M AlexRenew

RFP-25-001: BASIC ORDERING AGREEMENT (BOA) FOR PROFESSIONAL ENGINEERING SERVICES

Preproposal Meeting and Site Tour

August 20, 2024

Today's presentation is for information only

- RFP will remain the governing document
- Only an official addendum will modify the RFP
- Any questions received at today's Preproposal Meeting may be answered verbally. However, oral statements may not be relied upon and will not be binding or legally effective.



Presentation outline

- AlexRenew Background
- BOA for Professional Engineering Services Anticipated Scope of Services
- Draft Professional Services Contract Terms and Conditions
- Procurement Process



Today's Speakers





Felicia Glapion

Chief Engineering Officer Caitlin Feehan

Chief Administrative Officer



Kevin Pilong

Engineering Manager



Paul Carbary

Senior O&M Advisor (Site Tour Lead)





Purifies 13 billion gallons of wastewater at its facility each year

Serves over 300,000 customers in Alexandria and Fairfax County

> \$1 billion 10-year Capital Improvement Program

> > Independent authority

Governed by a 5-member citizen Board

ABOUT ALEXRENEW





Operational Excellence

Taking proactive steps to meet current and future challenges

Thriving Workforce

Investing in our staff and fostering a culture of belonging

Environmental Sustainability

Being good stewards of our resources to minimize our impact on the environment

Commitment to Community

ALEXRENEW STRATEGIC GOALS

Strengthening connections with the public and providing affordable service

Strategic Partnerships

Promoting watershed-level thinking through collaboration and advocacy



AlexRenew's \$1.2 billon of assets



20-miles of intercepting sewers

2.2-mile combined sewer tunnel and associated infrastructure Five sewage pumping stations



ENGINEERING BASIC ORDERING AGREEMENTS OVERVIEW

ANTICIPATED SCOPE

- Owner's Advisor for Tertiary System Upgrade Project
- Job Order Contract design support
- WRRF load study (including additional capacity)
- Electrical and HVAC upgrade planning

CONTRACT TYPE

• Professional engineering services

CONTRACT LIMITS

- \$2.5 million for any single project
- \$10 million per year

CONTRACT DURATION

- January 2025 January 2026
- Renewable for up to 3 additional years

- Environmental justice policy and implementation support
- Environmental sustainability implementation support
- Capital improvement programming, planning, and reporting



SCOPE OF WORK

- Filter media replacement
- Filter rehabilitation
- Tertiary settling tank equipment upgrades
- Valve replacement

DELIVERY METHOD

• Progressive design-build

ESTIMATED CONSTRUCTION COST

• \$30 million (Class V estimate)

SCHEDULE

- Request for Qualifications: February 2025
- Notice to Proceed: November 2025

TERTIARY SYSTEMS UPGRADE PROJECT



Tertiary Settling Tanks at AlexRenew



The **Tertiary Systems Upgrade Project** is being implemented to improve equipment reliability and process performance

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- Filter rehab
- Media and valve replacement

- Tertiary settling tank equipment upgrades
- Chemical dosing system upgrades

SCOPE OF OWNER'S ADVISOR SERVICES FOR TERTIARY SYSTEMS UPGRADE PROJECT

- Procurement Assistance
 - Managing the process
 - Participating in proprietary meetings
 - Technical advisory role
- Preconstruction and Design Phase Assistance
 - Reviews of designs, costs and schedule
 - Supporting Owner in coordinating with Design-Builder
- Construction Phase Assistance
 - Submittal reviews, change management
 - Supporting Owner in coordinating with Design-Builder and CM/RE&I



Respondent providing OA services is precluded from pursuing Tertiary Systems Upgrade Project Progressive Design-Build

SCOPE OF JOB ORDER CONTRACT SUPPORT









AlexRenew WRRF INFLUENT LOAD TRENDS

2003-2023





WRRF influent flows (millions of gallons)

- Influent total suspended solids (pounds/day)
- Influent carbonaceous biochemical oxygen demand (pounds/day)

The decline in billed flows has resulted in higher concentrations of influent pollutants, resulting in increased loadings to AlexRenew's Water Resource Recovery Facility.

Task Order 11 recommendations to address additional capacity that require further review by the Engineering BOA

Centrate Pretreatment Upgrades:Add 3rd Reactor

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Primary Settling Tank Upgrades:Increase settling area

Preliminary Treatment Upgrades:

- Replace existing 6-mm fine screen with 3-mm, needed for integrated fixed film activated sludge (IFAS) system
- Re-route Filter Backwash to Primary Settling Tanks during Peak Flows
- New preliminary treatment train in new facility

Nutrient Management Facility Upgrades: • Add 4MG tank

Biological Reactor Basin Upgrades:
Implement IFAS in 4 tanks and reconfigure 2-train operation

PLANT PERMIT LIMITS AND WASTE LOAD ALLOCATIONS

Permit Parameter	Waste Load Allocation (lbs/yr)	Concentration at 54 MGD (mg/l)	Concentration at 58 MGD (mg/l)
Total Nitrogen (Annual)	493,381	3.00	2.79
Total Phosphorus (Annual)	29,603	0.18	0.17
Total Suspended Solids (Monthly)	N/A	6.0	5.5

Anticipated scope: perform a loadings study to evaluate data, assess, and develop plans for potential CIP projects



Overview of major electrical systems

BEERER R

Switchgear, transformers, and MCC installed early 2000s

Switchgear, transformers, and MCC installed early 2020s

Switchgear, transformers, MCC, and generator installed 2010s

Main switchgear and transformers installed early 2000s

Switchgear, transformers, and MCC installed early 2000s

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MCCs and switchgear installed 2010

MCCs installed 1980s

Switchgear and transformers installed 2005

MCCs installed 2005

177

AlexRenew is currently assessing HVAC systems campus wide and at all pumping stations

> Environmental Center

Nutrient Management Facility

Not shown for clarity:

Underground tunnels
 Tunnel access buildings



Current AlexRenew actions

- Board adopted policy in December 2023
- Performing assessment on existing infrastructure, programs, and projects to identify potential disproportionate impacts

Support needed

- Implement assessment outcomes into organization
- Assist in the development and/or implementation of identified strategies, guidance, trainings, and programs

ENVIRONMENTAL JUSTICE





ENVIRONMENTAL SUSTAINABILITY SUPPORT

2024-2029 Strategic Plan Objectives	FY2025 Task	Metric
Integrate sustainability into infrastructure investments and operations	 Develop organizational-wide sustainability plan Develop requirements for designers (consultants) to perform baseline energy consumption assessment prior to executing upgrade projects 	CompletedDraft by 6/30/2025
	 Update sustainable purchasing policy Enhance recycling and e-waste disposal practices 	Finalize by 6/30/2025e-Waste pickup event 4/2025
Strive toward net carbon	Improve accuracy of greenhouse gas inventory tool	 Update GHG emissions inventory tool by 6/30/25
	Conduct power monitoring pilot study	 Install power monitors on IPS pumps by 2/28/25; determine whether to implement for other plant processes systems by 6/30/25
	 Investigate opportunities for onsite renewable energy generation 	 Implement CHP system onsite; investigate opportunities to increase solar power by 6/30/2025



— DRAFT PROFESSIONAL SERVICES CONTRACT TERMS AND CONDITIONS

Format

- Based on Engineer's Joint Contract Documents Committee (EJCDC) Agreement Between Owner and Engineer for Professional Services – Task Order Edition E-505
- To be issued via Addendum

Professional services agreement

- 1 year term, with option for 3 additional years
- Task order pricing:
 - Rates established with each individual task order and remain for duration of individual task order
 - Multiplier based on an audited overhead rate
- Invoicing and payments
- Insurance requirements



— DRAFT EXAMPLE TASK ORDER PRICE

Name	Role	Hours	Labor Rate	Multiplier*	Labor Cost
Name 1	Project Manager	25	\$200	2.5	\$12,500
Name 2	Lead Wastewater Engineer	50	\$150	2.5	\$18,750
Name 3	Engineer	100	\$100	2.5	\$25,000
				Labor Subtotal	\$56,250

Other Direct Costs

Item	Cost
Travel	\$5,000
ODC Subtotal	\$5,000
Total Task Order Price	\$61,250

*Multiplier = Profit + FAR Indirect Cost Rate (Established and set as part of Contract)



SCHEDULE OF UPCOMING INITIATIVES

Initiative		2024													2025												2026											
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Construction Management Services								•	RF	Ρ	N	ITP																										
Engineering Basic Ordering Agreements									•	RF	P 1P 1	L: T	hick	NTE	⊂ ◆ ing		G	VP 2	2: M	ixer	5. ØI	ravit	v			GM	IP 3	: Drv	ing a	and								
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Preliminary and Primary Systems Upgrade						1	NTP	•									•	Tan	L. ks, V	Veir	Ho	use		2		GM	IP 2	: Bui	ldin	g A			GΜ	P 3:	Bui	ldin	g K	
Environmental Center 5th Floor Buildout								IΡÇ	•	ITB	•																											
Centrate Pretreatment												IPÇ	2	ΙТВ																								
Tertiary Systems Upgrade															RFC	2 •								N														
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RFP-25-001 PROCUREMENT TIMELINE





RFP-25-001 EVALUATION CRITERIA

Team Organization and Key Personnel

- Overall organizational structure
- Organizational structure specific to Tertiary System Upgrade as Owner's Advisor
- Narrative on Respondent's ability and capacity to perform
- Key Personnel and experience
 - Project Manager
 - Lead Wastewater Engineer
 - Tertiary Systems Upgrade Project
 Owner's Advisor Lead
 - Sustainability Lead

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AlexRenew

Capital Improvement Program
 (CIP) Specialist

60 points

Approach and Related Experience

- Approach to Delivering:
 - Wastewater treatment plant design services
 - One (1) HVAC system upgrade example project
 - One (1) electrical system upgrade example project
 - One (1) general experience example project
 - OA services with one (1) example project
 - Sustainability assistance with one (1) example project
 - CIP planning support with one (1) example project
 - **35 points**



Environmental Justice Implementation

 Narrative of Respondents experience with one example project

5 points

PROCUREMENT NEXT STEPS

- September 17. Last day to submit questions
- September 24. Last day for addenda
- October 1.Proposal submission electronically by 2:00PMto BOA-25-001@alexrenew.com





To learn more, visit www.alexrenew.com