

Budget Narrative
Prepared by: Electric Power Systems, Inc. for City of Unalaska

Consolidated Budget

BUDGET BY YEAR							
COST-TYPE	CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Direct Costs	TOTAL PERSONNEL	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL FRINGE BENEFITS	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL TRAVEL	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL EQUIPMENT	\$10,180,000	\$16,940,000	\$6,850,000	\$0	\$0	\$33,970,000
	TOTAL SUPPLIES	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL CONTRACTUAL	\$10,970,000	\$47,634,333	\$32,665,333	\$4,090,333	\$0	\$95,360,000
	TOTAL OTHER	\$100,000	\$1,250,000	\$1,250,000	\$0	\$0	\$2,600,000
	TOTAL DIRECT	\$21,250,000	\$65,824,333	\$40,765,333	\$4,090,333	\$0	\$131,930,000
	TOTAL INDIRECT	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL FUNDING		\$21,250,000	\$65,824,333	\$40,765,333	\$4,090,333	\$0	\$131,930,000

BUDGET BY PROJECT			
Project Number	Project Name	Total Cost	% of Total
1	<i>Solar Electric Generation</i>	<i>\$8,930,000</i>	<i>7%</i>
2	<i>Wind Electric Geneation</i>	<i>\$107,560,000</i>	<i>82%</i>
3	<i>Makushin Geothermal</i>	<i>\$12,840,000</i>	<i>10%</i>
4	<i>Optimized Diesel-Electric</i>	<i>\$2,600,000</i>	<i>2%</i>
5	<i>Name 5</i>	<i>\$0</i>	<i>0%</i>
Total		<i>\$131,930,000</i>	<i>100%</i>

Detailed Itemized List Measure 1 - Solar Electric Generation

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Personnel, Fringe Benefits, Travel, Equipment, Supplies, Other						
						\$0
						\$0
						\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

Budget Narrative
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Contractual						
Solar (2 MW), turn-key system with equipment, materials, site installation, inverters	\$4,795,000	\$1,370,000	\$685,000			\$6,850,000
Site distribution connection/transformer		\$480,000				\$480,000
System testing	\$30,000	\$30,000				\$60,000
Engineering, 10% of construction cost (excluding Equipment)	\$584,000	\$73,000	\$73,000			\$730,000
Project Management and Administration (10% of Equipment and all other Contractual costs)	\$270,000	\$270,000	\$270,000			\$810,000
						\$0
TOTAL CONTRACTUAL	\$5,679,000	\$2,223,000	\$1,028,000	\$0	\$0	\$8,930,000

Notes: Contractual costs were based on a recent construction quote for a project of similar size in a similar remote-Alaska location. Electric Power Systems and Electric Power constructors worked closely with a solar vendor to provide accurate material and construction costs in Unalaska. The numbers were built on recent construction quotes for multiple projects in rural Alaska.

TOTAL DIRECT	\$5,679,000	\$2,223,000	\$1,028,000	\$0	\$0	\$8,930,000
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Indirect Costs						
						\$0
						\$0
TOTAL INDIRECT	\$0	\$0	\$0	\$0	\$0	\$0

TOTAL FUNDING		\$5,679,000	\$2,223,000	\$1,028,000	\$0	\$0	\$8,930,000
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Detailed Itemized List Measure 2 - Wind Electric Generation / Battery Energy Storage System

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Personnel, Fringe Benefits, Travel, Supplies, Other						
						\$0
						\$0
						\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

Equipment						
Site 1, 5 Wind Turbines, Base Cost (DW58-1000 HH59)	\$4,175,000	\$4,175,000				\$8,350,000
Site 1, 5 Wind Turbines, Additional Equipment (Wind Curtailment, Aviation Lights, Reactive Power Control, etc)	\$300,000	\$300,000				\$600,000
Site 1, 5 Wind Turbines, Shipping to Seattle Port		\$2,090,000				\$2,090,000
Site 2, 5 Wind Turbines, Base Cost (DW58-1000 HH59)		\$4,360,000	\$4,360,000			\$8,720,000
Site 2, 5 Wind Turbines, Additional Equipment (Wind Curtailment, Aviation Lights, Reactive Power Control, etc)		\$310,000	\$310,000			\$620,000
Site 2, 5 Wind Turbines, Shipping to Seattle Port			\$2,180,000			\$2,180,000
BESS System, 10 MW	\$5,705,000	\$5,705,000				\$11,410,000
						\$0
TOTAL EQUIPMENT	\$10,180,000	\$16,940,000	\$6,850,000	\$0	\$0	\$33,970,000

Notes: Equipment wind turbine costs & BESS costs are based on quotes for equipment with

Budget Narrative
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consideration for the electrical requirements, seismic potential, and remote site considerations.

Contractual					
Site 1, 5 Wind Turbines, Construction Contract, Mobilization and Demobilization. Includes transportation of minor materials, construction equipment, job shacks, etc.		\$3,530,000			\$3,530,000
Site 1, Install anchor rods for wind turbines		\$720,000			\$720,000
Site 1, Civil construction to prepare the ground for equipment installation.		\$3,340,000			\$3,340,000
Site 1, Civil construction to develop access road to project site		\$1,790,000			\$1,790,000
Site 1, Concrete foundations for turbines		\$2,740,000			\$2,740,000
Site 1, Transportation/consolidation cost for major equipment and construction materials from Seattle port to work site.		\$9,220,000			\$9,220,000
Site 1, Installation of site electrical infrastructure		\$552,000	\$368,000		\$920,000
Site 1, Electrical connection for 5 turbines to site electrical infrastructure			\$1,490,000		\$1,490,000
Site 1, System testing			\$410,000		\$410,000
Site 1, Engineering, 10% of construction cost (excluding Equipment)	\$1,936,000	\$242,000	\$242,000		\$2,420,000
Site 1, Project Management and Administration (10% of Equipment and all other Contractual costs)	\$1,253,333	\$1,253,333	\$1,253,333		\$3,760,000
Site 2, 5 Wind Turbines, Construction Contract, Mobilization and Demobilization. Includes transportation of minor materials, construction equipment, job shacks, etc.			\$3,680,000		\$3,680,000
Site 2, Install anchor rods for wind turbines			\$750,000		\$750,000
Site 2, Civil construction to prepare the ground for equipment installation.			\$3,490,000		\$3,490,000
Site 2, Civil construction to develop access road to project site			\$3,740,000		\$3,740,000
Site 2, Concrete foundations for turbines			\$2,870,000		\$2,870,000
Site 2, Transportation/consolidation cost for major equipment and construction materials from Seattle port to work site.			\$9,640,000		\$9,640,000
Site 2, Installation of site electrical infrastructure			\$576,000	\$384,000	\$960,000
Site 2, Electrical connection for 5 turbines to site electrical infrastructure				\$1,560,000	\$1,560,000
Site 2, System testing				\$420,000	\$420,000
Site 2, Engineering, 10% of construction cost (excluding Equipment)		\$2,264,000	\$283,000	\$283,000	\$2,830,000
Site 2, Project Management and Administration (10% of Equipment and all other Contractual costs)		\$1,443,333	\$1,443,333	\$1,443,333	\$4,330,000
Site 3 (BESS), Construction Contract, Mobilization and Demobilization. Includes transportation of minor materials, construction equipment, job shacks, etc.		\$1,760,000			\$1,760,000
Site 3, Civil construction to create access road to site and prepare site		\$360,000			\$360,000
Site 3, Civil to create pads for BESS equipment installation		\$1,190,000			\$1,190,000
Site 3, Transportation/consolidation cost for major equipment and construction materials from Seattle port to work site.		\$1,840,000			\$1,840,000
Site 3, Installation of site electrical infrastructure and connection to equipment		\$610,000	\$610,000		\$1,220,000
Site 3, System testing			\$110,000		\$110,000
Site 3, Engineering, 10% of construction cost (excluding Equipment)	\$520,000	\$65,000	\$65,000		\$650,000
Site 3, Project Management and Administration (10% of Equipment and all other Contractual costs)	\$616,667	\$616,667	\$616,667		\$1,850,000

Budget Narrative
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Notes: Contractual pricing was developed based on a construction cost estimate developed in 2022 for a similarly sized project. This was augmented with engineering and PM/Admin costs based on typical DBB projects of this scale.

TOTAL DIRECT	\$14,506,000	\$50,476,333	\$38,487,333	\$4,090,333	\$0	\$107,560,000
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Indirect Costs						
						\$0
						\$0
TOTAL INDIRECT	\$0	\$0	\$0	\$0	\$0	\$0

TOTAL FUNDING		\$14,506,000	\$50,476,333	\$38,487,333	\$4,090,333	\$0	\$107,560,000
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Detailed Itemized List Measure 3 - Geothermal Electric Generation Resource Study

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Personnel, Fringe Benefits, Travel, Equipment, Supplies, Other						
						\$0
						\$0
						\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

Contractual						
Geothermal, Barge Charter		\$600,000				\$600,000
Site Prep and Equipment Staging		\$450,000				\$450,000
Helicopter Support CH-47D (Mob/Demob + 40days)		\$3,000,000				\$3,000,000
Helicopter Crew Support - Bell 212 (Mob/Demob + 40days)		\$830,000				\$830,000
Drill Mob/Demob		\$110,000				\$110,000
Drill Day Rate inc. Camp, Fuel, Consumables: 75,000/day, 40 days		\$3,280,000				\$3,280,000
Casing, Tubing, Wellhead		\$1,550,000				\$1,550,000
Test Well Pumping Station		\$790,000				\$790,000
Engineering, 10% of construction cost (excluding Equipment)	\$848,000	\$212,000				\$1,060,000
Project Management and Administration (10% of Equipment and all other Contractual costs)	\$117,000	\$1,053,000				\$1,170,000
						\$0
						\$0
						\$0
TOTAL CONTRACTUAL	\$965,000	\$11,875,000	\$0	\$0	\$0	\$12,840,000

Notes: Costs are based on a mixture of similar projects, non-binding quotes from relevant parties (helicopter, barge, drilling companies), and knowledge of local conditions and the site constraints of building on the nearby island.

TOTAL DIRECT	\$965,000	\$11,875,000	\$0	\$0	\$0	\$12,840,000
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Budget Narrative
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Indirect Costs						
						\$0
						\$0
TOTAL INDIRECT	\$0	\$0	\$0	\$0	\$0	\$0

TOTAL FUNDING		\$965,000	\$11,875,000	\$0	\$0	\$0	\$12,840,000
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Detailed Itemized List Measure 4 - Diesel Generation Coordination & Reserve Sharing

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Personnel, Fringe Benefits, Travel, Equipment, Supplies, Contractual						
						\$0
						\$0
						\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

SCADA Integration of Power Producers	\$100,000	1250000	1250000			\$2,600,000
						\$0
						\$0
						\$0
						\$0
						\$0
TOTAL OTHER	\$100,000	\$1,250,000	\$1,250,000	\$0	\$0	\$2,600,000

Notes: Costs are based on a mixture of similar projects, non-binding quotes from relevant parties and knowledge of local conditions and the site constraints of building on the nearby island.

TOTAL DIRECT	\$100,000	\$1,250,000	\$1,250,000	\$0	\$0	\$2,600,000
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Indirect Costs						
						\$0
						\$0
TOTAL INDIRECT	\$0	\$0	\$0	\$0	\$0	\$0

TOTAL FUNDING		\$100,000	\$1,250,000	\$1,250,000	\$0	\$0	\$2,600,000
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Expenditure of Awarded Funds

For any and all contracts and procurement associated with funding received through this project, City of Unalaska will comply with applicable federal procurement guidelines and follow our procurement guidelines which were developed to ensure compliance with both state and federal grants requirements. The Director of Public Works and staff, City Manager, Public Utilities Department, and Finance Department have managed every project locally. The City managerial staff are experienced in developing solicitations for Requests for Proposals (RFP's) and negotiating contracts for completion of project components. The City's Finance Department provides financial management and accounting functions for all City funds. Past and current grant awards have successfully met federal and state audit standards and have followed all regulatory requirements. An independent accounting firm conducts annual audits. The Management Team meets weekly to review grant-funded projects. Project

Budget Narrative
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management software is used to track assignment and completion of tasks, due dates of reports and deliverables, project scheduling, and completion of grant requirements. Progress and financial reports are completed regardless of whether expenditures or progress on the project were made during the reporting period. Unalaska has successfully managed multiple Federal, State, foundation, corporate, and private grants. Due to Unalaska's short summer construction season, many projects are multi-year projects.

A general outline of the City of Unalaska's approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner within the grant period is as follows:

Pre-Grant Planning and Budgeting:

- Conduct thorough pre-grant planning to determine the objectives, scope, and budget of the project.
- Develop a detailed budget that aligns with the grant guidelines and covers all project expenses.
- Allocate funds appropriately across different project components and activities.

Establishment of Controls:

- Implement robust financial controls and procedures to ensure compliance with grant requirements and regulations.
- Designate a grant administrator or project manager responsible for overseeing fund expenditure and adherence to timelines.
- Develop clear guidelines and policies for expenditure approval, documentation, and reporting.

Monitoring and Reporting Mechanisms:

- Regularly monitor expenditure against the budget to track spending patterns and identify any deviations.
- Implement a system for documenting all expenses, including invoices, receipts, and payment records.
- Generate timely financial reports to provide stakeholders with updates on fund utilization and project progress.

Timely Payment Processing:

- Streamline payment processing procedures to ensure prompt settlement of invoices and bills.
- Prioritize payments based on urgency and impact on project activities.
- Establish clear protocols for verifying the accuracy and legitimacy of invoices before processing payments.

Contract Management:

- Maintain effective contract management practices to ensure that all contractual obligations are met within the grant period.
- Monitor vendor performance and compliance with deliverables to prevent delays and budget overruns.
- Renew or renegotiate contracts as necessary to accommodate changes in project scope or requirements.

Risk Management:

- Identify potential risks that could impact the timely expenditure of grant funds, such as budgetary constraints, resource shortages, or external factors.

Budget Narrative

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- Develop contingency plans to mitigate risks and address any unforeseen challenges that may arise.
- Regularly review and update risk assessments to adapt to changing circumstances throughout the project lifecycle.

Communication and Collaboration:

- Foster open communication and collaboration among project team members, stakeholders, and funding agencies to ensure alignment on project objectives and priorities.
- Hold regular meetings and checkpoints to discuss expenditure status, address concerns, and make necessary adjustments to the budget or project plan.
- Maintain transparency in financial reporting and decision-making processes to build trust and confidence among stakeholders.

Compliance and Audit Oversight:

- Conduct periodic internal audits to assess compliance with grant requirements, financial regulations, and organizational policies.
- Prepare for external audits by maintaining accurate and up-to-date financial records and documentation.
- Address any findings or recommendations from audits promptly and implement corrective actions to strengthen controls and improve efficiency.