generation (kWh) totaling an annual savings of 124,006 kWh relating to $15,841. Savings related to demand (kW) are not guaranteed for this project based on the complexity of demand fluctuations and rate changes.

Local utility rates have increased since the Investment Grade Audit Puget Sound Energy (PSE) has asked for a 9.3% increase in 2026. It is anticipated that local utility rates will increase in across the life of the system. This would result in the annual expected savings increasing to $17,314 including the anticipated 2026 increases. However, due to the requirement to guarantee savings based on current rates and uncertainty of further future rate changes, these increased savings cannot be guaranteed or accurately projected past 2025.

Operations and Maintenance Related Benefits

This project does not offer measurable operations and maintenance (O&M) savings. Although the on-site generation and battery storage will supply backup power during outages, they do not deliver quantifiable or guaranteed O&M benefits within the scope of this work.

Environmental Benefits

This project will reduce annual energy usage in existing systems by 90 metric tons of CO_2 equivalent, per the EPA Greenhouse Gas Equivalencies Calculator. This is equivalent to:

Greenhouse Gas Emissions From

- 21 gasoline powered passenger vehicles driven for one year
- 228,823 miles driven by an average gasoline powered passenger vehicle

CO2 Emissions From

- 10,111 gallons of gasoline
- 14.6 homes' energy use for one year
- 25.6 homes' electricity for one year
- 6,735,629 number of smartphones charged

Guarantees

Ameresco guarantees that the project cost, related specifically to energy savings and the project scope, will not exceed the maximum price of $1,655,292(project cost before sales tax and DES Energy Program project management fee).

Ameresco guarantees that the implementation of energy efficiency measures will generate a minimum of 124,006 kWh annually. Based on a current average local utility rate (PSE Rate Schedule 25 effective 5/1/25) of $0.12774/kWh, this is equal to $15,841

Conclusion

This project represents an excellent opportunity for the Olympia Armory to improve grid resiliency and mitigate operational disruptions. The project provides roughly $1.5M in facility improvements and over 124,000 kWh annually in net energy savings. Ameresco looks forward to working with the Olympia Armory, DES Energy Program, Department of Commerce, and Puget Sound Energy in making this project a success.

Facility Description

The buildings below will be affected by the outlined scope of work. Please reference the IGA Report for detailed building and systems descriptions.

Table 2. Facilities Affected

Building No.	Description	Sq. Ft.
Armory	515 Eastside St SE, Olympia, WA 98501	41,447
Annex	515 Eastside St SE, Olympia, WA 98501	9,700
Site	515 Eastside St SE, Olympia, WA 98501	N/A
Total		51,147

Energy Conservation Measures (ECMs) to be Implemented

This section outlines the scope of work included in this proposal. Details on the Measurement & Verification protocol and guarantees can be found in subsequent section and in **Appendix B: M&V Plan**

ARM-G5 & ANX-G4 Solar Photovoltaic & Battery System

General Description

Design, procure, and install a fixed tilt rooftop solar array with battery energy storage system (BESS) interconnected behind the meter at the Armory including the following. The solar array will have a total system capacity at standard test conditions of 150.5 kW-DC/120.0 kW-AC. The BESS will have a capacity of 125 kW/516 kWh.

- Complete electric and structural engineering in relation to the solar arrays and BESS.
- Required permitting with the City of Olympia.
- Applying for and completing the requirements of the interconnection agreement and net metering application with Puget Sound Energy.
- Furnish and install solar panels with at least a 25-year performance warranty.
- Furnish and install (2) 60kW 480V three-phase inverters with 10-year warranty.
- Furnish and install fixed tilt rooftop racking.

- Furnish and install a 125kW/516kWh BESS with 5-year warranty and isolation transformer.
- Install a revenue grade meter and weather station, including a class B pyranometer installed in the plane of the array to monitor system performance.
- The system interconnection to the building's main electrical distribution will be behind the meter at the 480VAC level.
- If required, conduit may be run exposed inside the Armory and Annex buildings and will be unpainted.
- Where required, conduit will run underground from the Armory to the Annex to connect the systems.
- Provide solar performance monitoring at the inverter level via a Data Acquisition System.
    - The monitoring data will be available to view on a dashboard visible online and will include 15-minute interval monitoring.
    - Data will include the revenue-grade meter and weather station reading, inverter kWh production, and inverter status/faults.
    - An ethernet connection will be provided in the electrical room to be run to the BESS and inverters.
- A facility power shutdown will be required to interconnect the system with the facility. Ameresco will work with Armory staff to determine the preferred time for the shutdown.
- The system will be commissioned following installation.
- The landscaping that is disturbed by construction will be repaired to match conditions before construction.
- Work will be performed during normal hours.
- Supporting technical and construction documentation in support of the grant reporting requirements will be provided to the Olympia Armory.

Baseline Condition

The Olympia Armory currently sources its electric power from Puget Sound Energy. Currently the Olympia Armory has a 3-Phase 208 Voltage service. As part of a separate project, the electrical service will be upgraded to a 3-Phase 480 Voltage service to accommodate future Armory electrical needs. There is currently no existing solar or battery storage at the facility.

Proposed Condition

It is recommended that a rooftop solar array and BESS be installed to optimize energy cost savings and provide grid resiliency. By generating renewable energy on-site, the Armory will reduce its consumption of grid power, leading to long-term cost savings. Additionally, the BESS will enhance energy resiliency, provide backup power during grid disruptions and helping ensure that the Armory maintains uninterrupted operations. This energy storage system will also allow for peak shaving, reducing demand charges by supplying stored power during high-usage periods.

Installation shall include:

- Coordination with the Utility including interconnection applications
- Shutdown and outage coordination with the site
- Engineering design & permitting
- Installation of all equipment as outlined in the provided drawings
- Commissioning
- On-site training
- Community engagement

Benefits Summary

The table below summarizes the costs and benefits of the proposed energy-conservation measure. Projected savings are based on the system's expected annual electricity generation and reflect the resulting reduction in kilowatt-hour (kWh) consumption. Ameresco guarantees 83 % of the system's projected annual energy savings (kWh), as detailed in the table below, but offers no guarantee of peak-demand (kW) reductions.

Table 3. ARM-G5 & ANX-G4 Benefits Summary

	Calculated Annual Savings			
ECM #	**Estimated Electric (kwh)**	Estimated Electric (kW)	**Utility ($)**	**Project Cost ($)**
ARM-G5 & ANX-G4: Solar PV Array & BESS	124,006	-	$15,841	$1,875,810

Key Performance Indicators

Table 4. ARM-G5 & ANX-G4 Key Performance Indicators

Item	Baseline Condition	Proposed Condition
Total System kWh production	100% Utility Provided Power	Total System kWh DC Production (124,006 kWh/year) Monthly System Production – See Figure 6 and Appendix E for monthly data. Capacity Factor – 11.8% BESS Power Rating – 125 kw
Actual POA insolation	None	Irradiance sensors within the array will record insolation.

Operations & Maintenance

The implementation of solar and battery energy storage systems will introduce new O&M responsibilities. This will include routine inspections, cleaning, and performance monitoring of the solar panels, along with regular maintenance of the BESS to ensure safety and efficiency. These activities may require additional training for staff or external sourcing. It is recommended that the Olympia Armory own the preventative maintenance activities based on their industry partnerships, management availability, and technician expertise.

Project Benefits

Utility Cost Savings

Overall, the IGA outlines Energy Conservation Measures (ECMs) that represent over $1.5M in improvements to the Olympia Armory. Upon implementation, the proposed project will provide 124,006kWh in annual energy savings totaling approximately $15,841/yr based on the current average local utility rate of $0.12774/kWh. The rate is based on PSE Schedule 25 Electrical Rate as of 5/1/25. It is anticipated that the Armory's electrical rate will change from Schedule 24 to 25 with the anticipated facility improvements.

It is anticipated that local utility rates will increase in 2026 and across the life of the system. An increase in utility rates would also increase the amount of annual cost savings. However, due to the requirement to guarantee savings based on current rates and uncertainty of further future rate changes, these increased savings cannot be guaranteed or accurately projected past the current rates.

Operations and Maintenance Savings

This project does not offer measurable operations and maintenance (O&M) savings. Although the on-site generation and battery storage will supply backup power during outages, they do not deliver quantifiable or guaranteed O&M benefits within the scope of this work.

Exclusions

Maximum project costs DO NOT include the following:

a) Utility services and electrical system upgrades, unless specifically noted in the scope of work, are not part of this scope and shall be provided in a separate project.
b) Roofing membrane replacement and insulation upgrades are not part of this scope of work.
c) Unless specifically noted in the Scope of Services, paint / patch is excluded. If noted in the Scope of Services, only the affected areas will be addressed (not the entire area / wall). Paint will match existing adjacent paint as closely as possible, but an exact match cannot be guaranteed.
d) Piping / conduit / wire mold may be run exposed in occupied spaces (as applicable).
e) Unless specifically noted in the Scope of Services, conduit / wire mold is unpainted.
f) Unless specifically noted in the Scope of Services, no piping covers have been included.
g) Temporary power will not be provided during required shutdowns. Shutdowns will be coordinated with site staff at least 2 weeks in advance. The timing of shutdowns will be coordinated to minimize disruptions and can occur during off-hours if needed by the

client.

h) No security system provisions are included.

i) Code deficiencies and existing issues within or associated with the facility have been identified as part of the Investment Grade Audit. The identified deficiencies will be addressed in a separate scope of work and are not included in this project unless specifically noted.

j) Asbestos abatement, mold mitigation, and hazmat mitigation are not included in the scope of work. This scope has been investigated, and hazardous material mitigation will be addressed as a separate project scope of work. Ownership of hazardous materials remains the property of the Olympia Armory through disposal and does not become the property of Ameresco.

ESCO Services

Ameresco will provide the following services:

Energy Audit

The energy audit is complete, and details and conclusions are available in the IGA report dated April 8, 2025.

Design Services

Provide a detailed engineering design as needed to obtain Owner review and approval of the proposed system and to obtain competitive bids and necessary permits to construct. Provide construction support services, start-up, and testing. Provide as-built drawings and relevant O&M manuals.

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 the actual costs of the work with the Owner.
b) Ameresco will abide by the applicable Washington State Department of Labor & Industries prevailing wage for the county of the work.
c) At the conclusion of the last phase of the project and when the ESCO has completed the installation and commissioning of the Equipment, including start-up and operation verification and training in accordance with the Proposal, the ESCO will provide to Owner a "Notice of Commencement of Energy Savings" (NCES) and submit a “Notice of Substantial Completion,” as defined in the General Conditions Section 6.09.

Construction Project Management

Provide construction project management services required to manage Ameresco’s labor force or its subcontractors to coordinate, purchase, and install equipment as applicable in the construction contract. These include but are not limited to contract administration, preparation of meeting minutes, schedule creation, submittal processing, purchasing, invoicing, as-built drawings, and close-out documentation. The Owner is expected to coordinate day-to-day communications with tenants and any scheduling of tenant relocations in and around occupied areas. This is not supervision as provided by the site superintendent.

Site Superintendent

Provide site superintendent services as necessary to facilitate and coordinate on-site construction activities. Site supervision includes, but is not limited to, all activities executed by an employee of the ESCO in the active on-site supervision of its own labor force and its subcontractors.

Operation Training

The ESCO will provide training for the building staff during construction.

Measurement & Verification

The ESCO will provide Measurement and Verification to help ensure the guaranteed performance is achieved throughout the first year of the agreement. Specific tasks will include:

a. **Year One:** Post installation Measurement and Verification (M&V) will be performed based on the International Performance Measurement and Verification Protocol (IPMVP). The following Measurement and Verification table identifies the method that will be followed to complete the measurement and verification for each ECM.

Table 5. ARM-G5 & ANX-G4 M&V Plan

ECM	ARM-G5 & ANX-G4 – Solar PV Array
M&V Plan Description	Option B (all relevant parameter measurement) will be used to quantify the energy savings associated with the Solar Photovoltaic ECM.
Baseline Performance Parameters	The Solar PV system has been modeled utilizing software to determine the expected production for the project location based on system design characteristics and historical average solar availability.
Post Installation Performance Parameters	The new Solar PV system will be monitored during start-up / commissioning to confirm that the system is operating properly, and that the overall system is operating as intended. The post installation performance parameters include the following parameters: • Total system kWh production • Site Insolation solar availability • System availability These parameters will be monitored using 15-minute interval data from the installed Data Acquisition System after installation is completed to verify the installed system is producing electricity consistent with the modeled expected output values. If actual production exceeds the guaranteed production, no adjustments will be made. If actual production is less than the guaranteed production, adjustments may be made to account for less than expected insolation, system outages, or other factors that are not within the control of Ameresco. A regression model will be built using actual performance data to show the production achieved for a given unit of solar availability (insolation). This regression will be used to determine the impact of any equipment downtime, and it will also be used to determine any potential adjustments for insolation lower than the monthly average for the site.
Performance Assurance Activities	Confirm that the system produces the expected annual kWh output as adjusted as described above. Analysis will be performed using values extracted from the Data Acquisition System and reported annually during the M&V term.

ECM	ARM-G5 & ANX-G4 – BESS
M&V Plan Description	Option B (all relevant parameter measurement) will be used to quantify the energy savings associated with the Solar Photovoltaic ECM.
Baseline Performance Parameters	The battery system has been modeled utilizing software to determine the expected system output to meet the project requirements.
Post Installation Performance Parameters	The new BESS system will be monitored during start-up / commissioning to confirm that the system is operating properly, and that the overall system is operating as intended. The post installation performance parameters include the following parameters: • Design capacity of the BESS system • System responsiveness to charge/discharge commands These parameters will be monitored using 15 minute interval data from the installed Data Acquisition System after installation is completed to verify the installed BESS system is charging and discharging according to the intended commands. The metered output data will be utilized to ensure that the actual capacity of the system is within 5% of the designed capacity.
Performance Assurance Activities	Confirm that the system produces the expected kW and kWh output consistent with designed capacity. Analysis will be performed using values extracted from the DAS and reported annually during the M&V term.

b. The ESCO will attend one annual meeting upon request to review the Measurement & Verification results and reconcile the energy savings.
c. The ESCO will complete monthly analysis during the M&V period and issue a single report provided within 60 days of the one year anniversary of the Notice of Commencement of Energy Savings.
d. Should adjustments be necessary for insolation or availability conditions, the following processes will occur:
    - A linear regression will be created between the solar insolation and kWh production of the system. If actual monthly insolation is lower than the expected monthly insolation for the given calendar month, the linear regression formula will be utilized to determine the amount of production lost due to lower insolation conditions.
    - If the site availability falls below 95% due to factors outside of Ameresco's control, an adjustment will be made to account for lost production for the downtime. The adjustment methodology will depend on the nature of the cause of the downtime, and this process will be documented as reported in the Measurement & Verification Report.
d. Recommendations for additional M&V will be provided at the end of the first M&V period based on system performance. It is not anticipated that additional M&V should be required beyond the first year.

The outlined M&V plan is based on the below estimated monthly kWh produced by the array and associated irradiance values. These values are outlined in the tables below. Cost savings are based current average local utility rate of $0.12774/kWh. The rate is based on PSE Schedule 25 Electrical Rate as of 5/1/25. It is anticipated that the Armory's electrical rate will change from Schedule 24 to 25 with the anticipated facility improvements.

Table 6. Olympia Armory Solar and BESS Savings

Olympia Armory Solar and BESS Savings									
	Site Baseline		Expected Solar and BESS Performance		Expected Dollar Savings			Guaranteed Savings	
Month	kWh Consumed	kW Demand	kWh Produced	kW Saved	kWh Saved ($)	kW Saved ($)	Total Saved	kWh Produced	Dollar Savings
January	7,974	NA	3,334	-	$ 426	$ -	$ 426	2,767	$ 353
February	8,039	NA	5,347	-	$ 683	$ -	$ 683	4,438	$ 567
March	5,789	NA	11,369	-	$ 1,452	$ -	$ 1,452	9,438	$ 1,206
April	8,612	NA	15,706	-	$ 2,006	$ -	$ 2,006	13,037	$ 1,665
May	4,361	NA	19,206	-	$ 2,453	$ -	$ 2,453	15,943	$ 2,037
June	3,481	NA	20,674	-	$ 2,641	$ -	$ 2,641	17,162	$ 2,192
July	3,393	NA	22,911	-	$ 2,927	$ -	$ 2,927	19,018	$ 2,429
August	4,201	NA	19,810	-	$ 2,531	$ -	$ 2,531	16,444	$ 2,101
September	3,299	NA	14,159	-	$ 1,809	$ -	$ 1,809	11,754	$ 1,501
October	4,175	NA	9,173	-	$ 1,172	$ -	$ 1,172	7,615	$ 973
November	4,700	NA	4,517	-	$ 577	$ -	$ 577	3,750	$ 479
December	5,241	NA	3,180	-	$ 406	$ -	$ 406	2,639	$ 337
Total	63,265	2,624	149,384	-	$ 19,082	$ -	$ 19,082	124,006	$ 15,841

Annual Production

	Description	Output	% Delta
Irradiance (kWh/m^2)	Annual Global Horizontal Irradiance	1,187.8	
	POA Irradiance	1,206.6	1.6%
	Shaded Irradiance	1,187.6	-1.6%
	Irradiance after Reflection	1,142.6	-3.8%
	Irradiance after Soiling	1,096.5	-4.0%
	Total Collector Irradiance	**1,096.5**	**0.0%**
Energy (kWh)	Nameplate	167,093.6	
	Output at Irradiance Levels	164,982.4	-1.3%
	Output at Cell Temperature Derate	160,879.6	-2.5%
	Output After Mismatch	154,490.8	-4.0%
	Optimal DC Output	154,021.4	-0.3%
	Constrained DC Output	153,969.2	0.0%
	Inverter Output	151,659.1	-1.5%
	Energy to Grid	**149,384.2**	**-1.5%**
Temperature Metrics			
	Avg. Operating Ambient Temp		13.1 °C
	Avg. Operating Cell Temp		21.4 °C
Simulation Metrics			
	Operating Hours		4635
	Solved Hours		4635

Warranty

The ESCO will warrant labor and materials for one year following Notice of Substantial Completion.

Notice of Substantial Completion will be issued at the end of the project, when conservation measures are completed, saving energy, and accepted by DES and the owner. Substantial completion will be confirmed with DES and Owner prior to issuance of the notice.

Notice of Commencement of Energy Savings will be submitted subsequent to project completion and will be effective the first day of the month following its submission. Its effective date marks the start of Year 1 of the performance period.

As the solar and battery energy storage system will become operational on the same day and will work as a single system, their warranty provided by Ameresco will have the same start and end dates.

Operations & Maintenance Procedures

Operations and maintenance procedures outside of the warranty are not included as part of this proposal. An operation and maintenance manual will be provided for the installed equipment.

O&M procedures will not be provided for existing equipment.

Ameresco will implement a training program that involves classroom and hands-on/field training. A one-day training session will include a review of the overall installation and performance characteristics of installed measures. Documentation will include review of O&M manuals, drawings, and equipment specification literature. Facilities personnel, and select building occupants, will receive comprehensive manuals for reference. The primary goal of Ameresco's training program will be to educate designated operations, maintenance, and building staff in the key areas that relate to the measures installed throughout the project. Following the classroom training session, a site tour will be scheduled to review the specific installation and operation of the equipment. This level of training will provide operations and maintenance staff with additional equipment details (including equipment cut sheets), familiarity with the equipment that is installed, manufacturer's recommended maintenance procedures, and all warranty information. Training can be recorded for future reference, if desired.

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 services, 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.

Hazardous Waste

Hazardous Material testing was provided during the Investment Grade Audit. Hazardous Material were identified and will be addressed as a separate scope of work. Abatement of hazardous materials has not been included in this project. See Exclusions for more details around hazardous waste scope.

Should the project require additional removal or disposal of any unidentified 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 the additional work. The cost of any additional hazardous material abatement and disposal is not included in this proposal. For additional information, please refer to Section 5.20 of the General Conditions

Site Safety Requirements

Ameresco and its subcontractors will develop site-specific safety plans once means and methods are determined after design implementation.

Project Costs

Maximum Project Cost

The ESCO guarantees that the Maximum Project Cost will not exceed **$1,655,292.** This includes the cost increases from tariffs implemented as of 4/15/2025. This cost does not include sales tax or DES Energy Program project management fees. With sales tax and DES Energy Program project management fees, the Total Project Cost is **$1,875,810.** The ESCO does not guarantee the value of sales tax or DES Energy Program project management fees.

NOTE: The proposed Total Project Cost is valid for 60 days from the date of this proposal. Beyond 60 days, Ameresco reserves the right to adjust pricing to reflect current labor and material cost.

Project Cost Table

Table 7: Project Cost Table

Project Cost Category	Project Cost
Engineering Audit	**$25,000**
Labor and Material Cost	**$1,109,637**
Engineering Design at 10% of Labor & Material	**$110,964**
Construction Management at 6% of Labor & Material	**$66,578**
Site Supervision	**$40,812**
Bonding at 1.3% of Labor & Material	**$18,291**
ESCO Overhead at 10% of Labor & Material	**$110,964**
ESCO Profit at 8% of Labor & Material	**$88,771**
1st Year of M&V - Ameresco	**$4,500**
Additional Years of M&V - Ameresco	**$-**
Subtotal-Construction Costs	**$1,575,516**
Construction Contingency at 5% of Construction Costs	**$78,776**
Apprenticeship Incentive	**$1,000**
Maximum Project Cost	**$1,655,292**
Sales Tax at 7.62% of Maximum Project Cost	**$162,219**
0 Years of M&V - DES	**$-**
DES Project Management Fees	**$58,300**
Total Project Price to Customer	**$1,875,810**
Estimated Utility Incentive	**$-**
Estimated Sales Tax Exemption	**$34,091**
Estimated IRA Direct Pay	**$299,719**
Estimated Grant Funding	**$1,542,000**
Estimated Project Net Cost	**$ 0**

Items Included in Maximum Project Cost

Maximum project costs include the following: (Refer to Section II. A. in the MESA for details)

a) Engineering audit, including the cost for preparation of this proposal, is a fixed fee.

b) The engineering design fee for mechanical, plumbing and general measures is calculated at 10% of labor and material. Lighting is not included in this project and therefore there is no engineering design fee for lighting. These are fixed fees.

c) The construction management service fee is calculated at 6% of labor and material. This is a fixed fee.

d) The site superintendent services will be invoiced based on actual hours per the Main Energy Services Agreement (MESA).

e) 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 the discharge of duties connected with the work; per Section B of the MESA and OFM guidelines.

(3) Cost of all equipment, materials, and supplies 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 or its subcontractors. 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) Demolition cost and cost of removal of all debris.

(9) Costs incurred due to an emergency affecting the safety of persons and property.

(10) Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by the Owner.

(11) 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.

(12) Cost of equipment startup, training, system verification, and balancing performed by the ESCO.

(13) Bonding, Liability Insurance, and Builder's Risk Insurance.

(14) Overhead and Profit. This includes the ESCO's remuneration for compensation of personnel, expenses, risks related to the project, and profit. Overhead is calculated at 10% of the labor and material, and profit is calculated at 8% of labor and material. These are fixed fees.

(15) Metering equipment costs for any permanent metering or monitoring equipment left on site.

(16) The ESCO shall provide a Schedule of Values at the end of construction bidding and prior to the first application of payment. The schedule of values will include all costs related to the installation of the ESCO equipment except fixed fee items; refer to General Conditions section 6.02 for details.

(17) The Total Project Cost proposed is valid for 60 days from the date of this proposal. Beyond 60 days, Ameresco reserves the right to adjust the pricing based on current labor and material costs.

Construction Contingency

A construction contingency of **$78,776** (not including sales tax) has been established for this project. The total project contingency, including sales tax, is **$86,496.** The contingency is for items, including tariff increases on project materials, 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 as approved by Owner. All unused construction contingency funds shall reduce the overall project cost to the Owner.

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 six (6) years, or for such longer period as may be required by law, after the final payment. Refer to General Conditions Section 10.08 for details.

Reconciliation of Labor and 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 and material costs exceed the estimated labor and material costs (plus contingency), the additional expense will be borne by the ESCO without affecting the Owner's payment.

b) When actual labor and material costs are less than the estimated labor and material cost (plus contingency), the remaining funds will be retained by the Owner.

For work self-performed by Ameresco, the following labor rates will apply.

	2020	2021	2022	2023	2024	2025
Project Manager	$ 151	$ 157	$ 162	$ 168	$ 174	$ 180
Construction Manager	$ 140	$ 145	$ 150	$ 155	$ 160	$ 166
Project Developer/Project Engineer	$ 140	$ 145	$ 150	$ 155	$ 160	$ 166
Site Supervisor	$ 145	$ 150	$ 155	$ 161	$ 166	$ 172
Commissioning Agent	$ 137	$ 142	$ 147	$ 152	$ 158	$ 163
Other: Audit Support Tech, M&V Specialist, Contract Analyst	$ 116	$ 121	$ 125	$ 129	$ 134	$ 138
Administrative Assistant	$ 76	$ 78	$ 81	$ 84	$ 87	$ 90

Project Diverse Business Participation Goals

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:

State Certified Categories	Original Contract Percentages	Percentage for construction (This Project)	Percentage for services (This Project)
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%

The below outlined efforts will be made to satisfy the DBE goals for this project.

- Consult with the following to develop a DBE Recruitment Plan
  - Minority Contractor Success Program Lead
  - Ameresco Western Region DE&I Working Group

Based on the level of design completed during the IGA, Ameresco is not able to obtain firm bids from installing contractors. We are not able at this time to report to what extent the DBE goals will be met for this project.

Minimum Levels of Apprenticeship

The ESCO shall comply with the requirements from the 2023 General Conditions for Washington State Energy Savings Performance Contracting; Section 10.16 Minimum Levels of Apprenticeship Participation. For contracts greater than or equal to $1 million in construction cost, ESCOs meeting or exceeding the 15% apprenticeship utilization requirement will receive a $1,000 incentive (plus sales tax) which is included in the Guaranteed Maximum Project Cost. The ESCO who fails to meet the utilization requirements and fails to demonstrate a Good Faith Effort is subject to penalties, not to exceed five percent (5%) of the Total Contract Sum.

The Esco shall provide an Apprentice Utilization Plan demonstrating how and when the ESCO intends to meet the requirements prior to submitting the first construction invoice for construction labor.

Client Agency Funding Requirements

The Client has received funding from the WA Department of Commerce Community Decarbonization Grant for a total of $1,542,000.

The Olympia Armory has notified DES and Ameresco, Inc. of the use of the Washington State Department of Commerce *Community Decarbonization RFA 2024* funding for this project. The Olympia Armory, DES, Ameresco, and its subcontractors agree to comply with the funding requirements outlined in Commerce Contract Number 24-92201-108 for Olympia Armory Solar Plus Battery Energy Storage System (S+BESS). This will be consistent with the MESA and ESPC General Conditions requirements. See Appendix 2 for the full contract language.

This project would also qualify for the solar tax exemption for Washington State sales tax which allows for a 50% refund of the state sales tax associated with the solar project. To qualify, LNI must certify that the project includes procurement from diverse businesses, from entities with a history of state and federal wage compliance, apprenticeship utilization, and a preference for local workers. The estimated sales tax exemption has been shown as an incentive and included in the Project Net Cost.

The Investment Tax Credit (ITC) can also be used to fund the project for costs above the grant value. A 30% ITC is currently available for eligible project costs. The credit cannot exceed the total paid by the customer. With the grant funding, the credit will be reduced to about 10% of the project cost, resulting in a fully funded project. Due to the system size under 1MW, additional prevailing wage and apprenticeship requirements will not be required to qualify for the ITC.

Additional Recommendations

Ameresco will work with the Armory to program the BESS to best meet its needs. We recommend that the system be programmed in the following way:

- When the solar array produces more energy than the facility requires:
  - Excess energy will first be absorbed by the BESS
  - When the BESS reaches maximum capacity, excess energy will be exported to the grid.
- When the solar array produces less energy than the facility requires:
  - The BESS will discharge to no less than 20% of its kWh capacity
  - The BESS will monitor the load of the facility and will aim to reduce peak demands based on historic monthly peaks.
- When a utility outage occurs, the BESS will discharge power to supply energy to the building.
  - The BESS and solar array will continue to supply power to the building until the BESS reaches its minimum allowable state of charge.

Standards of Comfort and Service

Electrical Service

Most of the construction of the solar and BESS project can occur without disrupting daily operations at the Olympia Armory. However, in order to interconnect the system, the facilities power will need to be disconnected, and the facility will need to remain offline for several hours. Ameresco will provide at least 2 weeks' notice to the facility for when the shutdown will occur and work with the facility to determine the best time for the shutdown to minimize disruptions to the facility. During the period of service interruption, the ESCO shall work expeditiously to complete the installation and conduct all necessary safety and functionality checks. Upon successful completion of the installation and verification of system integrity, the ESCO shall restore the electrical service promptly. The ESCO shall ensure that all measures taken align with applicable safety standards and best practices, aiming to minimize downtime and ensure the restored service is fully operational and reliable.

Baseline Energy Consumption

An analysis of historical utility data from the Olympia Armory (Armory) site is provided herein. A two-and-a-half (2.5) year period was analyzed from April 2022 to August 2024. Detailed energy use and cost data are shown below. Note that there is no demand rate for Schedule 24E-C.

With the proposed improvements and proposed increase of occupancy and use of the facility it is likely that a rate change will be required for the Olympia Armory. The rate change will likely move from Schedule 24E-C to Schedule 25E-C for customers with demand over 50kw but less than 350kw. This rate change will include demand charges on that schedule.

Campus Energy Use Across Audit Scope

The Table below shows the energy consumption of Armory site, broken down by building and by fuel. The Main Building's energy consumption is higher than that of the Annex, both overall and proportionally per square foot. The bulk of the main building's energy supply comes from gas, so that the overall gas consumption of the site is five times its electric consumption, despite the fact that the annex has no gas supply at all.

Table 8: Overview of Energy Use by Building

Facility	Area (ft^2)	Annual Electrical Usage		Annual Gas Usage		Electric EUI	Nat. Gas EUI	Overall EUI
		kWh	kBtu	Therms	kBtu	kBtu/ft^2	kBtu/ft^2	kBtu/ft^2
Main Building	41,447	61,049	208,361	10,623	1,062,298	5	26	30.7
Annex	9,700	2,217	7,567	0	0	1	0	0.8

Utility Rates

The utility rates in Table 9 were used in energy cost savings calculations. Demand savings were excluded at the request of DES. With the proposed improvements and the expected increase in occupancy, it is likely that the Olympia Armory site will require a new utility rate schedule. Specifically, the rate may change from Schedule 24E-C to Schedule 25E-C, which applies to customers with demand exceeding 50 kW but below 350 kW. This transition would include demand charges under the new schedule.

Table 9: Utility Rate Data

Table 10. Puget Sound Anticipated Energy Utility Rates for the Olympia Armory

	Utility Item Description	Oct-Mar		Apr-Sept		Average	Usage Rate	*Indicate when updated/ effective time period.*
Electricity	Rate 25E-C Basic Charge	$53.95		$53.95		$ 53.95		Effective 1/1/2025
	Total Demand Charge	First 50 KW	Over 50 KW	First 50 KW	Over 50 KW			
		2.62	12.74	2.62	9.37	$ 6.8375		
	Total Electricity Charge	First 20k kWh	Over 20k kWh	First 20k kWh	Over 20k kWh			
		$0.109431	$0.083414	$0.100485	$0.083414	$ 0.094186		
	Power Cost Adj Clause & Supp Rate	$0.010489	$0.010489	$0.010489	$0.010489	$0.010489		
	Elec Conservation Svc Rider	$0.005365	$0.005365	$0.005365	$0.005365	$0.005365		
	Federal Wind Power Credit	-	-	-	-	-		
	Renewable Energy Credit	-	-	-	-	-		
	Total per kWh	$0.125285	$0.099268	$0.116339	$0.099268	$0.11004		
Natural Gas	Rate 31G-C Basic Charge						$38.89/mo	Effective 11/1/2024
	Rate 31G-C Delivery Charge						$0.80743	
	Gas Cons. Program Charge						$0.03656	
	State Carbon Reduction Credit						$(75.78)/mo	
	Gas Cost						$0.48808	
	Total Per Therm						$1.33207	

Method of Calculating Energy Savings & Energy Cost Savings

Energy Audit

The energy savings calculations were included in the IGA Report. These savings calculations have been reviewed and accepted by the DES Energy Program project management, the Owner and the ESCO. The Energy Audit results are included in the IGA dated 4/8/25.

Method of Calculation of Savings

The solar PV systems for the Armory and Annex buildings were designed using HelioScope software, which considers factors such as ultraviolet (UV) intensity, shading from nearby trees and structures, and the performance specifications of the panels. This comprehensive approach ensures optimal energy generation from the installed systems. After considering the design parameters and adhering to utility regulations, an annual energy generation figure was calculated. This figure was then used to estimate the overall annual energy savings.

The HelioScope report estimates a total production of 149.4 mWh using a safety factor of 0.83 results is an electrical production of 124,006 kWh annually.

Utility savings were calculated using the average rate of PSE Schedule 25E-C of $0.11004/kWh. The current average electricity consumption rate for PSE Schedule 25 is $0.12774/kWh as of 5/1/25.

Methodological Exclusions

The Department of Enterprise Services (DES) does not currently allow demand savings to be included in energy-cost-savings, therefore they have been excluded from the Energy Cost Savings analysis.

Audit Cost Effectiveness Criteria

The Cost Effectiveness Criteria from the IGA Proposal are as follows:

It is understood that this project is one phase of a multi phased overall project with the cost effectiveness criteria defined to include measures that support the facilities change of use to open, be accessible and safe to the community/staff and benefit the building to receive occupancy from the authority having jurisdiction (AHJ).

- *If Ameresco is NOT able to develop a project that meets the above cost effectiveness criteria and Olympia Armory chooses not to proceed with a construction contract, the associated audit fee will be waived.*
- *If Ameresco develops a project that meets the cost effectiveness criteria, Olympia Armory is responsible for the full amount of the audit; the audit fee can either be rolled into the construction contract or be paid in full by Olympia Armory.*

The proposed project satisfies the cost-effectiveness criteria outlined above. Its measures support the facility's change of use by ensuring it can open safely, remain accessible to staff

and the community, and obtain occupancy approval from the authority having jurisdiction (AHJ).

Financing

The Owner will provide project financing and has secured a Washington State Department of Commerce grant for the Olympia Armory Solar PV and Battery Storage initiative. The Owner is responsible for coordinating and managing all aspects of this funding.

Guarantees

Ameresco guarantees that the project cost, related specifically to energy savings and the project scope, will not exceed the maximum price of **$1,655,292** (project cost before sales tax and DES Energy Program project management fee).

Ameresco guarantees that the energy savings will be not less than **124,006** kWh annually during the performance period.

Guarantee Verification

The ESCO, Owner, and DES agree upon the following terms regarding guarantee verification:

1. The Owner, DES, and the ESCO agree that the energy savings exist if the ESCO documents that the achieved savings meet or exceed the guaranteed energy savings utilizing the processes outlined in Appendix B. Detailed calculation methodology is outlined in the IGA Report.

2. The Owner and the ESCO agree that should the ESCO installed equipment not perform as outlined above, the ESCO shall pay the equivalent value of the guaranteed level of the calculated energy savings 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; refer Project Contact List on page 3 for contact information.

3. The ESCO shall promptly repair the equipment upon notification to maintain compliance of the energy savings guarantee.

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.

This performance level is guaranteed for 1 year following the notice of commencement of savings (defined as Year 1), or for the duration of the measurement and verification services, whichever is shorter. Based on this performance, electrical savings will not be less than **124,006** kWh per year. This corresponds with 83% of the estimated energy savings for the energy saving measures, ARM-G5 & ANX -G4.

In the event that the guaranteed performance in Year 1 is less than the guaranteed minimum, the ESCO shall pay the Owner in accordance with the above terms.

ESCO Compensation

Payments

1. Owner agrees to make progress payments based on construction progress and one subsequent payment for retainage. Payments are to be made within 30 days of receipt of an approved invoice from the DES Project Manager.
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.

Terms of Agreement

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 savings achieved during the Interim Period will be fully credited to the Customer.

The term of this the Energy Savings Guarantee shall be 1 year beginning with the first day of the month following the Notice of Commencement of Energy Savings (NCES).

Termination Value

Upon notice, the Owner may at any time terminate this Agreement. The Owner will be responsible for any costs resulting from work within the scope of the contract.

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

Project Schedule

The ESCO will achieve substantial completion of the project by June 30th, 2026. A draft schedule outline is as follows, subject to change:

Task #	Task / Milestone	Start Date	Finish Date	Duration	Dependencies / Notes
1	Contract execution & kickoff meeting	07/07/2025	07/11/2025	5 days	Notice-to-Proceed issued
2	100% engineering & shop drawings	07/14/2025	08/29/2025	7 wks	
3	Permitting & utility-interconnect applications	07/21/2025	09/19/2025	8 wks	Runs parallel with Task 2
4	Long-lead equipment procurement	09/01/2025	01/31/2026	22 wks	Requires submittal approvals (Task 2)
5	Phase 1 Work (Separate Project) - Structural upgrades to roof framing	08/04/2025	10/31/2025	13 wks	
6	Phase 1 Work (Separate Project) - Roof-membrane replacement & punch	11/03/2025	01/31/2026	13 wks	Coordinate solar racking
7	Phase 1 Work (Separate Project) - Roof-membrane cure / warranty sign-off	02/01/2026	02/28/2026	4 wks	Prerequisite for solar racking
8	Phase 1 Work (Separate Project) - Utility service upgrade & new switchboard	11/01/2025	02/28/2026	17 wks	Coordinate outage window
9	Solar contractor mobilization & safety setup	03/02/2026	03/06/2026	1 wk	Tasks 6-8 complete
10	Roof racking / ballast & attachments	03/09/2026	03/27/2026	3 wks	Weather-sensitive; protect new roof
11	PV module installation	03/30/2026	04/17/2026	3 wks	Task 10 complete
12	DC string wiring & combiner boxes	04/06/2026	04/24/2026	3 wks	Overlaps Task 11
13	Inverter pads / switchgear placement	04/20/2026	05/08/2026	3 wks	Requires permanent utility service (Task 8)
14	Battery enclosure foundation & conduits	03/23/2026	04/10/2026	3 wks	Concurrent with Task 10
15	BESS delivery & installation	04/27/2026	05/29/2026	5 wks	Tasks 4 & 14 complete
16	System wiring & integration	05/04/2026	05/29/2026	4 wks	Parallel with final BESS install
17	Pre-functional tests (PV & BESS)	06/01/2026	06/05/2026	1 wk	
18	Utility & AHJ inspections / witness testing	06/08/2026	06/19/2026	2 wks	Utility PTO at completion
19	Owner training & O&M turnover	06/22/2026	06/26/2026	1 wk	Training manuals & as-builts delivered
20	Substantial completion / punch-list close	06/29/2026	06/30/2026	2 days	All deficiencies resolved

Extent of Subcontracting

The ESCO may subcontract the construction portion of this Contract to qualified firms as mutually agreed upon between the ESCO, owner, and DES. Construction subcontracts may be awarded competitively or may be directly sourced to a selected contractor should the owner, DES, and ESCO agree. Approval of subcontracting or selection of subcontractors may not be unreasonably withheld.

The ESCO will endeavor to satisfy the MWBE goals of Washington State as described in the subsection **Project Diverse Business Participation Goals** within the **ESCO Services** section.

State and Local Codes

Building Codes

Various codes applicable to the proposed project were identified. These codes are designed to ensure safety, proper integration, and compliance with both state and federal regulations. The applicable codes are outlined below.

Washington Energy Code (WEC)

The WSEC is based on the International Energy Conservation Code (IECC) and governs energy efficiency standards in buildings, including renewable energy installations. The proposed project includes the installation of solar PV array and BESS that will require compliance with the energy code to meet certain design and efficiency requirements.

National Electrical Code (NEC)

The 2020 National Electrical Code (NEC) is the current code applicable for solar and energy storage installations. The below sections are specifically related to the proposed project.

- Article 690: Covers the installation of solar photovoltaic (PV) systems, including wiring, grounding, overcurrent protection, and inverter requirements.
- Article 705: Governs the interconnection of solar PV systems with the utility grid, ensuring that safety protocols are in place when connecting the system to the public electrical infrastructure.
- Article 706: Addresses battery energy storage systems (BESS), including battery location, ventilation, protection from physical damage, and fire safety.
- Article 480: Governs storage batteries, outlining the installation, maintenance, and safety requirements for battery energy storage systems.
- Rapid Shutdown Requirements: Solar systems in WA must comply with NEC rapid shutdown rules to ensure that PV arrays can quickly shut down in the event of an emergency, protecting firefighters and maintenance personnel. Many of these requirements are specific to systems installed on buildings and will not be applicable to this project.

International Fire Code

The International Fire Code (IFC) outlines fire safety standards for solar PV systems and battery energy storage. These standards include requirements on battery location, ventilation, emergency accessibility and safety, as well as overall system safety and clearances.

Insurance and Bonding

1. The ESCO shall provide a payment and performance bond in accordance with the Main Energy Services Agreement. Builders Risk Insurance will also be provided by the ESCO.

2. For the purposes of this Agreement, the "Sum Amount of Bond" shall be **$18,291.** This amount does not include any construction contingencies.

3. The bond amount consists of the following:
   i. Labor & Material Bond Cost…… **$18,291**
   ii. Sales Tax…… **$1,793**
   iii. Bond Total…… **$20,084**

   (a) Certificates of General Liability Insurance will be provided prior to Contract Signing. The Owner (through the State of Washington) and 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.

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.

Exhibits & Tables

Financial Analysis

Table 11. Financial Summary of Proposed Project

Project Cost Category	Project Cost
Engineering Audit	**$25,000**
Labor and Material Cost	**$1,109,637**
Engineering Design at 10% of Labor & Material	**$110,964**
Construction Management at 6% of Labor & Material	**$66,578**
Site Supervision	**$40,812**
Bonding at 1.3% of Labor & Material	**$18,291**
ESCO Overhead at 10% of Labor & Material	**$110,964**
ESCO Profit at 8% of Labor & Material	**$88,771**
1st Year of M&V - Ameresco	**$4,500**
Additional Years of M&V - Ameresco	**$-**
Subtotal-Construction Costs	**$1,575,516**
Construction Contingency at 5% of Construction Costs	**$78,776**
Apprenticeship Incentive	**$1,000**
Maximum Project Cost	**$1,655,292**
Sales Tax at 7.62% of Maximum Project Cost	**$162,219**
0 Years of M&V - DES	**$-**
DES Project Management Fees	**$58,300**
Total Project Price to Customer	**$1,875,810**
Estimated Utility Incentive	**$-**
Estimated Sales Tax Exemption	**$34,091**
Estimated IRA Direct Pay	**$299,719**
Estimated Grant Funding	**$1,542,000**
Estimated Project Net Cost	**$ 0**

Selected Measures

Table 12. Summary of Selected Measures

	Existing Electric Consumption (kWh/Yr)	Proposed Electric Consumption (kWh/Yr.)	Electric Consumption Savings (kWh/Yr.)	Total Energy Savings ($/Yr.)	Average Maintenance Materials Savings ($/Yr.)	Total Savings ($/Yr.)	Total L&M Costs ($)	Estimated Utility Incentives ($)	Est. Net Cost* ($)	Est. Simple Payback (Yrs)
ARM-G5 & ANX-G4	0	(124,006)	124,006	$15,841	$0	$15,841	$1,875,810	$0	$1,875,810	118
TOTAL	0	(124,006)	124,006	$15,841	$0	$15,841	$1,875,810	$0	$1,875,810	**118**

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