

Budget Narrative: Solar and Energy Efficiency Improvements in Energy-Burdened Schools

Budget Detail

Applicants should provide a detailed breakout for each GHG reduction measure in their application by funding type included in the proper budget category for each activity requesting funds.

DBSD has provided a detailed breakout for its single GHG reduction measure, including funding type by budget category for each activity. To implement its measure, DBSD's budget includes costs for:

- DBSD program management and staff needs for providing technical assistance.
- Building materials, equipment, and construction costs, including under Other for consultant reviews of product submittals, and Alaska Municipal League (AML) as subrecipient,
- Subaward funding to the Alaska Municipal League (a nonprofit, nongovernmental organization) to support reporting, monitoring, workforce development, and stakeholder engagement.

All funds are included as federal funds, as part of the request to EPA for CPRG implementation grant funding. Total project funding is \$4,705,471.

This project is scalable – if grant awards were less than this amount then DBSD would work with schools based on facility priority.

Budget by Cost Category

Personnel – Total Personnel Budget over 4 years for Measure 1 is \$268,243; for Measure 2: \$67,059.

This grant requires a Project Manager that is 50% (.50 FTE) assigned to this grant programs. The starting salary is \$37634 with projected 4% increases over years 2 through 5. In addition, 12.5% of AP/Payroll for tracking of contractors' payments and other expenses related to the grant, and 12.5% for the Business Manager to oversee grant requirements and reporting is required for this project. The starting salary for the AP/Payroll clerk is \$3,954 for the first year with 4% increases for each of years 2 through 4. For the Business Manager, the starting salary is \$8,708 for the first year, with 4% increases for each of years 2 through 4. Staff salaries are divided with 75% of costs to Measure 1 for four years, and 25% for Measure 2 for three years. The Budget Calculations spreadsheet provided by EPA has been provided as an attachment to the application that identifies costs for each Measure. The total cost of the budget period over the four years for all staff is \$268,243 for Measure 1 and \$67,059 for Measure 2.

Fringe Benefits – Total Fringe Benefits Budget over 4 years for Measure 1 is \$9,468 and \$3,153 for Measure 2.

The benefits include retirement benefits, employee insurance benefits, and paid leave.

Travel – Total Travel Budget over 4 years for Measure 1 is \$5,029, Measure 2: \$2,515.

In state Travel: Project Manager to travel to each school for the following activities each week for 16 weeks:

DDC control system (Measure 1)

Anderson school 1 trip weekly 80-mile round trip, 16 trips x .655/ mile = \$838.40 (2026-2028)

Solar (Measure 2)

Anderson School: 1 trip weekly 80-mile round trip, 16 trips x .655/ mile = \$838.40 (2024-2025)

Furnace replacement (Measure 1)

Cantwell School: 1 trip weekly 80-mile round trip, 16 trips x .655/ mile = \$838.40 (2026-2028)

Solar (Measure 2)

Cantwell School: 1 trip weekly 80-mile round trip, 16 trips x .655/ mile = \$838.40 (2024-2025)

Door & window replacement:

Tri-Valley School: no travel

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Equipment – Total Equipment and Materials Budget over 4 years for both Measures is \$1,463,154

Anderson School: Direct Digital Control system (DDC) for HVAC systems in a 44,407 sq ft building. software and Hardware \$496,028

Cantwell School: Furnace replacement 2, 190,000 BTU horizontal forced air fuel fired furnaces. \$289,497.00

Tri-Valley School: Door and window replacement

Doors: 24 triple pane doors \$103,191.00

Overhead doors: 360 sq ft insulated doors \$65,952.00.

Window replacement: triple pane window 1,971 sq ft \$231,317.00

Window blinds: 1,971 sq ft \$33,310.00.

An escalation clause is a provision in a contract that calls for adjustments in fees, wages, or other payments to account for fluctuations in the costs of raw materials or labor. This clause shifts the burdens for increasing materials and labor costs from the contractor to the client.

Contractual – Total Contractual costs over the four years of the project is \$2,573,193. Measure 1: \$2,062,914, and for Measure 2: \$510,279.

Anderson School: DDC installation project 2024-2025 Design Build contract (Designer & Contractor same company)

Design cost \$99,266.00

Mobilization General operating costs and office overhead \$74,404.00

Contractor's mark-up, Risk, and profit. \$59,895.00

Bonds and insurance. \$18,910.00

Geographic Area Cost factor \$108,942.00

Construction Contingencies:

General for construction unknowns and unanticipated on site and design. \$113,727.00

Unique Market Risk: Contingency due to COVID-19 coronavirus pandemic's effect on the economy \$30,517.00

ESCALATION: escalation added for future cost Estimates beyond 2025 10%

An escalation clause is a provision in a contract that calls for adjustments in fees, wages, or other payments to account for fluctuations in the costs of raw materials or labor. This clause shifts the burdens for increasing materials and labor costs from the contractor to the client.

Cantwell School: Furnace replacement Project 2026-2028 Design Bid Build project (Design/Engineering and Contractor, 2 separate contracts.

Design/engineers: Responsibility creation of Construction drawings / and Contractors bid documents, and three site visits for project inspection. including substantial completion.

Design Cost: \$73,523.00

Contractor:

Mobilization General operating costs and office overhead \$55,109.00

Contractor's mark-up, Risk, and profit. \$44,362.00

Bonds and insurance. \$14,006.00

Geographic Area Cost factor \$80,690.00

Construction Contingencies:

General for construction unknowns and unanticipated on site and design. \$84,234.00

Unique Market Risk: Contingency due to COVID-19 coronavirus pandemic's effect on the economy \$22,603.00

ESCALATION: escalation added for future cost Estimates beyond 2025 10%

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Tri-Valley School: Door and Window replacement project 2024-2026. Design Bid Build project. (Design/Engineering and Contractor, 2 separate contracts.

Design/engineers: Responsibility creation of Construction drawings, Contractors bid documents, and three site visits for project inspection. including substantial completion.

Design Cost: \$114,790.00

Contractor:

Mobilization General operating costs and office overhead \$67,765.00

Contractor's mark-up, Risk, and profit. \$51,953.00

Bonds and insurance. \$17,145.00

Geographic Area Cost factor \$151,228.00

Construction Contingencies:

General for construction unknowns and unanticipated on site and design. \$125,794.00

Unique Market Risk: Contingency due to COVID-19 coronavirus pandemic's effect on the economy \$33,755.00

ESCALATION: escalation added for future cost Estimates beyond 2025 10%

Solar Contract all Three Schools this is a Design build turnkey project (Designer & Contractor same company) Reasonability's-Design and install system including power hook up to school's power system, file SNAP paperwork with local power company (Golden Valley Electric) and certify a fully operational system.

Tri-Valley School increased the existing system by another 50, USA made 400-watt solar panels to the roof of the school to bring the system to 30KW production \$117,978.00.

Anderson School: Contractor to install 70 panel ground mount USA made 400-watt solar panel system to produce 30KW. \$129,225.00

Cantwell School: Contractor to install 70 panel ground mount USA made 400-watt solar panel system to produce 30KW. \$134,135.00

Tri-Valley School: Consultant reasonability's review product submittals, do final commissioning report on project. \$22,958.00

Project overhead contingency \$57,395.00

Demolition: \$17,996.00

Anderson School: Consultant reasonability's review product submittals, do final commissioning report on project. \$39,706.00

Project overhead contingency \$49,633.00

Cantwell School: Consultant reasonability's review product submittals, do final commissioning report on project. \$29,409.00

Project overhead contingency \$36,762.00

Demolition: \$77,894.00

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Other – Subrecipient Awards

Alaska Municipal League Support- total award over 5 years \$226,364

Cost Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Personnel	\$15,000	\$15,375	\$15,759	\$16,153	\$16,557	\$78,844
Fringe Benefits	\$4,650	\$4,766	\$4,885	\$5,008	\$5,133	\$24,442
Travel	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$12,500
Contractual	\$50,000	\$10,000	\$10,000	\$10,000	\$10,000	\$90,000
Total Direct Charges	\$72,150	\$32,641	\$33,144	\$33,661	\$34,190	\$205,786
Indirect Charges	\$7,215	\$3,264	\$3,314	\$3,366	\$3,419	\$20,578
Total Other	\$79,365	\$35,905	\$36,458	\$37,027	\$37,609	\$226,364

- Personnel: The personnel budget includes COLA increases of 2.5% annually, with total costs for this item are \$78,844. AML has budgeted for a Program coordinator (approx. .15 FTE of annual salary of \$90,000) – responsible for implementation of project award. This is estimated to start at \$15,000 a year.
- Fringe: AML budgets an average fringe rate of 31% applied to each personnel line item, for a total of \$24,442 in fringe benefits. AML has calculated its fringe to include contributions to retirement, full coverage of health insurance, leave and holidays, and workers comp and other insurance, as well as federal taxes. The breakdown of fringe calculations is as follows Social Security (6.20%), Medicare (1.45%), Unemployment (1%), Health and Life Insurance (15%), Retirement (5%), and PTO/Holidays (1.81%).
- Travel: Juneau-based staff will travel to Anchorage for monitoring and engagement activities. AML has budgeted \$2,500 annually for this, with two travelers for three days/two nights. The lodging rate used for Anchorage is \$229-279/night, flights ranging from \$385-450. A 3-day per diem rate in Anchorage is estimated to be \$435. Rates are based on GSA standards.
- Contractual: AML maintains a robust contract/subrecipient monitoring system for measuring accountability, evaluating actual costs against budgets submitted, as well as by performance metrics based on scopes of work. Regular meetings with contractors and subrecipients ensure that the project is on track and milestones met. AML will follow 2 CFR 200 and its procurement policy to secure subrecipients and contractors, as necessary. AML will work with current contractors supporting the State's CPRG GHG emissions inventory activities to produce a statewide monitoring dashboard for progress under CPRG, which successful awardees can contribute to. This expands the scope of the current activities, with up-front costs for development and then maintenance costs budgeted for the following years. Costs have been pro-rated across applicants.
- Indirect: AML does not have a negotiated indirect rate, and has applied a de minimis rate of 10% to all direct costs (MTDC), including the first \$25,000 of each contract or subrecipient.

Indirect Charges – Total Budget over 4 years of the project is: \$191,961.14. Measure 1: \$177,203; Measure 2: \$14,758.

DBSD has a federally negotiated indirect rate of 9.99%, which is budgeted each year for administrative costs of the District. Department of Education and Early Development's established policy applies indirect to the first \$25,000 of each contract/subaward.

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Reasonableness of Costs

The cost estimate is based on historic costs and quotes secured within the last year. The budget includes contingency and risk mitigation measures, recognizing supply chain, workforce, and inflation effects that may impact the project schedule and delivery. The cost estimate is consistent with Department of Education and Early Development and Denali Borough School District best practices, and both DEED and DBSD are confident in each component's success based on the budget.

The proposed grant expenditures are tailored to achieve the outlined goals, objectives, and measurable environmental outcomes described in the application. By prioritizing energy efficiency initiatives within school facilities, DEED and DBSD aim to significantly reduce GHG emissions while enhancing operational efficiency. These targeted expenditures are not only reasonable but also strategically aligned with DEED and DBSD's commitment to sustainability and long-term environmental stewardship. DEED and DBSD are confident that the proposed initiatives will yield tangible and measurable results, showcasing a clear path towards substantial energy savings and environmental impact reduction.

There are a number of considerations that impact higher costs in Alaska. [This resource](#) from the Alaska Department of Education covers the reasonableness of higher costs in Alaska. The Alaska Housing Finance Corporation, too, provides several resources:

- <https://www.ahfc.us/efficiency/commercial-buildings>
- This is related to schools, but has broad application
 - https://www.ahfc.us/application/files/4114/1866/9804/Energy_Efficiency_of_Public_Buildings_in_Alaska_Schools.pdf
- There is clearly a return on this investment, according to this
 - https://www.ahfc.us/application/files/9614/1866/9905/Potential_Paybacks_from_Retrofitting_Alaskas_Public_Buildings.pdf