Request for Qualifications

Pyramid Water Treatment Plant Inline MicroTurbines Design

DPU Project No. 17401

Prepared by:

City of Unalaska
Department of Public Works

PO Box 610
Unalaska, Alaska 99685

November 30, 2018

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LIST OF ACRONYMS

ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
ASFM	Alaska State Fire Marshal
BEP	Best Efficiency Point
CAD	Computer Aided Drafting
CFS	Cubic Feet per Second
CMMP	Capital and Major Maintenance Plan
CT	Contact Time
EPS	Electrical Power Systems
FERC	Federal Energy Regulatory Commission
FFE	Fixed Floor Elevation
GPM	Gallons per Minute
GPRV	Generating Pressure Reducing Valve
KWH	Kilo-Watt-Hour
kVA	Kilo-Volt-Ampere
MG	Million Gallons
MLW	Mean Low Water
MGD	Million Gallons per Day
MPPT	Maximum Power Point Tracking
PDF	Portable Document Format
PRV	Pressure Reducing Valve
PSI	Pounds per Square Inch (gauge)
RFP	Request for Proposals
RFQ	Request for Qualifications
SCADA	Supervisory Control and Data Acquisition
UV	Ultra Violet
WTP	Water Treatment Plant

1.0 INTRODUCTION

This is a RFQ by the City of Unalaska Department of Public Works for engineering services for preliminary design of the installation of inline MicroTurbine power generation (or GPRVs) at the City of Unalaska Pyramid WTP. All questions about this RFQ are to be directed to the City Engineer.

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Phone 907-581-1260 x8106

Interpretations or clarifications considered necessary by the City of Unalaska in response to such questions will be issued by Addenda. Addenda will be emailed to all registered potential Respondents and also posted on the City of Unalaska website:

http://www.ci.unalaska.ak.us/rfps

To be added to the registration list published on the City of Unalaska website send an email to:

lgregory@ci.unalaska.ak.us

1.1 PROJECT BACKGROUND

The City of Unalaska has about 4,500 permanent residents and supports the largest seafood industry in the U.S. in terms of volume. During various seafood processing seasons, the total population may swell to more than 8,000 due to an influx of transient employees hired to work for the seafood processors. In order to meet water system demand, the City of Unalaska relies on three groundwater wells in the Unalaska Valley and an unfiltered surface water treatment plant herein referred to as the Pyramid WTP or the WTP in the Pyramid Valley. Water system demand ranges from about 1.5 MGD to 8 MGD closely following the seafood processing seasons. Seafood processing seasons vary but do not typically exhibit high water demand in May or November-December.

The Pyramid Valley watershed is located in Unalaska, Alaska on Unalaska Island in the Aleutian Archipelago and drains approximately 4.9 square miles of mountainous tundra growing atop deposits of volcanic ash underlain with shallow glacial till and friable bedrock. It is accessible by an unpaved gravel road, Pyramid Road, controlled and

maintained by the City of Unalaska. The uppermost sub-watershed is the Icy Creek Valley. Icy Creek Valley is a 0.24-square mile drainage discharging into a 17-acre alpine lake, Icy Lake, situated at 727-feet MLW in a glaciated trough with about a 57 MG storage capacity of which ½ is accessible for use by the City of Unalaska's Water Utility. The level of Icy Lake was historically raised by a 6-feet high sheet pile dam with discharge controlled through a remotely operated valve on a 24-inch pipe which extends about 1,200-feet downstream before discharging into Icy Creek. Overflow and controlled discharge are routed 2,600-feet overland through Icy Creek across an alluvial valley to a man-made lake, Icy Creek Reservoir, at 517.8-feet MLW with an impoundment of 9.6 MG. Icy Creek Reservoir gathers an additional 3-square miles of drainage along the way.

Icy Creek Reservoir is impounded by a 28-feet tall and 280-feet long sheet pile dam. Water from Icy Creek Reservoir spills over the crest of the dam back into Icy Creek. The highest recorded flow measurement was 367 CFS on December 9, 2011, but the spillway is also often dry as water released from Icy Lake is prioritized for municipal use. 2,100-feet downstream of Icy Creek Reservoir, Icy Creek confluences with the East Fork of Pyramid Creek and becomes Pyramid Creek, which discharges into Captain's Bay about 6,668-feet further downstream.

Prior to the Icy Creek Reservoir spillway, raw water can be diverted 6,200-feet through an automated valve on a 24-inch ductile iron pipe to a tee just below the Pyramid WTP at 252-feet MLW. From the tee, water can either continue uphill 320-feet to the Pyramid WTP inlet at 298.5-feet FFE MLW or, by opening a manual butterfly valve at the tee, it can be discharged into an air gap manhole where it breaks head and is conveyed down a steep 24-inch penstock to Pyramid Creek, discharging at 185.2-feet MLW. The discharge penstock is rated at 12,000 GPM and has energy dissipaters at the discharge point. Normally, raw water continues 320-feet uphill to the Pyramid WTP and after entrance is reduced to 16-inch stainless steel pipe. The Pyramid WTP is a 6,250 GPM maximum, 2,500 GPM average and 280 GPM minimum facility. At least 500 GPM is typical for stable operation of the various processes and sensors.

Inside the Pyramid WTP, the raw water continues through a 34.5-feet section of straight pipe which crosses a 16-feet wide by 34-feet long floor space dedicated for a future MicroTurbine. After the straight pipe, the line branches again. One branch conveys discharge water back downhill 320-feet to the air gap manhole through an automated valve on a 16-inch pipe. This discharge water line is used to automatically clear turbidity from the raw water line whenever necessary to maintain UV transmittance requirements. The other branch continues as raw water through two parallel basket strainers. At the outlets of the basket strainers, the line reconnects and then is expanded back to 24-inch and split through two parallel UV reactors. Recombined with a reduction to 16-inch, it is then chlorinated, continues through a flowmeter, and then is split again through two parallel PRVs which drops pressure 30 PSI to operate quickly enough to adjust for rapidly varying flows.

After the PRVs, the treated water line leaves the building and continues underground 211.5-feet (including riser) through a 16-inch line to the 2.6 MG CT Tank with discharge into the CT Tank at 293.5-feet FFE through a 35.5-feet tall perforated riser. The CT Tank head is normally maintained at 329-feet MLW.

All pipes are Class 52 ductile iron outdoors and 304L SCH40S stainless steel indoors.

The discharge of Pyramid Creek to Captains Bay is an anadromous reach. However; pink and Coho salmon cannot run over a waterfall located about 1,200-feet downstream of the Pyramid WTP discharge. The waters upstream of this waterfall are populated by freshwater resident Dolly Varden up into Icy Creek Reservoir to a waterfall located about midway to Icy Lake.

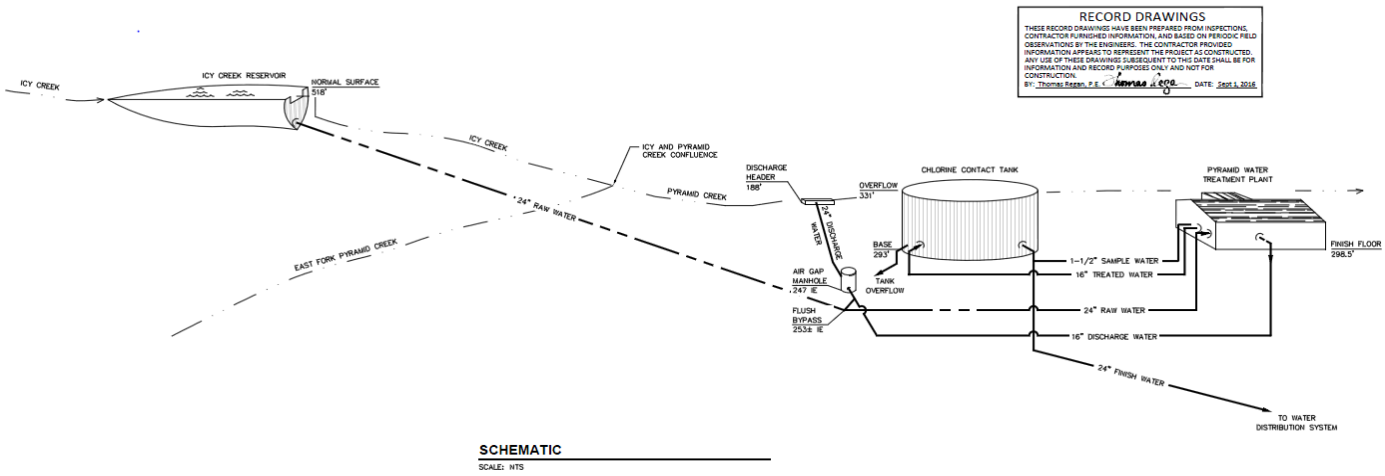

Figure 1. Icy Creek Reservoir to the Pyramid WTP.

2.0 SCOPE OF SERVICES

The requested services are as outlined below. The City of Unalaska considers historical work Phase I and intends to award this Project as Phase II Pre-Design Scoping and Supplier Procurement followed by Phase III Schematic Design then Phase IV Construction and Commissioning.

Phase II has a budget of $50,000.

- Scoping Study
- Competitive selection of qualified GPRV manufacturers
- 15% plans and cost estimate

Phase II-III of the Project is expected to be complete before June 30, 2020.

2.1 PHASE II – PRE-DESIGN SCOPING

The scoping study will bridge the Project from feasibility analysis into schematic design and construction. The scoping study provides an evaluation of the existing facility and available information to select inline MicroTurbines (GPRVs) best suited to facility needs. A GPRV system dedicated to energy recovery on existing infrastructure requires considering some constraints not experienced in the case of conventional hydropower infrastructure. Specifically, this scoping study will address energy recovery in a drinking water treatment plant, where the primary function of the infrastructure is to deliver water to consumers. The primary function must be preserved at all times and the inclusion of GPRVs planned accordingly.

The scoping study is the planning activity and documentation required to achieve a successful outcome for this Project. It follows initial planning and precedes the schematic design and construction stages. The scoping study is the “business plan” for the Project and identifies the goals to for how the Project will function to serve operations and obtain the full support and embracement by the City of Unalaska and the community. The scoping study will communicate essential Project objectives with factual data, such as cost estimates and preliminary schematics, before the full design process commences or other decisions are made.

This Project supports the future installation of inline MicroTurbines on existing pipelines in or in the vicinity of the Pyramid WTP. Historically, a great deal of study has been put into hydroelectric generation on the Pyramid system in many configurations, but this Project is specifically for inline MicroTurbines (GPRVs) using existing infrastructure to the extent practical. Based on previous work by others and information presented to the

City Council during the CMMP process, a location for inline MicroTurbines has already been identified.

DPW evaluated the available studies and different siting scenarios using a hydraulic model which estimates benefits based on hourly flow data from 2010-2012. We feel the model is conservative and on that basis, an acceptable best cost benefit would be the following:

a) A single GPRV; or should payback and floor space allow two parallel GPRVs with partially overlapping operating ranges, operating in a lead lag mode then lead + lag mode, inside the Pyramid WTP on the 16-inch straight pipe previously dedicated for this purpose. Power generation is limited to treated water capacity to 6,250 GPM, at first, but in the future untreated water may be diverted as discharge water up to a total of both GPRVs flow capacity, as future operating conditions and permits, ADNR Water Rights in particular, allow.

The City of Unalaska wants the successful Respondent to consider or evaluate relevant requirements, even if an in depth evaluation is reserved for a later phase, including:

- This Project has been studied previously, Phase II is not intended to be another feasibility study; instead it is intended to bridge previous feasibility studies into schematic design and construction through a Scoping Study, 15% plans and identification of qualified GPRV manufacturers. Later in Phase II our goal is a lean design process in partnership with a qualified manufacturer to bring the right GPRVs online in late Winter 2019 through Spring 2020 following full design/construction funding in early Summer 2019 if approved by City Council.

- Gather available data, assess or validate any necessary models, develop selection criteria, specifications and pre-select manufacturer partners based in North America and conduct site visits if needed. Again, this is not a feasibility study; the manufacturers will be most efficient at taking provided data, modeling it in their equipment and recommending equipment sizes based on their standard products.

- The over 6,250 GPM scenario using treated or untreated water is a future scenario that roughly doubles payback from 10.6 down to 6.4 years, but the necessary permits for the future scenario will be difficult and time consuming to acquire. Obtaining those permits is currently out of scope but could be added in the future.

- The selected equipment could be sized for the future scenario and include controls to operate it while still providing satisfactory performance in the current scenario. Two parallel GPRVs at peak flow could do a combined total of 7,000 gpm, or even less, and the future scenario would be adequately covered. We

have observed through the 2010-2012 model that due to the actual flow duration frequency experienced through the WTP; the majority of the benefit isn't from passing very high but infrequent flows through the turbines. Rather the most benefit is from keeping smaller turbines fully loaded even when treated water demand is low but Icy Creek Reservoir overflow is available.

- The 2010-2012 model estimates 3,700-4,700 max gpm rating on Turbine 1 (see Figures 2 and 3) and 1,800-2,300 max gpm on Turbine 2 as optimum turbine combinations for both the current or future scenarios. The water to wheel hill efficiency curve used allows as low as 25% of BEP flows up to 125% of BEP flow (max gpm rating) with further reduction by an 80% wheel to wire factor.

  A single 4,000 gpm max turbine approaches a maximum payback in the current scenario but the future scenario optimized at 6,000 gpm.

Turbine 2, gpm

Turbine 1, gpm	0	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000
0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
500	$33,333	$62,406	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,000	$62,615	$84,800	$100,239	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,500	$84,455	$101,064	$112,797	$118,916	--	--	--	--	--	--	--	--	--	--	--	--	--
2,000	$99,652	$111,880	$120,899	$124,657	$124,637	--	--	--	--	--	--	--	--	--	--	--	--
2,500	$109,530	$118,481	$125,345	$127,098	$124,775	$121,311	--	--	--	--	--	--	--	--	--	--	--
3,000	$114,985	$120,926	$125,769	$127,257	$125,660	$122,263	$118,411	--	--	--	--	--	--	--	--	--	--
3,500	$117,017	$119,602	$124,633	$127,255	$126,946	$124,653	$121,201	$117,742	--	--	--	--	--	--	--	--	--
4,000	$115,380	$116,927	$123,420	$126,951	$127,660	$126,204	$123,313	$119,288	$115,521	--	--	--	--	--	--	--	--
4,500	$111,639	$112,897	$121,074	$125,335	$126,873	$126,222	$123,652	$119,956	$115,894	$111,647	--	--	--	--	--	--	--
5,000	$107,255	$108,421	$118,161	$123,033	$125,275	$125,379	$123,402	$120,099	$116,111	$111,781	$107,255	--	--	--	--	--	--
5,500	$102,143	$103,296	$113,039	$120,426	$123,281	$124,071	$122,685	$119,892	$116,175	$111,838	$107,285	$102,143	--	--	--	--	--
6,000	$96,968	$98,121	$107,865	$117,728	$121,125	$122,544	$121,732	$119,496	$116,155	$111,854	$107,296	$102,145	$96,968	--	--	--	--
6,500	$91,915	$93,068	$102,812	$115,071	$118,950	$120,942	$120,675	$119,005	$116,088	$111,848	$107,298	$102,146	$96,968	$91,915	--	--	--
7,000	$87,211	$88,364	$98,108	$112,521	$116,830	$119,343	$119,586	$118,472	$115,994	$111,830	$107,296	$102,146	$96,968	$91,915	$87,211	--	--
7,500	$82,623	$83,775	$93,519	$110,108	$114,801	$117,789	$118,506	$117,925	$115,886	$111,803	$107,291	$102,146	$96,968	$91,915	$87,211	$82,623	--
8,000	$78,111	$79,264	$89,008	$105,597	$112,881	$116,302	$117,457	$117,382	$115,771	$111,772	$107,283	$102,145	$96,968	$91,915	$87,211	$82,623	$78,111

Figure 2. Current scenario with turbines inside the WTP. Heat map shows estimated annual payback at 2010-2012 model settings for parralel turbines. Discharge (bypass) flow is set to 0.

Turbine 2, gpm

Turbine 1, gpm	0	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000
0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
500	$34,373	$67,211	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,000	$67,271	$96,642	$121,010	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,500	$96,660	$121,559	$141,987	$158,239	--	--	--	--	--	--	--	--	--	--	--	--	--
2,000	$121,270	$142,126	$159,642	$173,490	$183,505	--	--	--	--	--	--	--	--	--	--	--	--
2,500	$141,261	$158,942	$173,996	$185,557	$193,243	$198,467	--	--	--	--	--	--	--	--	--	--	--
3,000	$157,377	$172,240	$184,606	$194,407	$200,895	$204,404	$205,880	--	--	--	--	--	--	--	--	--	--
3,500	$170,167	$181,859	$192,346	$200,951	$206,655	$209,102	$209,084	$207,421	--	--	--	--	--	--	--	--	--
4,000	$179,627	$188,992	$198,170	$205,695	$210,487	$211,948	$210,744	$207,771	$204,076	--	--	--	--	--	--	--	--
4,500	$186,237	$193,706	$201,975	$208,253	$212,099	$212,716	$210,735	$207,128	$202,936	$198,691	--	--	--	--	--	--	--
5,000	$190,800	$196,596	$203,783	$208,804	$211,743	$211,832	$209,354	$205,792	$201,751	$197,956	$194,367	--	--	--	--	--	--
5,500	$193,273	$197,318	$202,899	$207,695	$210,045	$209,991	$207,911	$204,678	$201,381	$197,768	$193,978	$190,064	--	--	--	--	--
6,000	$193,983	$196,632	$200,433	$205,527	$207,790	$208,061	$206,610	$204,511	$201,881	$198,509	$194,974	$191,152	$187,366	--	--	--	--
6,500	$193,021	$194,010	$197,196	$203,372	$205,944	$206,881	$206,613	$205,225	$203,069	$200,051	$196,759	$193,103	$189,172	$185,501	--	--	--
7,000	$190,801	$190,901	$193,616	$201,209	$204,286	$206,372	$206,754	$205,769	$204,041	$201,305	$198,245	$194,724	$190,821	$186,847	$183,490	--	--
7,500	$187,634	$187,205	$189,720	$198,938	$203,029	$205,733	$206,511	$205,954	$204,682	$202,266	$199,484	$196,169	$192,418	$188,329	$184,683	$181,378	--
8,000	$183,549	$182,917	$185,537	$195,445	$201,811	$204,945	$206,150	$206,026	$205,163	$203,028	$200,374	$197,141	$193,523	$189,487	$185,810	$182,517	$179,135

Figure 3. Future scenario with turbines inside the WTP. Heat map shows estimated annual payback at 2010-2012 model settings for parralel turbines. Discharge (bypass) flow is set to 5,500 gpm.

- A defensible procurement basis for pre-approved equipment and partnering with that supplier early in the Project. The procurement will be phased. A document similar to this RFQ will be used to pre-qualify at least 3 vendors and then an RFP will be let in a later phase. The contract between the City of Unalaska and the manufacturer will be similar to that employed by the City of Unalaska powerhouse when purchasing generators and other capital equipment. In other words templates previously used by the City of Unalaska for similar procurements are available.

- Limitations such as consideration of hydraulic transients, cavitation, air entrainment, settleable solids or onerous permitting requirements.

- It is critical that we reconfigure or replacing the existing in-plant PRVs with automatic flow control valves to repurpose the 30 PSI head loss incurred to operate PRVs to the GPRVs. The existing PRVs are CLA-VAL Hytrols 16" 631G-36BCSVYKC.

  The PRVs are rated to operate at about 7 PSI but need about 30 PSI to open and close rapidly enough to keep up with the actual rapid flow fluctuations and keep the CT tank full. Keep rapidly varying flow in mind as one of the criteria for PRV replacement or modification and also the GPRV manufacturer selection.

  <u>If the current PRV energy loss is not addressed this is not a cost effective project.</u>

- How the MicroTurbines and ancillary equipment will fit into the existing space already dedicated to a future MicroTurbine inside the Pyramid WTP in a restricted plant floor space.

- The Water Division continuously measures and records flow data from the Icy Creek Reservoir spillway and the flowmeters inside the Pyramid WTP. Therefore, except if necessary for permitting, this is not a hydrology study and calculations can be made using historical data provided by the City of Unalaska recorded on an hourly basis from 2010-2012 and later. The caveat is reserving enough residual pressure to keep the CT Tank full. The estimated pressure available at the GPRV inlet at flow is available in the 2010-2012 model.

  The treated water supply, maintaining a full CT tank and maintaining contingency storage in Icy Lake and Icy Creek Reservoir will always be prioritized over power production. Therefore the Utility will not operate the storage system any differently than historical data indicates even with GPRVs.

- The equipment selection should not only use daily average and peak flows, but also consider actual flow duration and frequency versus equipment BEPs (efficiency hill chart).

- The most suitable types of GPRVs and manufacturers for this facility with BEPs and overlapping operating ranges that best fit the flow duration frequency and available plant floor space with domestic spare parts service and availability.

- The City of Unalaska will help identify land use requirements, provide ARC-GIS maps and AUTOCAD single line of the utility, front end documents, historical bid tabs and schedule of values, as-builts including CAD files of Pyramid WTP record drawings, SCADA data from the Icy Lake Reservoir and the Pyramid WTP, topographic maps, high resolution power production load data and customer metering information.

- Develop construction cost estimates in spring 2019 so that the City of Unalaska can use them in the CMMP process to fully fund the Project.

- The MicroTurbines will feed a NET metering system at market rates into the existing 34.5 kVA 3-phase primary. Evaluate whether load dumping or additional batteries are necessary.

- The City of Unalaska powerhouse will not be able to force the GPRV to make more power by increasing flow but they must be able to reduce power generation by remotely manipulating the MPPT or a flow bypass without impacting water production.

- Current electric service power analysis to analyze feasibility for sizing and penetration into the remote micro-grid system, taking into account current and future electric production demands.

- In the event of a utility power failure at the Pyramid WTP, an existing battery system maintains plant operations for 5-minutes while the back-up generator warms up. The MicroTurbine system must be compatible with this and all other operating scenarios.

- Consider the provided historical utility bills for the Pyramid WTP.

- Appropriate or typical or creative procurement methodology for this application, such as project manager at risk, and other related considerations.

- Revised Pyramid WTP control narrative and concept schematics of selected alternative.

- Construction windows and sequencing that minimizes Pyramid WTP down time. Due to the fish processing seasons this construction window is May or November-December.

- Permits to generate power from more than just the treated water could be a significant obstacle. The City of Unalaska is currently permitted to intermittently discharge extra water for the purposes of clearing turbidity from the raw water main only, but not solely for power generation. One result of the scoping study will be a decision by the City of Unalaska whether to pursue permits for additional take from Icy Creek, or to limit the sizing to treated water or a scalable system with capacity for higher flows future permits allowing.

- Enumeration and evaluation of required permits. The following permits or authorizations may be required.

    - FERC Licensing. Determination, exemptions, certifications and licensing.

    - ADF&G. May set terms and conditions for discharge of waters over those previously permitted.

    - ADNR Water Rights. The City of Unalaska currently only has rights to that water used to supply the drinking water distribution system.

    - APDES. The City of Unalaska currently is permitted only to discharge raw water that was used to purge the raw water line of turbidity and dechlorinated sample water. The CT Tank overflow was also retrofitted with a dechlorination device.

    - ADEC Water Division. Authority to Construct and Permit to Operate for Drinking water treatment system system changes and replacing PRVs with GPRVs and/or automatic flow control valves.

    - ASFM Review. Life safety and electrical/mechanical review.

2.2 PHASE III – DESIGN (NEGOTIATED WITH PHASE II CONSULTANT OR REBID)

- Manufacturer RFP
- 35%, 65% and 95% plans, specifications, project manual, cost estimate and City of Unalaska reviews
- Permitting
- Bid plans, specifications, project manual and bid services

2.3 PHASE IV – CONSTRUCTION SERVICES (NEGOTIATED WITH PHASE II CONSULTANT OR REBID)

- Construction administration
- Commissioning support
- Permit closeout
- Project closeout by June 30, 2020

2.4 PROJECT TEAM

The City of Unalaska anticipates the following primary support:

- Project Management
- Process Pipe Engineering
- Permitting
- Electrical Engineering and Powerhouse Link Process Controls (sourced to current City electrical engineering firm EPS under prime)
- Mechanical Process Controls (sourced to current City of Unalaska controls engineering firm Boreal Controls under prime)
- GPRV Supplier
- Construction Contractor

3.0 DELIVERABLES

Microturbine options will be refined with staff meetings to provide input and feedback with selections ultimately incorporated into the future improvement. The Scoping Study results should be summarized in a written technical memorandum and other visuals, including the 15% plans that present the information to the City of Unalaska. Anticipate 10% and 15% level reviews by the City of Unalaska with each review period lasting about 2 weeks.

An RFQ for the manufacturer will not be let until after the Scoping Study and 15% plans are complete. The selected respondent will generate the RFQ and participate in the selection process. It is anticipated that the RFQ is essentially an extension of the Scoping Study and 15% plans in that the technical memorandum should be written in anticipation of its usefulness in pre-qualifying manufacturers.

Project communication will be primarily through the City Engineer and Deputy Utility Director.

3.1 DOCUMENTS

Provide a PDF copy of draft documents; four bound hardcopies of the final document; one PDF copy provided on CD or flash drive; and all drawing files must also be provided in AutoCAD or ARC-GIS and PDF format.

4.0 SELECTION PROCESS

Only one Statement of Qualifications from any individual, firm, partnership or corporation, under the same or different names, will be considered. Should it appear to the City of Unalaska that any Respondent is interested in more than one Statement of Qualifications for the work contemplated, then all Statements of Qualifications in which such Respondent is interested will be rejected.

This does not preclude a subcontractor from appearing in more than one Statement of Qualifications. However; our recommendation is that the Statements of Qualifications focus on the project management and architectural team rather than other disciplines.

4.1 EVALUATION AND AWARD PROCESS

The Evaluation Team will be appointed by the City Engineer from among City of Unalaska staff. The entire scoring procedure, including Evaluation Team meetings and scoring materials, will be held strictly confidential until after negotiations are concluded.

All Evaluation Team members will be required to certify that they have no conflicts of interest and that they will strictly adhere to the procedures herein described.

- The City of Unalaska receives the Statements of Qualifications.
- Evaluation Team evaluates the Statements of Qualifications according to established criteria.
- The Evaluation Team will schedule and conduct a phone interview with at least the two highest scored Respondents.
- The Evaluation Team re-evaluates the interviewed Respondents according to the established criteria.
- City Engineer reviews final scores and forwards evaluation results to the Director of Public Works.
- Negotiation with the Respondent with the highest scored Statement of Qualifications or, if necessary, the next lower scored responsive Respondent and so on. The Contract will be the Engineering and Related Services Agreement, **Attachment B**. The City of Unalaska will be inflexible with regards to the Contract language. The Scope of Services, Schedule and Fee for Services are negotiable.

- Director of Public Works forwards evaluation results and the Contract to the City Manager.

- City Manager makes their recommendation to the City Council for Contract award.

The City of Unalaska and the successful Respondent execute the Contract and a purchase order. The purchase order serves as Notice to Proceed.

4.2 CONDITIONS

The City of Unalaska reserves the right to reject any and all Statements of Qualifications and/or to waive any informality in procedures.

This RFQ does not commit the City of Unalaska to award a Contract, or procure or Contract for any services of any kind whatsoever.

The selection of a successful Respondent shall be at the sole discretion of the City of Unalaska. No agreement between the City of Unalaska and any Respondent is effective until the contract is approved by the City Council of the City of Unalaska, signed by the City Manager and a purchase order completed.

The City of Unalaska is not liable for any costs incurred by Respondents in preparing or submitting Statements of Qualifications.

In submitting a Statement of Qualifications, each Respondent acknowledges that the City of Unalaska is not liable to any entity for any costs incurred therewith or in connection with costs incurred by any respondent in anticipation of City of Unalaska City Council action approving or disapproving any agreement without limitation.

Any perception of a conflict of interest is grounds for rejections of any Statement of Qualifications. In submitting a Statement of Qualifications, each Respondent certifies that they have not and will not create and/or be party to conflicts of interest with any City of Unalaska official or employee, including but not limited to any direct or indirect financial gain and/or gratuity or kickback or through unauthorized communication with City employees or officials not listed in this RFQ before the selection process is complete.

Nothing in this RFQ or in subsequent negotiations creates any vested rights in any person or entity.

4.3 TRANSMITTAL REQUIREMENTS

Statements of Qualifications must be delivered to the email addresses below by **2:00 p.m., local time, on January 17, 2019**.

mveeder@ci.unalaska.ak.us; rwinters@ci.unalaska.ak.us

Statements of Qualifications will only be accepted before and on the published date, and until the time specified.

Statements of Qualifications must be submitted in a single email no larger than **5 megabytes**. The email header must clearly identify the Project and the Respondent e.g.

Name of Consulting Firm – Statement of Qualifications for City of Unalaska Pyramid Water Treatment Plant Inline MicroTurbines Design

The City of Unalaska complies with Title II of the American with Disabilities Act of 1990 and the Rehabilitation Act of 1973. Individuals with disabilities who may need auxiliary aids or services or special modifications to participate in the RFQ process should contact the Director of Public Works at 907-581-1260.

4.4 DOCUMENT REQUIREMENTS

One (1) copy of the Statement of Qualifications must be submitted in an electronic PDF file less than 5 megabytes in size, organized with bookmarks, and printable to standard 8.5” x 11” and 11” x 17” paper.

Our intent is that the preparation and review of an RFQ is not an onerous task. So the recommended size of the Statement of Qualifications is about 3-5 pages not including resumes.

5.0 EVALUATION FACTORS

The purpose of the Statement of Qualifications is to evaluate each Respondent's capabilities for efficient execution of the Project. Evaluation criteria and weight are as follows.

Major Factor	**Weight**
1. Professional Qualifications	[40]
2. Experience and References	[30]
3. Narrative	[30]
Total	**[100]**

The Evaluation Team will rank each Respondent using a successive integer ranking system for each major factor. An Evaluator Score for each Respondent will be calculated.

$100 - ((Ranking_1 \times \%\ Weight_1 + Ranking_2 \times \%\ Weight_2 + Ranking_3 \times \%\ Weight_3)-1) \times 5$

The Total Score for each Respondent is an average of all of the Evaluator Scores.

The *Evaluation Score Sheet* will be used by the Evaluation Team to score each Statement of Qualifications; **Attachment C**.

5.1 PROFESSIONAL QUALIFICATIONS

The Professional Qualifications section should include:

- A brief description of the number, qualifications and types of key personnel who would serve on this Project including employees and potential subcontractors.
- Identify and furnish resumes of up to three key personnel and/or subcontractors who will serve in key positions for this project, including specific experience for each person on similar or related projects.
- Billing rates of key personnel in tabular format.

- The location of the home office and the scope of services offered there.

- Any additional information reflecting on the Respondents ability to perform on this Project.

5.2 EXPERIENCE AND REFERENCES

The satisfactory completion of similar projects of equal size and complexity will be an important element in the evaluation.

- Provide information for two (2) projects for which the Respondent has provided services most related to this Project.

- Provide a reference from the above projects that can comment on the firm's professional capabilities and experience. Names, email addresses and phone numbers of individual to contact must be included.

- Provide a sealed sample floor plan and a sheet of details similar to this project that was prepared before 2019.

5.3 NARRATIVE WORK PLAN

Describe the methodology the Respondent will use to complete this Project for the City of Unalaska. The Narrative Work Plan will be developed into the *Scope of Services* referenced within the *Agreement Exhibit "A"*, **Attachment B**. The Narrative Work Plan must not conflict with or supersede the *Agreement;* however, the Respondent should note any potential conflicts they would prefer to negotiate.

Provide information about the Respondents availability to complete the work.

6.0 REFERENCES

The information and descriptions provided are for general informational purposes only and are not a substitute for industry knowledge, site inspection and completion of other necessary due diligence by interested Respondents. Respondents must make their own independent assessment of the conditions and may not rely entirely on any representation, description, or diagram provided by the City of Unalaska in preparing their Proposal. Various references are provided for informational purposes only at the below hyperlink as **Attachment C**.

References

6.1 REFERENCES INCLUDED

These are references we believe are most valuable for basic information needed to evaluate this RFQ.

- Electrical rates and billing for Pyramid WTP.
- Miscellaneous photographs.
- Water System Master Plan, HDR, May 2018.

  Includes a Microturbine analysis.
- SCADA Data and Turbine Model Spreadsheet, City of Unalaska, January 2018.
- Pyramid WTP Record Drawings, Larsen Consulting Group, September 2016.
- Technical Memorandum #2 Pyramid Water Treatment Plant Discharge System Design, Larsen Consulting Group, August 2013.

  CAD files and O&M Manual are available but not provided here.
- Technical Memorandum #1 Pyramid Water Treatment Plant Discharge Study, Larsen Consulting Group, February 2013.
- Inline Turbine for Energy Recovery at the Water Treatment Plant, HDR, May 2009.
- Pyramid Creek Hydroelectric Project Preliminary Design and Permitting Services, HDR, May 1999.

- Rural Hydroelectric Assessment and Development Study, Prepared for the Alaska Department of Community and Regional Affairs, Division of Energy, by Locker Interest LTD, Anchorage, Alaska, August 1997.
- Icy Lake Reservoir, Golder Associates, May 1995.
- Icy Creek Dam and Reservoir Improvements, Wince-Corthell-Bryson, April 1995.
- Icy Creek Power Recovery Study, PolarConsult Alaska, Inc., April 1994.
- Icy Lake Feasibility Study, Golder Associates, July 1994.
- Schedule A Pyramid Creek Waterline Replacement, James M. Montgomery Consulting Engineers, Inc., May 1993.
- Chlorine Contact Reservoir, CH2MHill, August 1992.

The below reports are referenced historically but the City of Unalaska was unable to locate copies.

- Unalaska, Alaska Final Small Hydropower Interim Feasibility Report and Environmental Impact Statement, U.S. Army Corps of Engineers, July 1984.
- Overview Pyramid Creek Hydroelectric Project, Energy Stream, Inc. (ESI), January 1985.
- North Fork Pyramid Creek Hydropower Study, Polarconsult Alaska, January 1993.
- Streamflow Data Report Pyramid Creek Drainage Basin, Carrick and Ireland, August 1996.

ATTACHMENT A

References

ATTACHMENT B

Draft Consulting Services Agreement

CITY OF UNALASKA

DRAFT Consultant Agreement

Pyramid Water Treatment Plant Inline MicroTurbines Design

FILE NO. 17401

Prepared By:

City of Unalaska
P.O. Box 610
Unalaska, Alaska 99685
907.581.1260

TABLE OF CONTENTS

AGREEMENT FOR CONSULTING AND RELATED SERVICES

THIS AGREEMENT is entered into this _____ day of _____**, 2019** by and between _____**,** (hereinafter called "Consultant"), and the **CITY OF UNALASKA** (hereinafter called "City").

WITNESSETH THAT:

WHEREAS City desires to engage Consultant to render consulting and related services for the performance of the **Pyramid Water Treatment Plant Inline MicroTurbines Design**, and

WHEREAS Consultant represents that it has the experience and ability to perform such services; and

WHEREAS the parties hereto desire to enter into a basic agreement setting forth the terms under which Consultant will, as requested, perform such work;

NOW THEREFORE the parties hereto do mutually agree as follows:

1. Employment of Consultant

   Consultant agrees to provide professional services in accordance with the provisions of this Agreement. A written description of the work to be performed, schedule and compensation is set out in **Exhibits A-C** of this Agreement.

2. Performance

   Consultant agrees to perform the work described in **Exhibit A- Scope of Services**; however, the Consultant is not authorized to perform any work or incur any expense which would cause the amount for which he is entitled to be paid under this Agreement to exceed the amount set forth in **Exhibit C – Fee Proposal** without the prior written approval of the City. All services shall be rendered in accordance with the schedule set forth in **Exhibit B – Contract Schedule**.

   The work shall include but not be limited to the following: furnishing all equipment, transportation, per diem, travel, and supplies to perform all scopes of work that are authorized under the State of Alaska's Professional Engineering License, in connection with the **Pyramid Water Treatment Plant Inline MicroTurbines Design**.

3. Fee

After receipt of a periodic billing for said services, the City agrees to pay Consultant as compensation for the services under this Agreement such sums of money as set forth in **Exhibit C** of this Agreement. The amount payable to the Consultant shall not exceed the amount specified in **Exhibit C**.

4. Payments

City agrees to make monthly payments to Consultant as services are performed and costs are incurred, provided Consultant submits a proper invoice for each payment, in such form accompanied by such evidence in support thereof as may be reasonably required by the City. City may, at its option, withhold ten percent (10%) from each monthly payment pending satisfactory completion of the work by Consultant. All invoices are otherwise due and payable within thirty (30) days of receipt by City. City shall pay Consultant for the services identified in **Exhibit A** the **Time and Expense Not to Exceed Total Fee of $_____**. The Not to Exceed Total Fee is based on the distribution of the Not to Exceed Total Fee between tasks set forth in **Exhibit A.** The portion of the Not to Exceed Total Fee billed and paid for Consultant's services shall be equal to the proportion of services actually completed for each task set forth in **Exhibit A** during the billing period to the fee total specified for that task.

5. Personnel

Consultant agrees to furnish all personnel necessary for expeditious and satisfactory performance of this Agreement, each to be competent, experienced, and well qualified for the work assigned. No person objected to by the City shall be employed by Consultant for work hereunder.

6. Independent Contractor Status

In performing under this Agreement, Consultant acts as an independent contractor and shall have responsibility for and control over the details and means for performing the consulting services required hereunder.

7. Indemnification

Consultant shall defend and save harmless City or any employee, officer, insurer, or elected official thereof from and against losses, damages, liabilities, expenses, claims, and demands but only to the extent arising out of any negligent act or negligent omission of Consultant while performing under the terms of this contract.

City shall defend and save harmless Consultant or any employee, officer, or insurer thereof from and against losses, damages, liabilities, expenses, claims, and demands but only to the extent arising out of any negligent act or negligent omission of City while performing under the terms of this contract.

8. Assignment

Consultant shall not assign this Agreement or any of the monies due or to become due hereunder without the prior written consent of City.

9. Subcontracting

Consultant may not subcontract its performance under this Agreement without prior written consent of City. Any subcontractor must agree to be bound by terms of this Agreement.

10. Designation of Representatives

The Parties agree, for the purposes of this Agreement, the City shall be represented by and may act only through the Deputy Director of Public Utilities or such other person as he may designate in writing. Consultant shall advise City in writing of the name of its representative in charge of the administration of this Agreement, who shall have authority to act for and bind Consultant in connection with this Agreement.

11. Termination

Either party shall have the right to terminate this Agreement in whole or in part at any time and for reasonable cause, by delivery of thirty (30) days written notice, specifying the extent and effective date thereof. After receipt of such notice, Consultant shall stop work hereunder to the extent and on the date specified in such notice, terminate all subcontracts and other commitments to the extent they relate to the work terminated, and deliver to City all designs, computations, drawings, specifications and other material and information prepared or developed hereunder in connection with the work terminated.

In the event of any termination pursuant to this clause, Consultant shall be entitled to be paid as provided herein for direct labor hours expended and reimbursable costs incurred prior to the termination pursuant to Section 3 hereof, and for such direct labor hours and reimbursable costs as may be expended or incurred thereafter with City's approval in concluding the work terminated, it being understood that Consultant shall not be entitled to any anticipated profit on services not performed. Except as provided in this clause, any such termination shall not alter or affect the rights or obligations of the parties under this Agreement.

12. Ownership and Use of Documents

Work products produced under this Agreement, except items which have pre-existing copyrights, are the property of the City. Payments to the Consultant for services hereunder include full compensation for all work products produced by the Consultant and its Subcontractors and the City shall have royalty free nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, such work products.

Should the City elect to reuse work products provided under this Agreement for other than the original project and/or purpose, the City will indemnify the Consultant and its Subcontractors against any responsibilities or liabilities arising from such reuse. Additionally, any reuse of design drawings or specifications provided under this Agreement must be limited to conceptual or preliminary use for adaptation and the original Consultant or Subcontractor's signature, professional seals and dates removed. Such reuse of drawings and specifications, which require professional seals and dates removed, will be signed, sealed and dated by the professional who is in direct supervisory control and responsible for all adaptation.

13. Insurance

A. During the term of the contract, the Contractor shall obtain and maintain in force the insurance coverage specified in these requirements. Such coverage shall be with an insurance company rated "Excellent" or "Superior" by A. M. Best Company, or a company specifically approved by the City.

B. The contractor shall carry and maintain throughout the life of this contract, at its own expense, insurance not less than the amounts and coverage herein specified, and the City of Unalaska, its employees and agents shall be named as additional insured under the insurance coverage so specified and where allowed, with respect to the performance of the work. There shall be no right of subrogation against the City or its agents performing work in connection with the work, and this waiver of subrogation shall be endorsed upon the policies. Insurance shall be placed with companies acceptable to the City of Unalaska; and these policies providing coverage thereunder shall contain provisions that no cancellation or material changes in the policy relative to this project shall become effective except upon *30* days prior *written* notice thereof to the City of Unalaska.

C. Prior to commencement of the work, the contractor shall furnish certificates to the City of Unalaska, in duplicate, evidencing that the Insurance policy provisions required hereunder are in force. Acceptance by the City of Unalaska of deficient evidence does not constitute a waiver of contract requirements.

D. The contractor shall furnish the City of Unalaska with certified copies of policies upon request. The minimum coverages and limits required are as follows:

1. Workers' Compensation insurance in accordance with the statutory coverages required by the State of Alaska and Employers Liability insurance with limits not less than $1,000,000 and, where applicable, insurance in compliance with any other statutory obligations, whether State or

Federal, pertaining to the compensation of injured employees assigned to the work, including but not limited to Voluntary Compensation, Federal Longshoremen and Harbor Workers Act, Maritime and the Outer Continental Shelf's Land Act.

2. Commercial General Liability with limits not less than $1,000,000 per Occurrence and $2,000,000 Aggregate for Bodily Injury and Property Damage, including coverage for Premises and Operations Liability, Products and Completed Operations Liability, Contractual Liability, Broad Form Property Damage Liability and Personal Injury Liability.

3. Commercial Automobile Liability on all owned, non-owned, hired and rented vehicles with limits of liability of not less than $1,000,000 Combined Single Limit for Bodily Injury and Property Damage per each accident or loss.

4. Umbrella/Excess Liability insurance coverage of not less than $1,000,000 per occurrence and annual aggregate providing coverage in excess of General Liability, Auto Liability, and Employers Liability.

5. If work involves use of aircraft, Aircraft Liability insurance covering all owned and non-owned aircraft with a per occurrence limit of not less that $1,000,000.

6. If work involves use of watercraft, Protection and Indemnity insurance with limits not less than $1,000,000 per occurrence.

7. Professional Liability insurance with limits of not less than $1,000,000 per claim and $1,000,000 aggregate, subject to a maximum deductible $10,000 per claim. The City of Unalaska has the right to negotiate increase of deductibles subject to acceptable financial information of the policyholder.

E. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expense.

F. All insurance policies as described above are required to be written on an "occurrence" basis. In the event occurrence coverage is not available, the contractor agrees to maintain "claims made" coverage for a minimum of two years after project completion.

G. If the contractor employs subcontractors to perform any work hereunder, the contractor agrees to require such subcontractors to obtain, carry, maintain, and keep in force during the time in which they are engaged in performing any work hereunder, policies of insurance which comply with the requirements as set forth in this section and to furnish copies thereof to the City of Unalaska. This requirement is applicable to subcontractors of any tier.

14. Claims Recovery

Claims by City resulting from Consultant's failure to comply with the terms of and specifications of this contract and/or default hereunder may be recovered by City by withholding the amount of such claims from compensation otherwise due Consultant for work performed or to be performed. City shall notify Consultant of any such failure, default or damage therefrom as soon as practicable and no later than 10 days after discovery of such event by written notice. Nothing provided herein shall be deemed as constituting an exclusive remedy on behalf of City, nor a waiver of any other rights hereunder at law or in equity. Design changes required as a result of failure to comply with the applicable standard of care shall be performed by the Consultant without additional compensation.

15. Performance Standard

Services performed under this Agreement will be performed with reasonable care or the ordinary skill of the profession practicing in the same or similar location and under similar circumstances and shall comply with all applicable codes and standards.

16. Compliance with Applicable Laws

Consultant shall in the performance of this Agreement comply with all applicable federal, state, and local laws, ordinances, orders, rules, and regulations applicable to its performance hereunder, including without limitation, all such legal provisions pertaining to social security, income tax withholding, medical aid, industrial insurance, workers' compensation, and other employee benefit laws. Consultant also agrees to comply with all contract provisions pertaining to grant or other funding assistance which City may choose to utilize to perform work under this Agreement. The Consultant and all subcontractors must comply with state laws related to local hire and prevailing wages.

17. Records and Audit

Consultant agrees to maintain sufficient and accurate records and books of account, including detailed time records, showing all direct labor hours expended and all

reimbursable costs incurred and the same shall be subject to inspection and audit by City at all reasonable times. All such records and books of account pertaining to any work performed hereunder shall be retained for a period of not less than six (6) years from the date of completion of the improvements to which the consulting services of this Agreement relate.

18. Reporting of Progress and Inspection

Consultant agrees to keep City informed as to progress of the work under this Agreement by providing monthly written progress reports, and shall permit City to have reasonable access to the work performed or being performed, for the purpose of any inspection City may desire to undertake.

19. Form of City Approval

Except as otherwise provided in this Agreement, City's requests and approvals, and Consultant's cost estimates and descriptions of work to be performed, may be made orally where necessary, provided that the oral communication is confirmed immediately thereafter in writing.

20. Duration of Agreement

This agreement is effective for a period of three (3) years from the date first shown above. The agreement may be extended by the mutual written agreement of City and Consultant.

21. Inspections by City

The City has the right, but not the duty, to inspect, in the manner and at reasonable times it considers appropriate during the period of this Agreement, all facilities and activities of the Consultant as may be engaged in the performance of this Agreement.

22. Endorsements on Documents

Endorsements and professional seals, if applicable, must be included on all final plans, specifications, estimates, and reports prepared by the Consultant. Preliminary copies of such documents submitted for review must have seals affixed without endorsement (signature).

23. Notices

Any official notice that either party hereto desires to give the other shall be delivered through the United States mail by certified mail, return receipt requested, with postage thereon fully prepaid and addressed as follows:

To City:	To Consultant:
Tom Cohenour, DPW Director	_____
City of Unalaska	_____
Box 610	_____
Unalaska, Alaska 99685	_____

The addresses hereinabove specified may be changed by either party by giving written notice thereof to the other party pursuant to this paragraph.

24. Venue/Applicable Law

The venue of any legal action between the parties arising as a result of this Agreement shall be laid in the Third Judicial District of the Superior Court of the State of Alaska and this contract shall be interpreted in accordance with the laws of the State of Alaska.

25. Attorney's Fees

In the event either party institutes any suit or action to enforce its right hereunder, the prevailing party shall be entitled to recover from the other party its reasonable attorney's fees and costs in such suit or action and on any appeal therefrom.

26. Waiver

No failure on the part of City to enforce any covenant or provisions herein contained, nor any waiver of any right hereunder by City, unless in writing and signed by the parties sought to be bound, shall discharge or invalidate such covenants or provisions or affect the right of City to enforce the same or any other provision in the event of any subsequent breach or default.

27. Binding Effect

The terms, conditions and covenants contained in this Agreement shall apply to, inure to the benefit of, and bind the parties and their respective successors.

28. Entire Agreement/Modification

This agreement, including **Exhibits A-C**, and the Consultant's proposal dated _____constitutes the entire Agreement between the parties with respect to the subject matter hereof, and all prior negotiations and understandings are superseded and replaced by this Agreement and shall be of no further force and effect. No modification of this Agreement shall be of any force or effect unless reduced to writing, signed by both parties and expressly made a part of this Agreement.

In witness whereof, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective date indicated below.

CONSULTANT: _____

By:_____
_____, Its _____

State of Alaska)
) ss.
Third Judicial District)

The foregoing instrument was acknowledged before me on the ____ day of _____, 2019, by _____, the _____ of _____, a _____ Corporation, on behalf of the corporation.

_____
Notary Public, State of Alaska
My Commission Expires _____

CITY OF UNALASKA, ALASKA

By:_____
Thomas Thomas, City Manager

State of Alaska)
) ss.
Third Judicial District)

The foregoing instrument was acknowledged before me on the ____ day of _____, 2019, by Thomas Thomas, City Manager for the City of Unalaska, a First Class Alaska Municipal Corporation, on behalf of the City of Unalaska.

_____
Notary Public, State of Alaska
My Commission Expires _____

CITY OF UNALASKA

EXHIBIT "A"
SCOPE OF SERVICES

The Consultant will work with the City to complete the **Pyramid Water Treatment Plant Inline MicroTurbines Design**

In general accordance with the narrative work plan in the statement of qualifications dated _____ and the proposal dated _____ attached.

CITY OF UNALASKA

Pyramid Water Treatment Plant Inline MicroTurbines Design

EXHIBIT "B"

CONTRACT SCHEDULE

Completion date is _____.

CITY OF UNALASKA

EXHIBIT "C"

FEE PROPOSAL

Fee Proposal dated _____attached.

ATTACHMENT C

Evaluation Score Sheet

Proposal Evaluation

Pyramid Water Treatment Plant Inline MicroTurbines Design

Technical Attributes	***Weight***	***%***	**A**	**B**	**C**	**D**		
Professional Qualifications	*40*	*40.0%*	100.0	95.0	90.0	85.0		
Experiences and References	*30*	*30.0%*	85.0	90.0	95.0	100.0		
Narrative	*30*	*30.0%*	85.0	95.0	100.0	100.0		
Technical Proposal Raw Score	*100*	--	91.0	93.5	94.5	94.0		
Technical Proposal Adjusted Score	--	*100%*	91.0%	93.5%	94.5%	94.0%		

Enter the Price Proposal (if any) in USD

Cost Attributes	***Weight***	***%***	**A**	**B**	**C**	**D**		
Cost USD	*0*	--						
Price Proposal Score	--	*0%*	0.0%	0.0%	0.0%	0.0%		

	A	**B**	**C**	**D**		
Total Score	**91.0%**	**93.5%**	**94.5%**	**94.0%**		
Ranking	**4**	**3**	**1**	**2**		

Proposal Evaluation
Pyramid Water Treatment Plant Inline MicroTurbines Design

For each Technical Attribute rank each Respondent starting with 1,2,3,4,5 and 6 and so forth. 1 is best, 2 is next best, 3 is third best, etc.. Do not skip or repeat numbers.

Attributes	*Weight*	*%*	A	B	C	D		
Professional Qualifications	*40*	*40.0%*	1	2	3	4		
Experiences and References	*30*	*30.0%*	4	3	2	1		
Narrative	*30*	*30.0%*	4	2	1	1		

Do not edit. The below calculates the rankings you entered above as a percentage. Each successive rank is a difference of 5%.

Attributes	*Weight*	*%*	A	B	C	D		
Professional Qualifications	*40*	*40.0%*	100.0	95.0	90.0	85.0		
Experiences and References	*30*	*30.0%*	85.0	90.0	95.0	100.0		
Narrative	*30*	*30.0%*	85.0	95.0	100.0	100.0		
Total Weight	*100*	*100.0%*	91.0	93.5	94.5	94.0		
Ranking			4	3	1	2		

I certify that I have no conflicts of interest and that I have strictly adhered to the procedures described in the Request for Qualifications.

Evaluator Signature:

Date: