Welcome to the JEA Awards Meeting

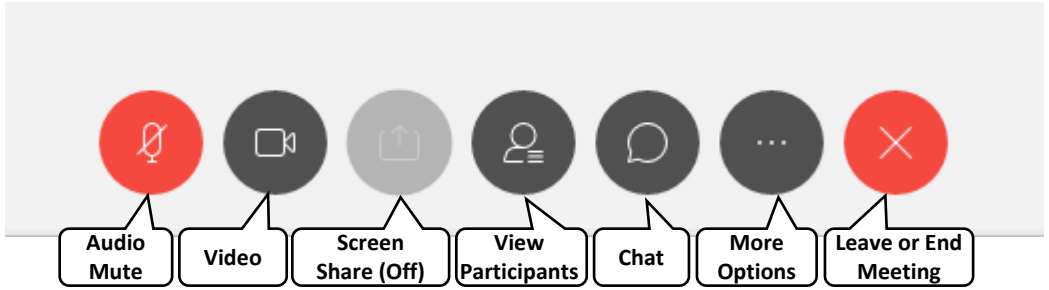
You have been joined to the meeting with your **audio muted** by default.

We will unmute your lines during the public comment time and provide opportunity for you to speak.

During the meeting, interested persons can also email Cecil Camacho at camac@jea.com to submit public comments to be read during the meeting regarding any matter on the agenda for consideration. Public comments by e-mail must be received no later than 9:00 a.m. to be read during the public comment portion of the meeting.

Please contact Cecil Camacho by telephone at (904) 665-6823 or by email at camac@jea.com if you experience any technical difficulties during the meeting.

Below is a summary of the meeting controls you will see at the bottom of your screen.



AWARDS COMMITTEE AGENDA

DATE: **Thursday, January 05, 2023**

TIME: **10:00 A.M.**

PLACE: **JEA, Customer Center, Bid Office, 1st Floor, 21 West Church Street, Jacksonville, FL 32202 OR**
WebEx/Teleconference
WebEx Meeting Number (access code): 2309 526 2709
WebEx Password: cQMmJPHA823

Public Comments:

Awards:

1. Approval of the minutes from the last meeting(12/15/2022)

2. 1410841446 – Request approval to award a contract to Breaking Ground Contracting Company for construction services for the Arlington East WRF Warehouse in the amount of $1,169,965.00, subject to the availability of lawfully appropriated funds.

3. **DEFERED -** Request awards committee approval to award a five (5) year contract to JD Power and Associates for customer satisfaction benchmark studies in the amount of $373,240.00, subject to the availability of lawfully appropriated funds.

4. Request approval to award a contract to STV, Inc. for professional engineering services for the Harts Road Bridge Replacement Utility Improvements project in the amount of $199,782.63, subject to the availability of lawfully appropriated funds.

5. Request approval to award a renewal to Murphy Pipeline Contractors, LLC for pipe bursting in the amount of $4,200,000.00, for a new total not-to-exceed amount of $13,449,388.50, subject to the availability of lawfully approved funds.

6. Request approval to award a contract increase to CDM Smith Inc. for additional engineering and consulting for the RiverTown Water Treatment Plant Project in the amount of $29,025.00, for a new not-to-exceed amount of $2,210,700.00, subject to the availability of lawfully appropriated funds.

7. Request approval for a one (1) year contract renewal to Trees, Inc. for vegetation management services in the amount of $6,425,000.00, for a new not-to-exceed amount of $37,647,514.94, subject to the availability of lawfully appropriated funds.

8. 1410901246– Request approval to award contracts to Complete Services Well Drilling, Inc. ($500,000.00) and AC Schultes of Florida dba Rowe Drilling ($100,000.00) for continuing services for the Well Services – Repair and Maintenance in the amount of $600,000.00, subject to the availability of lawfully appropriated funds.

9. Request approval for a contract increase to IMC Fire Protection, LLC for fire protection inspections, testing and maintenance services in the amount of $785,101.68, for a new not-to-exceed amount of $1,282,032.93, subject to the availability of lawfully appropriated funds.

10. Request approval to award an amendment for an increase to the contract with Orlando Freightliner for the purchase of vehicles for JEA's FY24 heavy duty fleet capital requirements in the amount of $1,014,174.00, for a total not-to-exceed amount of $4,060,646.17, subject to the availability of lawfully appropriated funds.

11. 1410795646 - Request approval to award a contract to Prolec - GE Waukesha Inc for the supply of two (2), 138kV / 27.6kV X 13.8 kV Transformers for Eagle Substation in the amount of $3,424,480.00, subject to the availability of lawfully approved funds.

12. Request approval to award Amendment #8 to General Electric International for funding of the inspections and maintenance and repair services in the amount of $43,153,955.12, for the new not-to-exceed amount of $329,872,724.12, subject to the availability of lawfully appropriated funds.

13. Request approval to award a contract to RPM Solutions, LLC for crushing services for JEA in the amount of $860,000.00, subject to the availability of lawfully appropriated funds.

14. Request approval to award a contract increase to Black & Veatch Management Consulting LLC for IRP and DER services in the amount of $701,356.80, for a new total not-to-exceed amount of $2,577,288.00, subject to the availability of lawfully approved funds.

Informational Items: N/A

Open Discussion: N/A

Public Notice: N/A

General Business: N/A

SPECIAL NOTES: Copies of the above items are available in JEA Procurement, if needed for review. If a person decides to appeal any decision made by the Awards Committee, with respect to any matter considered at this meeting, that person will need a record of the proceedings, and, for such purpose, needs to ensure that a verbatim record of the proceedings is made, which record includes the evidence and testimony upon which the appeal is to be based. If you have a disability that requires reasonable accommodations to participate in the above meeting, please call 665-8625 by 8:30 a.m. the day before the meeting and we will provide reasonable assistance for you.

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Award#	Type of Award	Business Unit	Estimated/ Budgeted Amount	Amount	Awardee	Term	Summary
1	Minutes	N/A	N/A	N/A	N/A	N/A	Approval of minutes from the 12/15/2022 meeting.
2	INVITATION FOR BID (IFB) (3) BIDDERS	McElroy	$710,000.00	$1,169,965.00	BREAKING GROUND CONTRACTING COMPANY	Project Completion (Expected: August 2023)	**Arlington East WRF Warehouse** JEA is soliciting Bids for construction services from contractors (hereinafter referred to as "Company") for Arlington East Water Reclamation Facility (WRF) Warehouse located at 1555 Millcoe Rd, Jacksonville, Florida. The contract will include construction of a 3600 square foot (SF) warehouse, currently known as building 10, new asphalt pavement driveway, and required drainage and storm water improvements as needed to accommodate new parking and warehouse. The bid for the construction cost of this project without the Supplemental Work Allowance is $1,069,965.00, which is approximately fifty-one percent (51%) higher than the business unit estimate of $710,000.00. The increase is attributed primarily due to the project estimate being completed prior to the engineering design which began in January of 2022, City of Jacksonville requirements being added during permitting and material price escalation. A Supplemental Work Allowance (SWA) in the amount of $100,000.00 was included for an award total of $1,169,965.00. The bid was reviewed by JEA and was deemed reasonable. A budget trend was completed and approved for the additional funds. A not-to-exceed amount of $1,169,965.00.
3 - Defer	Defer	Defer	Defer	Defer	Defer	Defer	Defer
4	JOINT PROJECT	Melendez	$218,192.00	$199,782.63	STV INC.	Project Completion (Expected: December 2025)	**COJ Harts Rd Bridge Replacement** JEA has existing water and sewer mains along Harts Rd and on the bridge over Broward River. JEA will need to relocate some of the existing utilities, as well as install new utilities to avoid conflicts with the COJ's new piles for bridge

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							support. The project will relocate about 250 LF of 16" water main, and approximately 750' feet each of 6", 14" and 20" sewer force main. JEA will be permitting the utilities through the Florida Department of Environmental Protection, as well as the COJ for right of way permits. This contract will cover the engineering portion of the work. STV Inc. was selected by the COJ through their normal RFQ process and is the EOR for the COJ bridge/road design. STV Inc. will perform both the COJ and JEA design work so there is a single point of responsibility for the design, and as one design changes, the other design will be adjusted to accommodate the other and reduce the conflict potential. JEA's utility construction work will be included with COJ's bid and constructed by COJ's contractor providing for a single point of responsibility during construction. Another award for the construction work will be brought to the Awards Committee to approve the bid results for JEA's portion of the work once that determination has been made. The award amount of $199,782.63 is approximately eight percent (8%) lower than the estimate and deemed reasonable when compared to past projects. This is a joint project with COJ and the construction costs will not be reimbursed by the COJ. The hourly rates negotiated by COJ are comparable to recent JEA engineering awards for projects of this type and deemed reasonable. A not-to-exceed amount of $199,782.63.
5	CONTRACT RENEWAL	Vu	$4,200,000.00	$4,200,000.00	MURPHY PIPELINE CONTRACTORS, LLC	Three (3) Years w/ Two (2) – 1 Yr. Renewals	**<u>Pipe Bursting Contract</u>** The scope of work includes providing trenchless rehabilitation to the gravity sewer system through the Pipe Bursting method. This work will be performed throughout the JEA service area. This award request is asking for approval to award the first one-year renewal for pipe bursting services by Murphy Pipeline Contractors. A unit price increase has been allowed for this renewal period. JEA compared the new unit prices to recent bids for unit prices at other municipal utilities in Florida,

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							and the new unit prices were deemed reasonable. A workbook with the updated unit prices is attached to this request, and the unit prices will be used for task orders issued under this contract renewal. A new not-to-exceed amount of $13,449,388.50.
6	CONTRACT INCREASE	Melendez	N/A	$29,025.00	CDM SMITH INC.	Project Completion (Expected: November 2023)	**Engineering Services for the Rivertown Water Treatment Plant Project** The scope of engineering services for this project includes preliminary design, final detailed design, permitting support, engineering services during construction and engineering services during startup of the Rivertown Water Treatment Plant (WTP) Project. The project includes a new water treatment plant including two production wells, provisions for an optional third well as a backup well, well head assemblies, raw water pipelines, ground storage tank with tray aerators and powered ventilators for sulfide treatment, high service pump building, high service pump system with five (5) variable-frequency drive controlled high service pumps of various capacities, sodium hypochlorite storage and injection system, electrical power and controls, emergency generator, access roads, security and fire alarm features, storm water management features, SCADA system and associated features. The Rivertown area, which is located in JEA's South Grid, is undergoing significant population and housing growth. The water demand from this growth will exceed the capacity of the existing water treatment and distribution facilities. Therefore, the Rivertown WTP Project is being implemented to provide additional potable water treatment and production/distribution capacity in JEA's South Grid including the Rivertown area of St. Johns County. Originally construction for the new Rivertown WTP was to be substantially complete in January 2023. Construction has been delayed due to raw material and equipment un-availability. This delay will cause the plant to not be operational during the typical high water demand season. To ensure water availability in this service area JEA has developed

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							an interim plan to increase pressure and flow in this area until the plant is fully operational. For this interim plan to proceed JEA must submit modified permits from FDEP and St. Johns County. This contract increase funds the tasks listed below for CDM Smith Inc. to assist JEA in implementing this plan. • FDEP Minor Modification Permit Package that addresses the partial start-up of the Rivertown WTP and temporary booster pump station at 1310 Roberts Road • St. Johns County Building Permit Phasing Plan that addresses the evolution of the site from temporary measures needed to produce water through final permanent infrastructure as originally planned for the site • On-going coordination and bi-weekly conference calls with OWNER and Contractor to discuss construction progress and alignment and interfacing with partial plant start-up activities and scheduling • As-needed technical assistance and support required by the OWNER to develop, coordinate and execute the interim start-up plans and additional regulatory coordination A new not-to-exceed amount of $2,210,700.00.
7	CONTRACT RENEWAL	Erixton	$6,425,000.00	$6,425,000.00	TREES, INC.	Five (5) Years w/ One (1) - 1 Yr. Renewals	**Vegetation Management** The purpose of this solicitation is to establish pricing for vegetation management services for JEA and Tampa Electric Company (TECO). The work to be performed by the Company includes all labor, supervision, materials, tools and equipment, and reporting requirements as necessary for performing the work. This request is to execute a one (1) year renewal and add $6,425,000.00 in funds for O&M and Capital projects. The original award amount was based on historical usage and budget estimates available at the time of award. Contract price adjustments have been requested by the supplier

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							and will be implemented as a part of the renewal execution. JEA intends start a new bid process in August 2023. Request approval for a one (1) year contract renewal to Trees, Inc. for vegetation management services in the amount of $6,425,000.00, for a new not-to-exceed amount of $37,647,514.94, subject to the availability of lawfully appropriated funds.
8	INVITATION FOR BID (IFB) (2) BIDDERS	Vu	$600,000.00	$500,000.00 $100,000.00	COMPLETE SERVICES WELL DRILLING, INC AC SCHULTES OF FLORIDA DBA ROWE DRILLING	Three (3) Years w/Two (2) - 1 Yr. Renewals	**Well Services – Repair and Maintenance** The scope of work includes providing labor, materials and services necessary to support operational reliability and disaster recovery of JEA water wells and water treatment plants. The task(s) may include, but not limited to: Emergency mobilization, well pump repairs, removal and installation of well pumps, draw down testing, video logging wells, geophysical logging wells, on-site pump evaluation, and well chlorination and flushing. The purpose of this solicitation is to award a primary and secondary contractor to provide operational reliability and disaster recovery of JEA water wells and water treatment plants. Having the contract in place will expedite well repairs, bringing critical water supply components back to service in the shortest time possible. The basis for this award budget estimate is the historical spend for the current JEA Well Services – Repair and Maintenance contract. The intent is to balance the workload between the contractors approximately eighty (80) percent to the lowest bidder and twenty (20) percent to the next lowest bidder. However, work may be assigned on the basis of performance, expertise, hourly rates or lowest lump sum bid price for defined scopes of work, as well as workload constraints by the primary contractor. Request approval to award contracts to Complete Services Well Drilling, Inc. ($500,000.00) and AC Schultes of Florida dba Rowe Drilling ($100,000.00) for continuing services for the Well Services – Repair and Maintenance in the amount

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							of $600,000.00, subject to the availability of lawfully appropriated funds.
9	CONTRACT INCREASE	Erixton	$785,101.68	$785,101.68 ($785,101.68)	IMC FIRE PROTECTION LLC AEGIS FIRE & INTEGRATED SERVICES	Five (5) Years w/ One (1) - 1 Yr. Renewals	**Electric Plant Fire Protection System Inspection, Testing & Maintenance Services** The purpose of this Invitation to Negotiate (the "ITN") is to evaluate and select a contractor that can provide electric plant fire protection services for JEA (also referred to as the "Work" or "Services"). The scope of this contract is to secure the services of a qualified contractor which will provide inspection, testing and maintenance and repairs ("ITM") for fire alarm, fire sprinkler, CO2, Foam, Halon, and FM200 systems installed at their existing electric plants located throughout Duval County in Jacksonville, Florida. This request is to add the remaining unencumbered funds from the Summit Fire & Securities, LLC contract, to the IMC Fire Protection, LLC contract cap to support continued use of the contract through the original term. This contract increase amount is $785,101.68. The original award amount was based on historical usage and budget estimates available at the time of award, the original budget estimate and forecast is attached as backup. The Contract has CPI adjustments allowable at contract anniversary upon request by the supplier. Request approval for a contract increase to IMC Fire Protection, LLC for fire protection inspections, testing and maintenance services in the amount of $785,101.68, for a new not-to-exceed amount of $1,282,032.93, subject to the availability of lawfully appropriated funds.
10	CONTRACT AMENDMENT	McElroy	$1,092,000.00	$1,014,174.00	ORLANDO FREIGHTLINER	Project Completion (June 2024 Estimate)	**JEA Heavy Duty Vehicle Procurement Contract Amendment** The purpose of this contract amendment is to modify the original JEA Heavy Duty Vehicle Procurement Acquisition Award and subsequent amendments' amounts. The purpose of the original Invitation to Negotiate (the "ITN") was to solicit pricing for the purchase of eleven (11) heavy duty vehicles for JEA's FY22 and FY23 requirements.

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							This contract amendment is to purchase an additional six (6) 19cyd dump trucks for FY24. The four (4) dump trucks are being bought for FY24 Water expansion and two (2) dump trucks are being bought for Electric replacement. Originally bid and approved by the Awards Committee on 02/03/2022 for $2,272,027.17. Award was amended and increased by $320,548.00 on March 3, 2022, to double the amount of Group Four (4) assets, 5 Ton - 19 Cubic Yard Dump Trucks. A manufacturer surcharge of $3,800.00 per vehicle for the original nine (9) vehicles (total of $34,200.00) was added on 05/31/2022 at the request of Orlando Freightliner in lieu of utilizing the PPI adjustment as defined in the solicitation. The contract was further amended and increased on 06/30/2022 based on JEA Electric scheduled replacement of three (3) 3-Ton Cargo Reel Trucks for FY23. JEA is requesting this contract amendment to purchase an additional six (6) 19cyd dump trucks for FY24. The four (4) dump trucks are being bought as part of FY24 Water expansion and two (2) dump trucks are being bought for FY24 Electric replacement. Fleet had budgeted $182,000.00 per truck based on average increases of around 13.6% increases they have seen in heavy duty trucks over the last two (2) years. Orlando Freightliner offered slots to build these trucks in Q4 of FY23, with a price increase of only 3% from this year's purchase price. It should be noted that this 3% increase is substantially lower than the 13.6% increase noted above that we have seen in heavy duty vehicles and lower than the 7.4% annual increase in PPI recorded for November and deemed to be in the best interest of JEA to accept in lieu of a new bid. Request approval to award an amendment for an increase to the contract with Orlando Freightliner for the purchase of vehicles for JEA's FY24 heavy duty fleet capital requirements in the amount of $1,014,174.00, for a total not-to-exceed amount of

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							$4,060,646.17, subject to the availability of lawfully appropriated funds.
11	REQUEST FOR PROPOSAL (RFP) (3) PROPOSALS	Melendez	3,500,000.00	$3,424,480.00	PROLEC – GE WAUKESHA INC	Project Completion (Estimate 5/15/2025)	**138kV / 27.6kV X 13.8 kV Transformers for Eagle Substation** JEA is soliciting Proposals for the equipment design, fabrication, and delivery of two (2) one 138kV / 27.6kV X 13.8 kV transformer for the Eagle Substation (the "Work" or "Services"). The award amount is 2.2% below the Pre-Proposal Budget Estimate. JEA negotiated a price adjustment based on market indices for 50% of the price to be adjusted through release to manufacture. Price is deemed reasonable. 1410795646 - Request approval to award a contract to Prolec - GE Waukesha Inc for the supply of two (2), 138kV / 27.6kV X 13.8 kV Transformers for Eagle Substation in the amount of $3,424,480.00, subject to the availability of lawfully approved funds.
12	CONTRACT INCREASE	Melendez	$43,153,955.12	$43,153,955.12	GENERAL ELECTRIC INTERNATIONAL	Term 28.5 Years (End Date 12/31/2028)	GE Long Term Service Agreement (LTSA) – Inspection, Maintenance and Repair Services This request covers Amendment #8 to provide additional funding for the General Electric International Long-Term Services Agreement (LTSA). The LTSA provides for Inspection, Maintenance and Repair of JEA's fleet of General Electric combustion turbine fleet at Brandy Branch Generating Station, Kennedy Generating Station and Greenland Energy Center. The services include, but are not limited to: This request is to add funds for O&M and Capital projects in the amount of $43,153,955.12, to allow continued use and is intended to support planned inspections and outage support through the term of the contract. Overhaul and major repair work is not contemplated in this increase. The original award amount was based on available funding and estimates available at the time of award. The inspections are subject to 2.5% annual price adjustments allowable at contract anniversary.

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							Request approval to award Amendment #8 to General Electric International for funding of the inspections and maintenance and repair services in the amount of $43,153,955.12, for the new not-to-exceed amount of $329,872,724.12, subject to the availability of lawfully appropriated funds.
13	EMERGENCY	Erixton	$860,000.00	$860,000.00	RPM SOLUTION LLC	Project Completion (06/30/2023)	**Limestone Crushing Services** The scope of work is to process up to 100,000 tons of oversized (3") limestone down to ¾" using temporary crusher plant and material handling equipment. Oversized limestone to be moved from the JEA limestone storage building to the processing plant, processed, and then returned to the limestone storage building. Some amount of material may be stockpiled outside of the building on a day-to-day basis depending on logistics. Material to be moved utilizing loaders and other appropriate equipment. JEA did get some competitive bids to evaluate pricing, this bidding was done informally (not formally and posted publicly), due to close proximity of the need date and general industry issues with acquiring competent temporary labor, as such, this award is being processed as an emergency procurement pursuant to the JEA Purchasing Code section 3-113 Emergency Procurements - (b) an interruption in the delivery of an essential governmental service or the development of a circumstance causing a threatened curtailment, diminution, or termination of an essential service, provided that Emergency Procurements shall be made with as much competition as practicable under the circumstances. A written determination of the basis for the Emergency and for the selection of the particular vendor shall be included in the Procurement file. The Emergency form is attached as backup. Request approval to award a contract to RPM Solutions, LLC for crushing services for JEA in the amount of $860,000.00, subject to the availability of lawfully appropriated funds.
14	CONTRACT INCREASE	Melendez	$701,504.00	$2,577,288.00	BLACK & VEATCH MANAGEMENT CONSULTING	Project Completion (Expected: 12/31/2023)	**Integrated Resource Planning for Electric Generation Planning**

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							JEA is seeking the services of an Electric Generation Integrated Resource Planning (IRP) Services provider. The IRP shall provide a near-term to long-term strategic recommendation, with alternatives that address the following concerns: • System reliability, system balancing capability, and adequacy of resources (i.e., FAC Rule: 25-6.035) • Retirement and replacement for aging generating plants • Integration of planned and future utility-scale solar facilities, and system ramping requirements. • Land requirements and site locations for all new system additions • Increased customer-owned Distributed Energy Resources (DER), Demand-side management (DSM), and Energy Efficiency (EE) adoption • Increased Electrification adoption • Effects of other emerging supply-side resource technologies • Industry objective of lowering carbon emissions • Potential legislative and/or regulatory mandates on carbon emissions, environmental quality, and renewable goals This award request is asking for approval to award a contract increase of $701,356.80 for the increase scope of services from refining the IRP project (described in detail in the IRP and DER proposals from Black & Veatch), which includes: • Initiation of the DER • Workshops and Stakeholder meetings with the development of comprehensive public involvement plan • External website develop development & social media maintenance support • Scenario and forecast presentations • Modelling and plan results presentations • Transmission analysis • Various Fuels market forecast and impacts Rates are fixed for the project estimated to be completed in December of 2023.

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							Request approval to award a contract increase to Black & Veatch Management Consulting LLC for IRP and DER services in the amount of $701,356.80, for a new total not-to-exceed amount of $2,577,288.00, subject to the availability of lawfully approved funds.
Total Award				**$64,026,909.75**			

JEA AWARDS COMMITTEE
DECEMBER 15, 2022, MEETING MINUTES

The JEA procurement Awards Committee met on December 15, 2022, in person with a WebEx option.

WebEx Meeting Number (access code): 2309 526 2709
WebEx Password: cQMmJPHA823

Members in attendance were Heather Beard, Manager of Procurement Contracts for Jenny McCollum, Chief Procurement Officer, Stephen Datz as Chairperson, Stephanie Nealy as Budget Representative, Rebecca Lavie as Office of General Counsel Representative; Sean Conner for Hai Vu, Laura Schepis (onsite), Margaret Limbaugh for Ricky Erixton (onsite), and Joe Orfano (onsite), Unless otherwise indicated, all attendees were via WebEx.

Chair Datz called the meeting to order at 10:00 a.m., introduced the Awards Committee Members, and confirmed that there was an in-person quorum of the Committee membership present.

Public Comments:
Chair Datz recognized the public comment speaking period and opened the meeting floor to public comments. No public comments were provided by email, phone, or videoconference.

Awards:

1. Approval of the minutes from the last meeting (12/08/2022). Chair Datz verbally presented the Committee Members the proposed December 08, 2022, minutes as presented.

   MOTION: Laura Schepis made a motion to approve the December 08, 2022, minutes (Award Item 1). The motion was seconded by Joe Orfano and approved unanimously by the Awards Committee (5-0).

   The Committee Members reviewed and discussed the following Awards Items 2 –11.

2. Request approval of a ratification of the contract Termination for Convenience of JEA Contract No. 195357 with The Kenton Group, Inc. dba Baldwin's Quality Plumbing and suspension of the Kenton Group's bidding privileges in accordance with the recommendation of the COJ Office of the Ombudsman.

   MOTION: Joe Orfano made a motion to approve Award Item 2 as presented in the committee packet. The motion was seconded by Laura Schepis and approved unanimously by the Awards Committee (5-0).

3. 1410951046 - Request approval to award a contract to CDW for Dell Equipment and Support in the amount of $1,004,264.95, subject to the availability of lawfully appropriated funds.

   MOTION: Sean Conner made a motion to approve Award Item 3 as presented in the committee packet. The motion was seconded by Laura Schepis and approved unanimously by the Awards Committee (5-0).

4. Request approval to award contract to Fisher Scientific Company, LLC for the purchase of laboratory supplies and equipment in the amount of $75,000.00, for a new not to exceed amount of $501,217.65, subject to lawfully appropriated funds.

   MOTION: Laura Schepis made a motion to approve Award Item 4 as presented in the committee packet. The motion was seconded by Joe Orfano and approved unanimously by the Awards Committee (5-0).

5. Request approval to award a ten (10) month single source award to Oracle America Inc. for maintenance and support services for Oracle E-Business Suite (EBS), Oracle Databases, Middleware and Oracle Engineered hardware systems in the amount of $2,460,848.76, subject to the availability of lawfully appropriated funds.

MOTION: Sean Conner made a motion to approve Award Item 5 as presented in the committee packet. The motion was seconded by Laura Schepis and approved unanimously by the Awards Committee (5-0).

6. Request approval to award a contract to Weeks Auction Company LLC for JEA Fleet Auctioneer Services with an estimated net revenue of $3,358,501.83.

   MOTION: Laura Schepis made a motion to approve Award Item 6 as presented in the committee packet. The motion was seconded by Joe Orfano and approved unanimously by the Awards Committee (5-0).

7. Request approval to award a contract increase to The Haskell Company for construction services for CMAR Services for the Greenland WRF project in the amount of $2,373,916.00, for a new not-to-exceed amount of $120,928,366.01, subject to the availability of lawfully appropriated funds.

   MOTION: Laura Schepis made a motion to approve Award Item 7 as presented in the committee packet. The motion was seconded by Joe Orfano and approved unanimously by the Awards Committee (5-0).

8. Request approval to award contracts to Ferguson Waterworks in the amount of $9,561,000.88 and Fortiline, Inc. in the amount of $4,208,345.59 for Water and Wastewater inventory items carried in JEA's inventory stock and for Capital Project Items, for a total not to exceed amount of $13,769,346.47 subject to the availability of lawfully appropriated funds.

   MOTION: Sean Conner made a motion to approve Award Item 8 as presented in the committee packet. The motion was seconded by Joe Orfano and approved unanimously by the Awards Committee (5-0).

9. 1410844646– Request approval to award a contract to Emtec, Inc. for Installation Services for Provision of Managed Services for Service Desk, Help Desk, Desktop Support, and Network Operations Center in the amount of $5,539,000.00, subject to the availability of lawfully appropriated funds.

   MOTION: Laura Schepis made a motion to approve Award Item 9 as presented in the committee packet. The motion was seconded by Sean Conner and approved unanimously by the Awards Committee (5-0).

10. 1410860046 - Request approval to award a contract to Universal Service, Inc. for Continuing Services for Industrial Cleaning at JEA Wastewater Treatment Facilities in the amount of $999,450.00, subject to the availability of lawfully appropriated funds

    MOTION: Joe Orfano made a motion to approve Award Item 10 as presented in the committee packet. The motion was seconded by Margaret Limbaugh and approved unanimously by the Awards Committee (5-0).

11. Request approval to award a renewal to Aggreko LLC., for the generator rental agreement in the amount of $726,525.18 for a new not-to-exceed amount of $2,906,100.72, subject to the availability of lawfully appropriated funds.

    MOTION: Laura Schepis made a motion to approve Award Item 11 as presented in the committee packet. The motion was seconded by Joe Orfano and approved unanimously by the Awards Committee (5-0).

Informational Item:

No informational items were presented to the Awards Committee.

Ratifications:

Award #2 Jammes Rd. Water Main Installation was presented to the Awards Committee.

Public Comments:

No additional public comment speaking period was taken.

Adjournment:

Chair Datz adjourned the meeting at 10:24 a.m.

NOTE: These minutes provide a brief summary only of the Awards Committee meeting. For additional detail regarding the content of these minutes or discussions during the meeting, please review the meeting recording. The recording of this meeting as well as other relevant documents can be found at the link below: https://www.jea.com/About/Procurement/Awards_Meeting_Agendas_and_Minutes/

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 2

Formal Bid and Award System

Award #2 January 5, 2023

Type of Award Request: INVITATION FOR BID (IFB)
Request #: 583
Requestor Name: Breadon, William A. - Project Administrator Construction
Requestor Phone: (904) 665-4285
Solicitation Title: Arlington East WRF Warehouse
Project Number: 22236015 / 8007710
Project Location: JEA
Funds: Capital
Business Unit Estimate: $710,000.00

Scope of Work:
JEA is soliciting Bids for construction services from contractors (hereinafter referred to as "Company") for Arlington East Water Reclamation Facility (WRF) Warehouse located at 1555 Millcoe Rd, Jacksonville, Florida. The contract will include construction of a 3600 square foot (SF) warehouse, currently known as building 10, new asphalt pavement driveway, and required drainage and storm water improvements as needed to accommodate new parking and warehouse.

JEA IFB/RFP/State/City/GSA#: 1410841446
Purchasing Agent: Selders, Elaine
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Amount
BREAKING GROUND CONTRACTING COMPANY	Mary Tappouni	mary@breakinggroundcontracting.com	4218 Highway Avenue Jacksonville, FL 32254	$1,169,965.00

Amount for entire term of Contract/PO: $1,169,965.00
Award Amount for remainder of this FY: $1,169,965.00
Length of Contract/PO Term: Project Completion
Begin Date: 01/26/2023
End Date: Project Completion (Expected: August 2023)
JSEB Requirement: Five Percent (5%) Requirement
Comments on JSEB Requirements:
Breaking Ground Contracting Company is a JSEB.

BIDDERS:

Name	Amount including SWA
BREAKING GROUND CONTRACTING COMPANY	$1,169,965.00
C C BORDEN CONSTRUCTION, INC.	$1,336,984.00
FORESIGHT CONSTRUCTION GROUP, INC.	$1,557,000.00

Background/Recommendations:

Advertised on 08/15/2022. Five (5) prime contractors attended the mandatory pre-bid meeting held on 08/22/2022. The due date was put on hold due to the need for drawing modifications. At Bid opening on 12/06/2022, JEA received three (3) Bids. Breaking Ground Contracting Company is the lowest responsive and responsible Bidder. A copy of the Bid Form is attached as backup.

The bid for the construction cost of this project without the Supplemental Work Allowance is $1,069,965.00, which is approximately fifty-one percent (51%) higher than the business unit estimate of $710,000.00. The increase is attributed primarily due to the project estimate being completed prior to the engineering design which began in January of 2022, City of Jacksonville requirements being added during permitting and material price escalation. A Supplemental Work Allowance (SWA) in the amount of $100,000.00 was included for an award total of $1,169,965.00. The bid was reviewed by JEA and was deemed reasonable. A budget trend was completed and approved for the additional funds.

1410841446 – Request approval to award a contract to Breaking Ground Contracting Company for construction services for the Arlington East WRF Warehouse in the amount of $1,169,965.00, subject to the availability of lawfully appropriated funds.

Manager: Poteet, Matthew D. - Manager Facilities Construction & Planning
Director: Brunell, Baley L. - Dir Facilities & Fleet Services
VP: McElroy, Alan D. - VP Supply Chain & Operations Support
Chief: Phillips, Ted B. - Chief Financial Officer

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

1410841446 APPENDIX B - BID FORM
ARLINGTON EAST WATER RECLAMATION FACILITLY WAREHOUSE

Submit the Bid electronically as described in section 1.1.3, 1.1.4, 1.1.5. of the Solicitation.

Company Name: Breaking Ground Contracting Company

Company's Address: 4218 Highway Avenue, Jacksonville, FL 32254

License Number: CGC060008

Phone Number: 904-388-1350 FAX No: 904-388-3440 Email Address: mary@breakinggroundcontracting.com

BID SECURITY REQUIREMENTS
- ☐ None required
- ☒ Certified Check or Bond (Five Percent (5%)

TERM OF CONTRACT
- ☐ One Time Purchase
- ☐ Annual Requirements
- ☒ Other, Specify - Project Completion

SAMPLE REQUIREMENTS
- ☒ None required
- ☐ Samples required prior to Bid Opening
- ☐ Samples may be required subsequent to Bid Opening

SECTION 255.05, FLORIDA STATUTES CONTRACT BOND
- ☐ None required
- ☒ Bond required 100% of Bid Award

QUANTITIES
- ☐ Quantities indicated are exacting
- ☒ Quantities indicated reflect the approximate quantities to be purchased Throughout the Contract period and are subject to fluctuation in accordance with actual requirements.

INSURANCE REQUIREMENTS

Insurance required

PAYMENT DISCOUNTS	
☐ 1% 20, net 30 ☐ 2% 10, net 30 ☐ Other _____ ☒ None Offered	

ENTER YOUR BID FOR SOLICITATION 1410841446	TOTAL BID PRICE
Total Bid Price for the Project (transfer total from Bid Workbook)	**$ 1,069,965.00**
Supplemental Work Allowance (SWA)	**$100,000.00**
Total Bid Price for the Project Including the SWA	**$1,169,965.00**

☑ **I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is".**

BIDDER CERTIFICATION

By submitting this Bid, the Bidder certifies that it has read and reviewed all of the documents pertaining to this Solicitation, that the person signing below is an authorized representative of the Bidding Company, that the Company is legally authorized to do business in the State of Florida, and that the Company maintains in active status an appropriate contractor's license for the work (if applicable). The Bidder also certifies that it complies with all sections (including but not limited to Conflict Of Interest and Ethics) of this Solicitation.

We have received addenda One (1) through Seven (7)

Mary G. Tappouni
Handwritten Signature of Authorized Officer of Company or Agent

December 6, 2022
Date

Mary G. Tappouni, President
Printed Name and Title

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 4

Formal Bid and Award System

Award #4 January 5, 2023

Type of Award Request: JOINT PROJECT
Requestor Name: Robiou, Leandro A.
Requestor Phone: (904) 233-5191
Project Title: City of Jacksonville (COJ) Harts Road Bridge Replacement
Project Number: 8008479 and 8008481
Project Location: JEA
Funds: Capital
Business Unit Estimate: $218,192.00

Scope of Work:

JEA has existing water and sewer mains along Harts Rd. and on the bridge over Broward River. JEA will need to relocate some of the existing utilities, as well as install new utilities to avoid conflicts with the COJ's new piles for bridge support. The project will relocate about 250 LF of 16" water main, and approximately 750' feet each of 6", 14" and 20" sewer force main. JEA will be permitting the utilities through the Florida Department of Environmental Protection, as well as the COJ for right-of-way permits. This contract will cover the engineering portion of the work.

JEA IFB/RFP/State/City/GSA#: COJ Contract# 10425-02
Purchasing Agent: Brown, Darriel
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
STV INC.	J. Keith Jackson	keith.jackson@stvinc.com	5200 Belfort Rd, Suite 400, Jacksonville, FL, 32256	(904) 730-9777	$199,782.63

Amount for entire term of Contract/PO: $199,782.63
Award Amount for remainder of this FY: $199,782.63
Length of Contract/PO Term: Project Completion
Begin Date: 01/05/2023
End Date: Project Completion (Expected: December 2025)
JSEB Requirement: N/A – COJ Solicitation

Background/Recommendations:

STV Inc. was selected by the COJ through their normal RFQ process and is the Engineer of Record for the COJ bridge/road design. STV Inc. will perform both the COJ and JEA design work so there is a single point of responsibility for the design, and as one design changes, the other design will be adjusted to accommodate the other and reduce the conflict potential. JEA's utility construction work will be included with COJ's bid and constructed by COJ's contractor providing for a single point of responsibility during construction. Another award for the construction work will be brought to the Awards Committee to approve the bid results for JEA's portion of the work once that determination has been made.

The award amount of $199,782.63 is approximately eight percent (8%) lower than the estimate and deemed reasonable when compared to past projects. This is a joint project with COJ and the construction costs will not be reimbursed by the COJ. The hourly rates negotiated by COJ are comparable to recent JEA engineering awards for projects of this type and deemed reasonable.

Request approval to award a contract to STV, Inc. for professional engineering services for the Harts Road Bridge Replacement Utility Improvements project in the amount of $199,782.63, subject to the availability of lawfully appropriated funds.

Senior Manager: Sulayman, Mickhael S. - Senior Manager Project Management
Director: Conner, Sean M. - Dir W/WW Project Engineering & Construction
VP: Melendez, Pedro A. - VP Planning & Engineering Construction

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

CONTRACT FEE SUMMARY FOR ENGINEERING DIVISION
JACKSONVILLE ELECTRIC AUTHORITY (JEA), JACKSONVILLE, FLORIDA

PART I - GENERAL	
1. Project Professional Structural Engineering Services Harts Road over Broward River Bridge Replacement - JEA Utility Relocation Design - Supplemental Agreement	2. Proposal Number TBD
3. Name of Consultant STV Incorporated	4. Date of Proposal 9/30/2022

PART II - LABOR RELATED COSTS

5. Direct Labor	Hourly Rate	Estimated Hours	Estimated Cost	TOTAL
Project Manager	$74.79	58	$4,337.82	
Principal	$107.08	37	$3,961.96	
Chief Engineer	$86.31	211	$18,211.41	
Senior Engineer	$66.45	261	$17,343.45	
Design Engineer	$37.37	262	$9,790.94	
Engineering Intern	$30.82	171	$5,270.22	
Designer	$44.62	150	$6,693.00	
CADD/Computer Tech	$32.63	0	$0.00	
Clerical	$24.38	12	$292.56	
TOTAL DIRECT LABOR		1,162 Hours		$65,901.36
6. Overhead (Combined Fringe Benefit & Administrative)			150.00%	$98,852.04
7. SUBTOTAL: Labor + Overhead (Items 5 & 6)				$164,753.40
8. PROFIT: Labor Related Costs (Item 7)			x 10%	$16,475.34
			Total Lump Sum Amount	**$181,228.74**

PART III - OTHER COSTS

9. Miscellaneous Direct Costs	
MISCELLANEOUS DIRECT COSTS SUB-TOTAL	**$ -**
10. SUBCONTRACTS (Lump Sum)	
SUB-CONTRACT SUB-TOTAL	$ -
TOTAL LUMP SUM AMOUNT (Items 5, 6, 8 and 10)	**$181,228.74**
11. REIMBURSABLE COSTS (Limiting Amount)	
DRMP (Survey/SUE) $ 18,553.89	
SUB-TOTAL REIMBURSABLES	**$ 18,553.89**

PART IV - SUMMARY

TOTAL AMOUNT (Lump Sum Plus Reimbursables) (Items 5, 6, 8, 9, 10 and 11)	**$ 199,782.63**
12. CONTRACT AMOUNT	
AMENDED AMOUNT OF CONTRACT	**$ 199,782.63**

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 5

Formal Bid and Award System

Award #5 January 5, 2023

Type of Award Request: CONTRACT RENEWAL
Request #: 678
Requestor Name: Sencer, Justin - Mgr W/WW Reuse Delivery & Collection Engineering
Requestor Phone: (904) 665-6826
Project Title: Pipe Bursting Contract
Project Number: 175-W, 175-S, & 169-S1
Project Location: JEA
Funds: Capital
Award Estimate: $4,200,000.00

Scope of Work:
The scope of work includes providing trenchless rehabilitation to the gravity sewer and water system through the Pipe Bursting method. This work will be performed throughout the JEA service area.

JEA IFB/RFP/State/City/GSA#: 061-19
Purchasing Agent: King, David
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Amount
MURPHY PIPELINE CONTRACTORS, LLC	Ed Steele	esteele@teamipr.com	12235 New Berlin Rd, Jacksonville, FL 32226	$4,200,000.00

Amount of Original Award: $8,408,535.00
Date of Original Award: 12/05/2019
Contract Increase Amount: $4,200,000.00

List of Previous Change Order/Amendments:

CPA #	Amount	Date	Reason
190523	$840,853.50	06/13/2022	Administrative Contract increase to fund to contract end date due to increased usage.

New Not-To-Exceed Amount: $13,449,388.50
Contract Term Three (3) Years w/ Two (2) – 1 Yr. Renewals
Begin Date: 01/18/2020
End Date: 01/17/2024

Renewal Options: One (1) – 1 Yr. Renewal remaining
JSEB Requirement: N/A

Background/Recommendations:

Originally approved by Awards Committee on 12/05/2019 to IPR Southeast LLC in the amount of $8,408,535.00. On 06/13/2022 an administrative increase of $840,853.50 was approved due to increased usage of the contract beyond the original estimate because of the effectiveness of the pipe bursting method in replacing pipelines. In year three of the initial contract term, IPR and a company named Murphy Pipeline Contractors, LLC merged, and this contract was assigned to Murphy Pipeline Contracts, LLC on 08/16/2022.

This award request is asking for approval to award the first one-year renewal for pipe bursting services by Murphy Pipeline Contractors. A unit price increase has been allowed for this renewal period. JEA compared the new unit prices to recent bids for unit prices at other municipal utilities in Florida, and the new unit prices were deemed reasonable. A workbook with the updated unit prices is attached to this request, and the unit prices will be used for task orders issued under this contract renewal.

Request approval to award a renewal to Murphy Pipeline Contractors, LLC for pipe bursting in the amount of $4,200,000.00, for a new total not-to-exceed amount of $13,449,388.50, subject to the availability of lawfully approved funds.

Director: Scheel, Jackie B. - Dir W/WW Reuse Delivery & Collection
VP: Vu, Hai X. - VP Water Wastewater Systems

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

Approved by the JEA Awards Committee

Date: 12/05/2019 Item# 8

Formal Bid and Award System

Award #8 December 5, 2019

Type of Award Request:	INVITATION TO NEGOTIATE (ITN)
Request #:	6518
Requestor Name:	Chascin, Kenneth J. - Mgr W/WW Reuse Delivery & Coll Maint Plan & Eng
Requestor Phone:	(904) 665-6185
Project Title:	Pipe Bursting Unit Price Construction
Project Number:	8005171
Project Location:	JEA
Funds:	Capital
Budget Estimate:	$9,000,000.00

Scope of Work:

The intent of this Invitation to Negotiate is to solicit pricing and select a Company that can provide trenchless rehabilitation to the gravity sewer system through the Pipe Bursting method. This work will be performed throughout the JEA service area.

This project will positively affect the following JEA Measures of Value:

- Customer Value: Rehabilitation of main lines and laterals minimizes or eliminates the risk of a wastewater back-up in a customer's home
- Community Impact Value: Pipe bursting is a quicker and less intrusive method of rehabilitating aging infrastructure, lessening the impact to the community. They also diminish the potential for cave-ins.
- Environmental Value: Many pipe bursting projects are either the direct result of SSOs or have been identified as a potential risk for future SSOs. Replacing the infrastructure essentially eliminates these risks.
- Financial Value: Pipe bursting is less expensive than traditional open cut methods, thus saving rehabilitation costs.

JEA IFB/RFP/State/City/GSA#:	061-19
Purchasing Agent:	King, David
Is this a Ratification?:	NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
IPR SOUTHEAST, LLC.	Rich Schici	rschici@ teamipr.com	5207 Brer Rabbit Road, Stone Mountain, GA 30083	(404) 969-3071	$8,408,535.00

Amount for entire term of Contract/PO:	$8,408,535.00
Award Amount for remainder of this FY:	$2,102,133.75
Length of Contract/PO Term:	Three (3) Years w/Two (2) - 1 Yr. Renewals
Begin Date (mm/dd/yyyy):	01/18/2020 (current contract end date)
End Date (mm/dd/yyyy):	01/17/2023
Renewal Options:	YES - Two (2) - 1 Yr. Renewals

Budget cash flow by fiscal year:
FY20: $1.6M
FY21: $2.8M
FY22: $2.8M
FY23: $1.2M

BIDDERS:

Name	First Round	BAFO	3 Year Total	Rank
IPR SOUTHEAST LLC	$2,861,845.00	$2,802,845.00	$8,408,535.00	1
KRG UTILITY, INC.	$4,610,950.00	$4,598,950.00	$13,796,850.00	2
MURPHY PIPELINE CONTRACTORS, INC.	$6,087,700.00	N/A	N/A	N/A

Background/Recommendations:

Advertised on 04/22/2019. Three (3) companies attended the optional pre-response meeting held on 04/30/2019. The solicitation was delayed for three months while a protest to the minimum qualifications was being held. The protest was ultimately rescinded on 08/08/19. A second optional pre-response meeting was held on 08/27/2019, where one (1) company attended. At response opening on 09/17/2019, JEA received three (3) responses. IPR Southeast LLC and KRG Utility, Inc. were short-listed and invited to submit Best and Final Offers (BAFOs). JEA evaluated the companies on price only and IPR Southeast LLC is deemed the lowest responsive and responsible respondent. The bid workbook was based on unit pricing with one-year quantities. The final award amount is based on a three-year total. A copy of the Response Form and Workbook are attached as backup.

The award amount of $8,408,535.00 is 9.3% lower than the estimate. The BAFO resulted in a price reduction of $177,000.00. However, the award amount is $182,862.70, or 2.1% higher than the previous award for the same services that were bid out in 2016. A copy of the cost comparison is attached as backup. Most of the increases are from increased costs in rehabilitation and cleanout installations. These costs will be mitigated by having the vendor utilize JEA costs plus a 10% markup for paving removal and repair and eliminating the cleanouts for residential installations. The budget has been reduced to match award amount.

061-19 – Request approval to award a three year contract to IPR Southeast LLC, for trenchless rehabilitation to the gravity sewer system in the amount of $8,408,535.00, subject to the availability of lawfully appropriated funds.

Director: Scheel, Jackie B, Dir W/WW Reuse Delivery & Collection
VP: Calhoun, Deryle I Jr, Working Title: VP/GM Water Wastewater Systems

APPROVALS:

12/5/19
Chairman, Awards Committee **Date**

12/5/19
Manager, Capital Budget Planning **Date**

ASSIGNMENT OF CONTRACT, CONSENT TO ASSIGNMENT AND ASSUMPTION AGREEMENT

This ASSIGNMENT OF CONTRACT, CONSENT TO ASSIGNMENT AND ASSUMPTION AGREEMENT (this "Agreement") is entered into this 16th day of August, 2022 (the "Effective Date") by and between **JEA**, a body politic and corporate ("JEA**"), IPR SOUTHEAST LLC**, a Delaware Foreign Limited Liability Company with its principal address located at 5207 Brer Rabbit, Stone Mountain, GA 30083 ("Assignor") and **MURPHY PIPELINE CONTRACTS, LLC**, a Delaware Foreign Limited Liability Company with its principal address located at 12235 New Berlin Rd., Jacksonville, FL 32226("Assignee").

WITNESSETH

WHEREAS, JEA and Assignor are parties to a contract dated January 17, 2020 (JEA Contract No. JEA10900/190523) and attached to this Assignment as **Exhibit A** (the "Contract") pursuant to which Assignor agreed to provide JEA with "Pipe Bursting Unit Price Construction"; and

WHEREAS, Assignor wishes to assign the Contract , and Assignee has agreed to assume all of the obligations of Assignor under the Contract, and JEA has agreed to consent to such assignment.

NOW, THEREFORE, for good and valuable consideration, the receipt and the sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Assignor hereby assigns, transfers, and sets over to Assignee all of Assignor's right, title, benefit, privileges and interest in the Contract.

2. Assignee hereby assumes all of Assignor's duties, liabilities and obligations under the Contract.

3. JEA hereby consents to the assignment by Assignor and the assumption by Assignee described in this Assignment.

4. On and after the Effective Date, all Notices required or permitted to be sent to Assignee under the Contract shall be addressed as follows:

5. This Assignment and the rights and obligations of JEA, Assignor and Assignee shall be governed by and interpreted in accordance with the laws of the state of Florida and the venue for any dispute concerning this Assignment shall be brought in courts of appropriate jurisdiction located in Duval County, Florida.

6. This Assignment may be executed in multiple originals, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, JEA, Assignor and Assignee have executed this Assignment as of the Effective Date.

JEA:

JEA
Signature:

Signed on Sep 06,2022 | 15:46:35 (GMT -5:00)

Email:	gleejs@jea.com
Name:	Jenny McCollum
Title:	Director, Procurement Services
Date:	Sep 06,2022 | 15:46:35 (GMT -5:00)

WITNESS:

JEA
Signature:

Signed on Sep 06,2022 | 13:10:43 (GMT -5:00)

Email:	talljb@jea.com
Name:	Jessica Talley
Title:	Contracts Assistant
Date:	Sep 06,2022 | 13:10:43 (GMT -5:00)

ASSIGNOR:

IPR SOUTHEAST, LLC
Signature:

Signed on Sep 02,2022 | 12:58:46 (GMT -5:00)

Email:	ebrown@teamipr.com
Name:	Ernie Brown
Title:	C.O.O.
Date:	Sep 02,2022 | 12:58:46 (GMT -5:00)

ASSIGNEE:

MURPHY PIPELINE CONTRACTORS, LLC
Signature:

Signed on Sep 06,2022 | 12:09:21 (GMT -5:00)

Email:	esteele@teamipr.com
Name:	Ed Steele
Title:	General Manager
Date:	Sep 06,2022 | 12:09:21 (GMT -5:00)

EXHIBIT A

CONTRACT
BETWEEN
JEA
AND
IPR SOUTHEAST LLC
JEA CONTRACT# 187193

THIS CONTRACT is effective as of this day of January, 2020, (the "Effective Date"), by and between **JEA,** a body politic and corporate, with its principal address located at 21 W. Church St., Jacksonville, FL 32202, and **IPR SOUTHEAST LLC,** a Delaware corporation, authorized to conduct business in the State of Florida with its principal office located at 5207 Brer Rabbit Road, Stone Mountain, GA 30083 (the "Company").

WITNESSETH

WHEREAS, pursuant to the JEA Procurement Code, JEA is authorized to procure goods and services via an Invitation to Negotiate ("ITN") solicitation process; and

WHEREAS, JEA invited vendors to participate in the ITN process, and those vendors that qualified were asked to submit their best and final offer ("the BAFO") for **"Pipe Bursting Unit Price Construction",** (the "Work"); and

WHEREAS, said Company has been accepted by JEA as the most responsive and responsible vendor for the completion of the Services at and for the prices stated in the Company's BAFO.

NOW THEREFORE, in consideration of the mutual promises and covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

AGREEMENT

1) JEA hereby engages the Company, and the Company hereby accepts said engagement for the purpose of performing the Work, as described in (i) JEA Solicitation# 061-19 designated as **"Pipe Bursting Unit Price Construction",** as modified by Addenda 1 dated April 23, 2019, as modified by Addenda 2 dated April 29, 2019, Addenda 3 dated May 6, 2019, Addenda 4

dated May 24, 2019, Addenda 5 dated May 29, 2019, Addenda 6 dated August 19, 2019, Addenda 7 dated September 12, 2019, Addenda **8** dated October 18, 2019, (the "ITN"), and (ii) the Company's Best and Final dated October 28, 2019, attached hereto as **Exhibit B** (the "Bid Form").

2) The Services shall be performed strictly in accordance with the ITN, as amended by Addenda, associated Technical Specifications, this Contract and **Exhibits A-B,** and all Purchase Orders issued pursuant to this Contract (collectively, the "Contract"), all of which are hereby specifically made part hereof by reference to the same extent as if fully set out herein.

3) JEA's Maximum Indebtedness under this Contract shall not exceed **Eight Million Four Hundred Eight Thousand Five Hundred Thirty-Five and 00/100 Dollars ($8,408,535.00),** at and for the prices stated in **Exhibit B.**

4) TERM OF CONTRACT-THROUGH COMPLETION OFWORK.

This Contract shall commence on the effective date of the Contract, and continue and remain in full force and effect as to all its terms, conditions and provisions as set forth herein for one (I) years, or until the Contract's Maximum Indebtedness is reached, whichever occurs first. It is at JEA's sole option to renew the Contract for an additional (2) two, one (1) year periods. This Contract, after the initial year shall be contingent upon the existence of lawfully appropriated funds for each subsequent year of the Contract.

5) PAYMENTMETHOD-MONTHLY.

The Company shall submit to JEA an Invoice once a month for Work that has been completed under each Task Order, or for Task Orders that has obtained JEA Acceptance. The Company shall invoice JEA in accordance with Company's Response Workbook. JEA may elect to make a partial payment or no payment if JEA determines, at its sole discretion, and after due consideration of relevant factors, that either all, or part of the Work being invoiced · is not in accordance with the Contract or a particular Work Order. Additionally, JEA may elect to receive invoices on a task authorization or project basis, or otherwise mutually agreed to.

6) INVOICES.

Within sixty (60) days from completion of the Work, the Company shall submit all Invoices in accordance with the payment method agreed upon in these Contract Documents. Invoices shall be submitted to the following email address: acctpaycustsrv@jea.com, or if the . Company does not have email capability, it can email hard copies to: JEA Accounts Payable, P.O. Box 4910, Jacksonville, FL 32201-4910. JEA will pay the Company the amount requested within thirty (30) calendar days after receipt of an Invoice from the Company subject to the provisions stated below.

JEA may reject any Invoice or Application for Payment within 20 calendar days after receipt. JEA will return the Invoice or Application for Payment to the Company stating the reasons for rejection. Upon receipt of an acceptable revised Invoice or Application for Payment, JEA will pay the Respondent the revised amount within ten (10) days. JEA may withhold payment if the Company is in violation of any conditions or terms of the Contract Documents.

In the case of early termination of the Contract, all payments made by JEA against the Contract Price prior to notice of termination shall be credited to the amount, if any, due the Company. If the parties determine that the sum of all previous payments and credits exceeds the sum due the Company, the Company shall refund the excess amount to JEA within ten (10) days of determination or written notice.

7) WARRANTY.

Unless otherwise stated herein, the Company unconditionally warrants to JEA for a period of not less than **two (2) years** from the date of issuance of the Certificate of Substantial Completion, that all Work furnished under the Contract, including but not limited to, materials, equipment, workmanship, and intellectual property, including derivative works will be:

- Performed in a safe, professional and workman like manner; and
- Free from Defects in design, material, and workmanship; and
- Fit for the use and purpose specified or referred to in the Contract; and

- Suitable for any other use or purpose as represented in writing by the Contractor; and
- In conformance with the Contract Documents; and
- Merchantable, new and of first-class quality.

The Company warrants that the Work shall conform to all applicable standards and regulations promulgated by federal, state, local laws and regulations, standards boards, organizations of the Department of State, and adopted industry association standards. If the Work fails to conform to such laws, rules, standards and regulations, JEA may return the Work for correction or replacement at the Company's expense or return the Work at the Company's expense and terminate the Contract.

If the Company performs services that fail to conform to such standards and regulations or to the warranties set forth in the first paragraph of this Section, the Company shall make the necessary corrections at Company's expense. JEA may correct any services to comply with standards and regulations at the Company's expense if the Company fails to make the appropriate corrections within a reasonable time after notice of the Defect from JEA.

If Work includes items covered under a manufacturer's or Subcontractor's warranty that exceeds the requirements stated herein, Company shall transfer such warranty to JEA. Such warranties do not in any way limit the warranty provided by the Company to JEA.

If, within the warranty period, JEA determines that any of the Work is defective or exhibit signs of excessive deterioration, the Company at its own expense, shall repair, adjust, or replace the defective Work to the complete satisfaction of JEA. The Company shall pay all costs of removal, transportation, reinstallation, repair, and all other associated costs incurred in connection with correcting such Defects in the Work. The Company shall correct any Defects only at times designated by JEA. The Company shall extend the warranty period an additional twelve (12) months for any portion of the Work that has undergone warranty repair or replacement, but in no case shall the maximum warranty period be extended beyond thirty-six (36) months.

JEA may repair or replace any defective Work at the Company's expense when the Company fails to correct the Defect within a reasonable time of receiving written notification of the Defect by JEA, when the Company is unable to respond in an emergency situation or when necessary to prevent JEA from substantial financial loss. Where JEA makes repairs or replaces defective Work, JEA will issue the Company a written accounting and invoice of all repair work required to correct the Defects.

Where spare parts may be needed, Company warrants that spare parts will be available to JEA for purchase for at least seventy-five percent (75%) of the stated useful life of the product.

Tue Company's warranty excludes any remedy for damage or Defect caused by abuse, improper or insufficient maintenance, improper operation, or wear and tear under normal usage.

Note that JEA intends to perform a warranty inspection prior to the expiration of the warranty period. JEA will notify the Company and the Company Representative shall attend the inspection. All discrepancies identified at said inspection shall be corrected by the Company within a reasonable timeframe.

8) INSURANCE REQUIREMENTS.

Before starting and until Acceptance of the Services by JEA, and without further limiting its liability under the Contract, Company shall procure and maintain at its sole expense, insurance of the types and in the minimum amounts stated below:

Workers' Compensation

Florida Statutory coverage and Employer's Liability (including appropriate Federal Acts); Insurance Limits: Statutory Limits (Workers' Compensation) $500,000 each accident (Employer's Liability).

Commercial General Liability

Premises-Operations, Products-Completed Operations, Contractual Liability, Independent Contractors, Broad Form Property Damage, Explosion, Collapse and Underground, Hazards (XCU Coverage) as appropriate; Insurance Limits: $1,000,000 each occurrence, $2,000,000 annual aggregate for bodily injury and property damage, combined single limit.

Automobile Liability

All autos-owned, hired, or non-owned; Insurance Limits: $1,000,000 each occurrence, combined single limit.

Excess or Umbrella Liability

(This is additional coverage and limits above the following primary insurance: Employer's Liability, Commercial General Liability, and Automobile Liability); Insurance Limits: $3,000,000 each occurrence and annual aggregate.

Company's Commercial General Liability and Excess or Umbrella Liability policies shall be effective for two years after the Services are complete. The Indemnification provision provided herein is separate and is not limited by the type of insurance or insurance amounts stated above.

Company shall specify JEA as an additional insured for all coverage except Workers' Compensation and Employer's Liability. Such insurance shall be primary to any and all other insurance or self-insurance maintained by JEA. Company shall include a Waiver of Subrogation on all required insurance in favor of JEA, its board members, officers, employees, agents, successors and assigns.

Such insurance shall be written by a company or companies licensed to do business in the State of Florida and satisfactory to JEA. Prior to commencing any Services under this Contract, certificates evidencing the maintenance of the insurance shall be furnished to JEA for approval. Company's and its subcontractors' Certificates of Insurance shall be mailed to

JEA (Attn. Procurement Services), Customer Care Center, 6th Floor, 21 West Church Street, Jacksonville, FL 32202-3139.

The insurance certificates shall provide that no material alteration or cancellation, including expiration and non-renewal, shall be effective until 30 days after receipt of written notice by JEA.

Any subcontractors of Company shall procure and maintain the insurance required of Company hereunder during the life of the subcontracts. Subcontractors' insurance may be either by separate coverage or by endorsement under insurance provided by Company. Note: Any JSEB firms identified by Bidders for this Solicitation are considered "Subcontractors" under the direct supervision of the Prime or General Contractor (herein referred to as "Company"). Companies should show good faith efforts in providing assistance to JSEB firms in the securing of the Subcontractors' insurance requirements stated herein. Company shall submit subcontractors' certificates of insurance to JEA prior to allowing Subcontractors to perform Services on JEA's job sites.

9) INDEMNIFICATION.

For ten dollars ($10.00) acknowledged to be included and paid for in the contract price and other good and valuable considerations, the Company shall hold harmless and indemnify JEA against any claim, action, loss, damage, injury, liability, cost and expense of whatsoever kind or nature (including, but not by way of limitation, reasonable attorney's fees and court costs) arising out of injury (whether mental or corporeal) to persons, including death, or damage to property, arising out of or incidental to the negligence, recklessness or intentional wrongful misconduct of Company and any person or entity used by the Company in the performance of this Contract or Work performed thereunder. For purposes of this Indemnification, the term "JEA" shall mean JEA as a body politic and corporate and shall include its governing board, officers, employees, agents, successors and assigns. For purposes of this Indemnification, This indemnification shall survive the term of a Contract entered into pursuant to this solicitation, for events that occurred during the Contract term.

This indemnification shall be separate and apart from, and in addition to, any other indemnification provisions set forth elsewhere in this Contract.

l0) PUBLIC RECORDS.

All Documents, data and other records received by JEA in connection with the Contract are public records and available for public inspection unless specifically exempt by law. The Company shall allow public access to all documents, data and other records made or received by the Company in connection with the Contract unless the records are exempt from Section 249(a) of Article I of the Florida Constitution or subsection 119.07(1), Florida Statutes. JEA may unilaterally terminate the Contract of the Company refuses to allow public access as required under the Contract.

11) TERMINATION FOR CONVENIENCE.

JEA shall have the absolute right to terminate the Contract in whole or part, with or without cause, at any time after the Award effective date upon written notification of such termination.

In the event of termination for convenience, JEA will pay the Company for all disbursements and expenses that the Company has incurred or has become obligated prior to receiving JEA's notice of termination.

Upon receipt of such notice of termination, the Company shall stop the performance of the Services hereunder except as may be necessary to carry out such termination and take any other action toward termination of the Services that JEA may reasonably request, including all reasonable efforts to provide for a prompt and efficient transition as directed by JEA.

JEA will have no liability to the Company for any cause whatsoever arising out of, or in connection with, termination including, but not limited to, lost profits, lost opportunities, resulting change in business condition, except as expressly stated within these Contract Documents.

12) TERMINATION FOR DEFAULT (WITH A BOND)

JEA may give the Company written notice to discontinue all or part of the Work under the Contract or a Notice to Cure a material breach in the event that:

- The Company assigns or subcontracts the Work without prior written permission;
- Any petition is filed, or any proceeding is commenced by or against the Company for relief under any bankruptcy or insolvency laws;
- A receiver is appointed for the Company's properties, or the Company commits any act of insolvency (however evidenced);
- The Company makes an assignment for the benefit of creditors;
- The Company suspends the operation of a substantial portion of its business;
- The Company suspends the whole or any part of the Work to the extent that it impacts the Company's ability to meet the Work schedule, or the Company abandons the whole or any part of the Work;
- The Company, at any time, violates any of the conditions or provisions of the Contract Documents, or the Company fails to perform as specified in the Contract Documents, or the Company is not complying with the Contract Documents;
- The Company attempts to willfully impose upon JEA items or workmanship that are, in JEA's sole opinion, defective or of unacceptable quality;
- The Company breaches any of the representations or warranties;
- The Company is determined, in JEA's sole opinion, to have misrepresented the utilization of funds or misappropriate property belonging to JEA; or
- There is an adverse material change in the financial or business condition of the Company.

If within fifteen (I 5) days after service of such notice to discontinue or notice to cure upon the Company an arrangement satisfactory to JEA has not been made by the Company for continuance of the Work or the material breach has not been remedied, JEA may declare the Company to be in default and terminate the Contract.

Once Company is declared in default and the Contract has been terminated, JEA will notify the Surety in writing of the termination. The Surety shall, at JEA's sole option take one (I) of the following actions;

(a) Within a reasonable time, but in no event later than thirty (30) days, from JEA's written notice of termination for default, arrange for Company with JEA's consent, which shall not be unreasonably withheld, to complete the Contract and the Surety shall pay JEA all losses, delay and disruption damages and all other damages, expenses, costs and statutory attorney's fees, including appellate proceedings, that JEA sustains because of a default by the Company under the Contract;

(b) Within a reasonable time, but in no event longer than sixty (60) days after JEA's written notice of termination for default, award a contract to a completion contractor and issue notice to proceed or alternatively, JEA may elect, to have the Surety determine jointly with JEA the lowest responsible qualified bidder, to have the Surety arrange for a contract between such bidder and JEA, and for the Surety to make available as Work progresses sufficient funds to pay the cost of completion less the balance of the Contract price; or

(c) Within a reasonable time, but in no event later than thirty (30) days from JEA's notice of termination for default, JEA may waive its right to complete or arrange for completion of the Contract and, within twenty-one (21) days thereafter, determine the amount for which the Surety may be liable to JEA and tender payment to JEA of any amount necessary in order for JEA to complete performance of the Contract in accordance with its terms and conditions less the balance of the Contract price.

JEA shall have the right to take possession of and use any of the materials, plant, tools, equipment, supplies and property of any kind provided by the Company for the purpose of this Work.

JEA will charge the expense of completing the Work to the Company and will deduct such expenses from monies due, or which at any time thereafter may become due, to the Company. If such expenses are more than the sum that would otherwise have been payable

under the Contract, then the Company or Surety shall pay the amount of such excess to JEA upon notice of the expenses from JEA. JEA shall not be required to obtain the lowest price for completing the Work under the Contract, but may make such expenditures that, in its sole judgment, shall best accomplish such completion. JEA will, however, make reasonable efforts to mitigate the excess costs of completing the Work.

The Contract Documents shall in no way limit JEA's right to all remedies for nonperformance provided under law or in equity, except as specifically set forth herein. In the event of termination for nonperformance, the Company shall immediately surrender all Work records to JEA. In such a case, JEA may set off any money owed to the Company against any liabilities resulting from the Company's nonperformance.

JEA has no responsibility whatsoever to issue notices of any kind, including but not limited to deficient performance letters and scorecards, to the Company regarding its performance prior to default by Company for performance related issues.

JEA shall have no liability to the Company for termination costs arising out of the Contract, or any of the Company's subcontracts, as a result of termination for default.

Immediately upon termination or expiration of this Agreement, Company must return to JEA all materials, documents and things used by Company and belonging to JEA, including proposals, computer files, borrower files, building keys, and any other property or information regarding continued business compliance or goodwill, whether in electronic or hard-copy form. Furthermore, upon JEA's request, Company shall certify in writing that all of the foregoing documents or materials, including archival or backup copies, whether in electronic of hard-copy form, have been returned to JEA, deleted from any computer system, or otherwise destroyed.

Any other provision in this Agreement to the contrary notwithstanding the duration of this Agreement after the initial year, shall be contingent upon the existence of lawfully appropriated funds for each subsequent year of the term.

13) SUSPENSION OF WORK.

JEA may suspend the performance of the Work by providing the Company with five (5) days' written notice of such suspension. Schedules and compensation for performance of the Work shall be amended by mutual agreement to reflect such suspension. In the event of suspension of Work, the Company shall resume full performance of the Work when JEA gives written direction to do so. Suspension of Work for reasons other than the Company's negligence or failure to perform, shall not affect the Company's compensation as outlined in the Contract Documents.

14) ORDER OF PRECEDENCE.

Toe Contract shall consist of JEA's Contract and/or Purchase Order together with the Solicitation including, but not limited to, the executed Bid Documents, which shall be collectively referred to as the Contract Documents. This Contract is the complete agreement between the parties. Paro! or extrinsic evidence will not be used to vary or contradict the express terms of this Contract. Toe Contract Documents are complementary; what is called for by one (1) is binding as if called for by all. The Company shall inform JEA in writing of any conflict, error or discrepancy in the Contract Documents upon discovery. Should the Company proceed with the Work prior to written resolution of the error or conflict by JEA, all Work performed is at the sole risk of the Company. JEA will generally consider this precedence of the Contract Documents in resolving any conflict, error, or discrepancy:

- Executed Contract Amendments
- Executed Contract Documents
- Exhibits to Contract Documents
- Purchase Order(s)
- Addenda to JEA Solicitation
- Drawings associated with this Solicitation
- Exhibits and Attachments to this Solicitation
- Technical Specifications associated with this Solicitation
- This Solicitation

- Bid Documents
- References

The figure dimensions on drawings shall govern over scale dimensions. Contract and detailed drawings shall govern over general drawings, The Company shall perform any Work th.at may reasonably be inferred from the Contract as being required whether or not it is specifically called for. Work, materials or equipment described in words that, so applied, have a well-known technical or trade meaning shall be taken as referring to such recognized standards.

15) All notices required or permitted under this Contract shall be in writing and shall be deemed received upon receipt. Notices shall be addressed by a party to the other party as follows:

In the case of JEA:

JEA
Attn: Kenneth Chascin
2434 Pearl Street
Jacksonville, FL 32206
Ph: 904-665-6185
chaskj@jea.com

and to:

JEA
Attn: Heather Beard, Manager, Procurement Contract Administration
21 W. Church St. CC-6
Jacksonville, FL 32202
Ph: 904-665-7606
bearhb@jea.com

In the case of Company:

IPR SOUTHEAST LLC
Attn: Rich Schici
5207 Brer Rabbit Road
Stone Mountain, GA 30083
Ph: 404-969-3071
rschici@tearnipr.com

Either party may change its address from time to time upon prior written notice to the other specifying the effective date of the new address.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, in triplicate, as of the day and year first above written.

ATTEST:

By: _____

Name: _____

Title: _____

Date: _____

COMPANY:
IPR SOUTHEAST LLC

By: _____

Name: ~~Wendy Wilkes~~ Jamee Bedingfield

Title: ~~Manager~~ Corporate Controller & Treasurer

Date: 1/17/2020

ATTEST:

By: _____

Name: Maurice Scarboro
Title: Contracts Associate

Date: 1/17/2020

JEA

By: _____

Jenny McCollum
Director, Procurement Services

Date: 1/17/2020

Approved by the JEA Awards Committee on ~~November 21, 2019~~ December 5, 2019, Award Item No. 8.

Addendum 8 Appendix B - Workbook
061-19 Pipe Bursting Unit Price Construction
Only complete prices in yellow cells.

Item No.	Spec No.	Est. Qty.	Unit	BASE BID	Unit Price	Total Price
1	427.1	3	EA	Type "A" Manhole (0' – 4' Deep)	$2,500.00	$7,500.00
2	427.1	1	EA	Type "A" Manhole (2' Increment adder)	$500.00	$500.00
8	427.1	1	EA	Remove and Construct Type "A" Manhole (0' – 4' Deep)	$2,550.00	$2,550.00
9	427.1	1	EA	Remove and Construct Type "A" Manhole (2' Increment adder)	$530.00	$530.00
14	427.3	150	EA	Connection to Existing Manhole (New HDPE Pipe)	$225.00	$33,750.00
15	427.3	3	EA	Connection to Existing Manhole 6" Service Lateral	$100.00	$300.00
16	427.4	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (0' - 4' Deep)	$195.00	$3,900.00
17	427.4	30	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (4' - 8' Deep)	$210.00	$6,300.00
18	428.1	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (8' - 12' Deep)	$220.00	$4,400.00
19	428.1	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (12' – 16' Deep)	$650.00	$13,000.00
24	428.6	100	LF	Yard Piping – 4"	$1.00	$100.00
25	428.6	100	LF	Yard Piping – 6"	$1.00	$100.00
26	931.1	500	LF	Sewer Pipe Bursting 6" to 7.125 OD SDR 19, HDPE Pipe, 0' - 4' Deep	$48.50	$24,250.00
27	931.1	500	LF	Sewer Pipe Bursting 6" to 7.125 OD SDR 19, HDPE Pipe, 4' - 8' Deep	$49.50	$24,750.00
28	931.1	1500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 0' - 4' Deep	$50.00	$75,000.00
29	931.1	15000	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 4' - 8' Deep	$54.00	$810,000.00
30	931.1	5000	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 8' - 12' Deep	$59.50	$297,500.00
34	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 4' – 8' Deep	$63.00	$31,500.00
35	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 8' – 12 Deep	$79.00	$39,500.00
36	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 12' – 16' Deep	$82.00	$41,000.00
39	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 4' – 8' Deep	$87.00	$43,500.00
40	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 8' – 12' Deep	$92.00	$46,000.00
41	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$95.00	$47,500.00
43	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 0' – 4' Deep	$77.00	$38,500.00
44	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 4' – 8' Deep	$87.00	$43,500.00
45	931.1	500	LF	Sewer Pipe Bursting 10" – 12" to 12.75 OD SDR 17, HDPE Pipe, 8' – 12 Deep	$95.00	$47,500.00
46	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$99.00	$49,500.00
48	931.1	500	LF	Sewer Pipe Bursting 12" – 16" to 17.40 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$79.00	$39,500.00
49	931.1	500	LF	Sewer Pipe Bursting 12" - 16" to 17.40 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$96.00	$48,000.00
51	931.1	500	LF	Sewer Pipe Bursting 16" - 18" to 19.50 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$98.50	$49,250.00
52	931.1	500	LF	Sewer Pipe Bursting 16" – 18" to 19.50 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$115.00	$57,500.00
		50	LF	Incremental Cost for Ductile Iron 6"	$25.00	$1,250.00
		10	LF	Incremental Cost for Ductile Iron 8"	$100.00	$1,000.00
		10	LF	Incremental Cost for Ductile Iron 10"	$100.00	$1,000.00
		10	LF	Incremental Cost for Ductile Iron 12"	$100.00	$1,000.00
		10	LF	Incremental Cost for Ductile Iron >12 - 18"	$100.00	$1,000.00
60	931.1	10000	LF	3" – 8" Sewer Service Lateral to 4.5", 6.625", 9.05" OD SDR 19, HDPE or 6" or 8" PVC SDR35 Conforming to ASTM D3034-74 (All Depths)	$18.00	$180,000.00
61	931.1	25	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 0' – 4' Deep	$1,000.00	$25,000.00
62	931.1	300	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 4' – 8' Deep	$1,050.00	$315,000.00
63	931.1	25	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 8' – 12' Deep	$1,250.00	$31,250.00
66	931.1	10	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, (Within existing Pit - All Depths)	$45.00	$450.00
67	931.1	10	EA	Sewer Lateral Connection @ Right of way 4" – 8" HDPE, 0' – 4' Deep	$315.00	$3,150.00
68	931.1	10	EA	Sewer Lateral Connection @ Right of way 4" – 8" HDPE, 4' – 8' Deep	$515.00	$5,150.00
69	931.1	5	EA	Sewer Lateral Connection @ Right of way 4" – 8" HDPE, 8' – 12' Deep	$715.00	$3,575.00
74	932	30	EA	Manhole Frame and Grade Adjustment, Up to Two Feet	$695.00	$20,850.00
75	932	2	VF	Manhole Frame and Grade Adjustment, Excess Over Two Feet	$100.00	$200.00
79	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (0' - 4' Deep)	$1,500.00	$7,500.00
80	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (4' – 8' Deep)	$2,000.00	$10,000.00
81	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (8' - 12' Deep)	$2,650.00	$13,250.00
82	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (12' – 16' Deep)	$2,750.00	$13,750.00
87	947	10	EA	Cleanout (4" to 8" pipe)	$1,050.00	$10,500.00
88	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (0'- 4' LF)	$10.00	$10.00
89	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (4'- 8' LF)	$10.00	$10.00
90	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (8'-12' LF)	$10.00	$10.00
91	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (12'-16' LF)	$10.00	$10.00
99	998	1	EA	Conflict Encasement--Class 1	$350.00	$350.00
100	998	1	EA	Conflict Encasement--Class 2	$350.00	$350.00
101	998	5	EA	Conflict Encasement w/ manhole--Class 3	$350.00	$1,750.00
102	408-4	100	CY	A-3 Soil Backfill	$112.00	$11,200.00

103	408-4	100	CY	Flowable Fill	$120.00	$12,000.00
104	441-1	1000	SY	Sodding	$11.00	$11,000.00
105	960	500	SY	Remove and Replace Sidewalk (All Types and Thickness)	$145.00	$72,500.00
106	960	100	SY	Remove and Replace Concrete or Asphalt Driveway (All Thickness)	$155.00	$15,500.00
107	960	50	LF	Remove and Replace Curb & Gutter (All Types)	$92.00	$4,600.00
108	7.3.22.	1000	SY	Paving Removal & Repair – Cross Cut & Patch to City, County, or State standard, as applicable.	Contractor will utilize JEA's Asphalt contractor, utilize JEA pricing, and submit invoice with 10% mark-up	
109	6.9.6.	1	LS	Testing Allowance	$2,000.00	$2,000.00
110	6.12.5.	1	LS	Supplemental Work Authorization (SWA)	$100,000.00	$100,000.00

ESTIMATED TOTAL COST: $2,802,845.00

061-19 Pipe Bursting Unit Price Construction

Only complete prices in yellow cells.

CONTINGENCY ITEMS

Item No.	Spec No.	Est. Qty.	Units	Description	Unit Price	Total Price
3	427.1	1	EA	Type "B" Manhole (0' – 4' Deep)	$3,500.00	$3,500.00
4	427.1	1	EA	Type "B" Manhole (2' Increment adder)	$675.00	$675.00
5	427-1	1	EA	Type "C" Manhole (0' – 4' Deep)	$3,000.00	$3,000.00
6	427.1	1	EA	Fiberglass Manhole 48" Diameter (0' – 4' Deep)	$2,350.00	$2,350.00
7	427.1	1	EA	Fiberglass Manhole 48"Diameter (2' Increment adder)	$350.00	$350.00
10	427.3	1	EA	Remove and Construct Type "B" Manhole (0' – 4' Deep)	$3,500.00	$3,500.00
11	427.3	1	EA	Remove and Construct Type "B" Manhole (2' Increment adder)	$650.00	$650.00
12	427.3	1	EA	Remove and Construct 48" Diameter Fiberglass Manhole (0' – 4' Deep)	$3,500.00	$3,500.00
13	427.3	1	EA	Remove & Construct 48" Diameter Fiberglass Manhole (2' Increment adder)	$350.00	$350.00
20	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (0' - 4' Deep)	$325.00	$6,500.00
21	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (4' - 8' Deep)	$350.00	$7,000.00
22	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (8' – 12' Deep)	$375.00	$7,500.00
23	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (12' – 16' Deep)	$475.00	$9,500.00
31	931.1	500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 12' – 16' Deep	$100.00	$50,000.00
32	931.1	500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 16' – 20' Deep	$200.00	$100,000.00
33	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 0' – 4' Deep	$63.50	$31,750.00
37	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 16' – 20' Deep	$225.00	$112,500.00
38	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 0' – 4' Deep	$88.00	$44,000.00
42	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$250.00	$125,000.00
47	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$275.00	$137,500.00
50	931.1	500	LF	Sewer Pipe Bursting 12" - 16" to 17.40 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$375.00	$187,500.00
53	931.1	500	LF	Sewer Pipe Bursting 16" – 18" to 19.50 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$425.00	$212,500.00
54	931.1	500	LF	Sewer Pipe Bursting 18" - 20" to 21.60 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$225.00	$112,500.00
55	931.1	500	LF	Sewer Pipe Bursting 18" - 20" to 21.60 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$250.00	$125,000.00
56	931.1	500	LF	Sewer Pipe Bursting 18" - 20" to 21.60 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$435.00	$217,500.00
57	931.1	500	LF	Sewer Pipe Bursting 20" - 24" to 25.80 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$245.00	$122,500.00
58	931.1	500	LF	Sewer Pipe Bursting 20" - 24" to 25.80 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$255.00	$127,500.00
59	931.1	500	LF	Sewer Pipe Bursting 20" - 24" to 25.80 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$500.00	$250,000.00
64	931.1	10	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 12' – 16' Deep	$6,000.00	$60,000.00
65	931.1	10	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 16' – 20' Deep	$7,000.00	$70,000.00
70	934	10	EA	Lateral Connection Deemed Inactive (0' – 5' Deep)	$500.00	$5,000.00
71	934	10	EA	Lateral Connection Deemed Inactive (5' – 8' Deep)	$1,000.00	$10,000.00
72	934	10	EA	Lateral Connection Deemed Inactive (8' – 12' Deep)	$1,250.00	$12,500.00
73	934	10	EA	Lateral Connection Deemed Inactive (12' – 16' Deep)	$2,500.00	$25,000.00
76	936	100	LF	Mainline cleaning only 6"-12" Dia. pipe	$5.00	$500.00
77	936	100	LF	CCTV and Light Clean 8" – 15" Dia pipe	$7.00	$700.00
78	936	100	LF	CCTV and Light Clean 18" – 24" Dia pipe	$10.00	$1,000.00
83	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14" – 24" PVC (0' – 4' Deep)	$3,800.00	$3,800.00
84	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14" – 24" PVC (4' – 8' Deep)	$4,800.00	$4,800.00
85	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14" – 24" PVC (8' – 12' Deep)	$5,800.00	$5,800.00
86	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14" – 24" PVC (12' – 16' Deep)	$6,800.00	$6,800.00
92	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (0'- 4' LF)	$110.00	$110.00
93	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (4'-8' LF)	$115.00	$115.00
94	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (8'-12' LF)	$75.00	$75.00
95	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (12'-16' LF)	$75.00	$75.00
96	990	1	VF	Install Drop Connection in Manhole For 15"-18" Pipe Size (0'- 4' LF)	$100.00	$100.00
97	990	1	VF	Install Drop Connection in Manhole For 15"-18" Pipe Size (4'-8' LF)	$100.00	$100.00
98	990	1	VF	Install Drop Connection in Manhole For 15"-18" Pipe Size (8'-12' LF)	$75.00	$75.00

ESTIMATED TOTAL COST: $2,210,675.00

Addendum 4 Appendix B - Workbook 061-19 Pipe Bursting Unit Price Construction							Previous (Solic 013-16)		
Item No.	Spec No.	Est. Qty.	Unit	BASE BID	Unit Price	Total Price	Unit Price	Extended Price	Total Difference
1	427.1	3	EA	Type "A" Manhole (0' – 4' Deep)	$2,500.00	$7,500.00	$ 2,500.00	$ 7,500.00	$ -
2	427.1	1	EA	Type "A" Manhole (2' Increment adder)	$500.00	$500.00	$ 500.00	$ 500.00	$ -
8	427.1	1	EA	Remove and Construct Type "A" Manhole (0' – 4' Deep)	$2,550.00	$2,550.00	$ 2,550.00	$ 2,550.00	$ -
9	427.1	1	EA	Remove and Construct Type "A" Manhole (2' Increment adder)	$530.00	$530.00	$ 530.00	$ 530.00	$ -
14	427.3	150	EA	Connection to Existing Manhole (New HDPE Pipe)	$225.00	$33,750.00	$ 225.00	$ 33,750.00	$ -
15	427.3	3	EA	Connection to Existing Manhole 6" Service Lateral	$100.00	$300.00	$ 650.00	$ 1,950.00	$ (1,650.00)
16	427.4	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (0' – 4' Deep)	$195.00	$3,900.00	$ 90.00	$ 1,800.00	$ 2,100.00
17	427.4	30	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (4' - 8' Deep)	$210.00	$6,300.00	$ 100.00	$ 3,000.00	$ 3,300.00
18	428.1	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (8' - 12' Deep)	$220.00	$4,400.00	$ 105.00	$ 7,100.00	$ 2,300.00
19	428.1	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (12' – 16' Deep)	$650.00	$13,000.00	$ 110.00	$ 2,200.00	$ 10,800.00
24	428.6	100	LF	Yard Piping – 4"	$1.00	$100.00	$ 8.00	$ 800.00	$ (700.00)
25	428.6	100	LF	Yard Piping – 6"	$1.00	$100.00	$ 10.00	$ 1,000.00	$ (900.00)
26	931.1	500	LF	Sewer Pipe Bursting 6" to 7.125 OD SDR 19, HDPE Pipe, 0' - 4' Deep	$48.50	$24,250.00	$ 48.50	$ 24,250.00	$ -
27	931.1	500	LF	Sewer Pipe Bursting 6" to 7.125 OD SDR 19, HDPE Pipe, 4' - 8' Deep	$49.50	$24,750.00	$ 49.50	$ 24,750.00	$ -
28	931.1	1500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 0' - 4' Deep	$50.00	$75,000.00	$ 50.00	$ 75,000.00	$ -
29	931.1	15000	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 4' - 8' Deep	$54.00	$810,000.00	$ 50.00	$ 750,000.00	$ 60,000.00
30	931.1	5000	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 8' - 12' Deep	$59.50	$297,500.00	$ 55.50	$ 277,500.00	$ 20,000.00
34	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 4' – 8' Deep	$63.00	$31,500.00	$ 63.50	$ 31,750.00	$ (250.00)
35	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 8' – 12 Deep	$79.00	$39,500.00	$ 72.00	$ 36,000.00	$ 3,500.00
36	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 12' – 16' Deep	$82.00	$41,000.00	$ 75.00	$ 37,500.00	$ 3,500.00
39	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 4' – 8' Deep	$87.00	$43,500.00	$ 80.00	$ 40,000.00	$ 3,500.00
40	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 8' – 12' Deep	$92.00	$46,000.00	$ 85.00	$ 42,500.00	$ 3,500.00
41	931.1	500	LF	Sewer Pipe Bursting 8" - 10" to 12.75 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$95.00	$47,500.00	$ 88.00	$ 44,000.00	$ 3,500.00
43	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 0' – 4' Deep	$77.00	$38,500.00	$ 70.50	$ 35,250.00	$ 3,250.00
44	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 4' – 8' Deep	$87.00	$43,500.00	$ 80.00	$ 40,000.00	$ 3,500.00
45	931.1	500	LF	Sewer Pipe Bursting 10" – 12" to 12.75 OD SDR 17, HDPE Pipe, 8' – 12 Deep	$95.00	$47,500.00	$ 88.00	$ 44,000.00	$ 3,500.00
46	931.1	500	LF	Sewer Pipe Bursting 10" - 12" to 12.75 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$99.00	$49,500.00	$ 90.50	$ 45,250.00	$ 4,250.00
48	931.1	500	LF	Sewer Pipe Bursting 12" – 16" to 17.40 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$79.00	$39,500.00	$ 72.00	$ 36,000.00	$ 3,500.00
49	931.1	500	LF	Sewer Pipe Bursting 12" - 16" to 17.40 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$96.00	$48,000.00	$ 88.00	$ 44,000.00	$ 4,000.00
51	931.1	500	LF	Sewer Pipe Bursting 16" - 18" to 19.50 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$98.50	$49,250.00	$ 75.00	$ 37,500.00	$ 11,750.00
52	931.1	500	LF	Sewer Pipe Bursting 16" – 18" to 19.50 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$115.00	$57,500.00	$ 90.00	$ 45,000.00	$ 12,500.00
		50	LF	Incremental Cost for Ductile Iron 6"		$0.00		$ -	$ -
		10	LF	Incremental Cost for Ductile Iron 8"		$0.00		$ -	$ -
		10	LF	Incremental Cost for Ductile Iron 10"		$0.00		$ -	$ -
		10	LF	Incremental Cost for Ductile Iron 12"		$0.00		$ -	$ -
		10	LF	Incremental Cost for Ductile Iron >12 - 18"		$0.00		$ -	$ -
60	931.1	10000	LF	3" – 8" Sewer Service Lateral to 4.5", 6.625", 9.05" OD SDR 19, HDPE or 6" or 8" PVC SDR35 Conforming to ASTM D3034-74 (All Depths)	$18.00	$180,000.00	$ 29.00	$ 290,000.00	$ (110,000.00)
61	931.1	25	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 0' – 4' Deep	$1,000.00	$25,000.00	$ 1,000.00	$ 25,000.00	$ -
62	931.1	300	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 4' – 8' Deep	$1,050.00	$315,000.00	$ 1,050.00	$ 315,000.00	$ -
63	931.1	25	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, 8' – 12' Deep	$1,250.00	$31,250.00	$ 1,250.00	$ 31,250.00	$ -
66	931.1	10	EA	Sewer Lateral Connection @ mainline 8" – 18" HDPE, (Within existing Pit - All Depths)	$45.00	$450.00	$ 45.00	$ 450.00	$ -
67	931.1	10	EA	Sewer Lateral Connection @ Right of way 4" – 8" HDPE, 0' – 4' Deep	$315.00	$3,150.00	$ 162.50	$ 1,625.00	$ 1,525.00
68	931.1	10	EA	Sewer Lateral Connection @ Right of way 4" – 8" HDPE, 4' – 8' Deep	$515.00	$5,150.00	$ 162.50	$ 1,625.00	$ 3,525.00
69	931.1	5	EA	Sewer Lateral Connection @ Right of way 4" – 8" HDPE, 8' – 12' Deep	$715.00	$3,575.00	$ 162.50	$ 812.50	$ 2,762.50
74	932	30	EA	Manhole Frame and Grade Adjustment, Up to Two Feet	$695.00	$20,850.00	$ 650.00	$ 19,500.00	$ 1,350.00
75	932	2	VF	Manhole Frame and Grade Adjustment, Excess Over Two Feet	$100.00	$200.00	$ 50.00	$ 100.00	$ 100.00
79	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (0' - 4' Deep)	$1,500.00	$7,500.00	$ 1,500.00	$ 7,500.00	$ -
80	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (4' – 8' Deep)	$2,000.00	$10,000.00	$ 1,900.00	$ 9,800.00	$ 500.00
81	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (8' - 12' Deep)	$2,650.00	$13,250.00	$ 2,550.00	$ 12,750.00	$ 500.00
82	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6" – 12" PVC (12' – 16' Deep)	$2,750.00	$13,750.00	$ 2,500.00	$ 12,500.00	$ 1,250.00
87	947	10	EA	Cleanout (4" to 8" pipe)	$1,050.00	$10,500.00	$ 375.00	$ 3,750.00	$ 6,750.00
88	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (0'- 4' LF)	$10.00	$10.00	$ 100.00	$ 100.00	$ (90.00)
89	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (4'- 8' LF)	$10.00	$10.00	$ 90.00	$ 90.00	$ (80.00)
90	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (8'-12' LF)	$10.00	$10.00	$ 65.00	$ 65.00	$ (55.00)
91	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (12'-16' LF)	$10.00	$10.00	$ 55.00	$ 55.00	$ (45.00)
99	998	1	EA	Conflict Encasement--Class 1	$350.00	$350.00	$ 1,000.00	$ 1,000.00	$ (650.00)
100	998	1	EA	Conflict Encasement--Class 2	$350.00	$350.00	$ 1,100.00	$ 1,100.00	$ (750.00)
101	998	5	EA	Conflict Encasement w/ manhole--Class 3	$350.00	$1,750.00	$ 1,200.00	$ 6,000.00	$ (4,250.00)
102	408-4	100	CY	A-3 Soil Backfill	$112.00	$11,200.00	$ 13.00	$ 1,300.00	$ 9,900.00
103	408.4	100	CY	Flowable Fill	$120.00	$12,000.00	$ 130.00	$ 13,000.00	$ -
104	441-1	1000	SY	Sodding	$11.00	$11,000.00	$ 9.00	$ 9,000.00	$ 2,000.00
105	960	500	SY	Remove and Replace Sidewalk (All Types and Thickness)	$145.00	$72,500.00	$ 72.50	$ 36,250.00	$ 36,250.00
106	960	100	SY	Remove and Replace Concrete or Asphalt Driveway (All Thickness)	$155.00	$15,500.00	$ 85.00	$ 8,500.00	$ 7,000.00
107	960	50	LF	Remove and Replace Curb & Gutter (All Types)	$92.00	$4,600.00	$ 30.00	$ 1,500.00	$ 3,100.00
108	7.3.22.	4578	SY	Paving Removal & Repair – Cross Cut & Patch to City, County, or State standard, as applicable. (Vendor to use JEA's asphalt contractor at cost plus 10%)	$42.90	$196,376.58	$ 55.00	$ 251,764.85	$ (55,388.27)
109	8.9.6.	1	LS	Testing Allowance	$2,000.00	$2,000.00	$ 5,000.00	$ 5,000.00	$ (3,000.00)
110	6.12.5.	1	LS	Supplemental Work Authorization (SWA)	$100,000.00	$100,000.00	$ 100,000.00	$ 100,000.00	$ -
				ESTIMATED TOTAL COST:		$2,993,971.58		$2,933,017.35	$ (60,954.23) 1-year difference
									$ (182,862.70) 3-year difference
									2.1% percent difference

Contract Renewal - Workbook
061-19 Pipe Bursting Unit Price Construction
Only complete prices in yellow cells.

Item No.	Spec No.	Est. Qty.	Unit	BASE BID	Unit Price	Total Price
W1	750.2	2000	LF	Pre-Chlorinated, 4" ID Water Pipe Bursting to 6" OD DR-11, HDPE, 0' - 5' Deep	$127.00	$254,000.00
W2	750.2	200	LF	Pre-Chlorinated, 4" ID Water Pipe Bursting to 6" OD DR-11, HDPE, 5' - 8' Deep	$137.00	$27,400.00
W3	750.2	4000	LF	Pre-Chlorinated, 6" ID Water Pipe Bursting to 8" OD DR-11, HDPE, 0' - 5' Deep	$135.00	$540,000.00
W4	750.2	400	LF	Pre-Chlorinated, 6" ID Water Pipe Bursting to 8" OD DR-11, HDPE, 5' - 8' Deep	$145.00	$58,000.00
W5	750.2	2000	LF	Pre-Chlorinated, 8" ID Water Pipe Bursting to 10" OD DR-11, HDPE , 0' - 5' Deep	$147.00	$294,000.00
W6	750.2	200	LF	Pre-Chlorinated, 8" ID Water Pipe Bursting to 10" OD DR-11, HDPE, 5' - 8' Deep	$157.00	$31,400.00
W7	750.2	1000	LF	Pre-Chlorinated, 10" ID Water Pipe Bursting to 12" OD DR-11, HDPE , 0' - 5' Deep	$167.00	$167,000.00
W8	750.2	100	LF	Pre-Chlorinated, 10" ID Water Pipe Bursting to 12" OD DR-11, HDPE , 5' - 8' Deep	$177.00	$17,700.00
W9	750.2	20	EA	6" HDPE to 4" DI Reducer, 0'-5' Deep	$450.00	$9,000.00
W10	750.2	4	EA	6" HDPE to 4" DI Reducer, 5'-8' Deep	$550.00	$2,200.00
W11	750.2	50	EA	8" HDPE to 6" DI Reducer, 0'-5' Deep	$500.00	$25,000.00
W12	750.2	8	EA	8" HDPE to 6" DI Reducer, 5'-8' Deep	$600.00	$4,800.00
W13	750.2	20	EA	10" HDPE to 8" DI Reducer, 0'-5' Deep	$600.00	$12,000.00
W14	750.2	4	EA	10" HDPE to 8" DI Reducer, 5'-8' Deep	$700.00	$2,800.00
W15	750.2	10	EA	12" HDPE to 10" DI Reducer, 0'-5' Deep	$750.00	$7,500.00
W16	750.2	2	EA	12" HDPE to 10" DI Reducer, 5'-8' Deep	$950.00	$1,900.00
W17	350.2	10	EA	4" Bend or Sleeve, MJ, DI, CL, 0'-5' Deep	$450.00	$4,500.00
W18	350.2	2	EA	4" Bend or Sleeve, MJ, DI, CL, 5'-8' Deep	$550.00	$1,100.00
W19	350.2	20	EA	6" Bend or Sleeve, MJ, DI, CL, 0'-5' Deep	$500.00	$10,000.00
W20	350.2	4	EA	6" Bend or Sleeve, MJ, DI, CL, 5'-8' Deep	$600.00	$2,400.00
W21	350.2	10	EA	8" Bend or Sleeve, MJ, DI, CL, 0'-5' Deep	$600.00	$6,000.00
W22	350.2	2	EA	8" Bend or Sleeve, MJ, DI, CL, 5'-8' Deep	$700.00	$1,400.00
W23	350.2	5	EA	10" Bend or Sleeve, MJ, DI, CL, 0'-5' Deep	$750.00	$3,750.00
W24	350.2	2	EA	10" Bend or Sleeve, MJ, DI, CL, 5'-8' Deep	$950.00	$1,900.00
W25	350.2	20	EA	4"x4"x4" Tee, MJ, DI, CL, 0'-5' Deep	$1,250.00	$25,000.00
W26	350.2	4	EA	4"x4"x4" Tee, MJ, DI, CL, 5'-8' Deep	$1,350.00	$5,400.00
W27	350.2	50	EA	6"x6"x4" Tee, MJ, DI, CL, 0'-5' Deep	$1,350.00	$67,500.00
W28	350.2	8	EA	6"x6"x4" Tee, MJ, DI, CL, 5'-8' Deep	$1,450.00	$11,600.00
W29	350.2	50	EA	6"x6"x6" Tee, MJ, DI, CL, 0'-5' Deep	$1,400.00	$70,000.00
W30	350.2	8	EA	6"x6"x6" Tee, MJ, DI, CL, 5'-8' Deep	$1,500.00	$12,000.00
W31	350.2	20	EA	8"x8"x4" Tee, MJ, DI, CL, 0'-5' Deep	$1,500.00	$30,000.00
W32	350.2	4	EA	8"x8"x4" Tee, MJ, DI, CL, 5'-8' Deep	$1,600.00	$6,400.00
W33	350.2	20	EA	8"x8"x6" Tee, MJ, DI, CL, 0'-5' Deep	$1,550.00	$31,000.00
W34	350.2	4	EA	8"x8"x6" Tee, MJ, DI, CL, 5'-8' Deep	$1,650.00	$6,600.00
W35	350.2	10	EA	8"x8"x8" Tee, MJ, DI, CL, 0'-5' Deep	$1,800.00	$18,000.00
W36	350.2	2	EA	8"x8"x8" Tee, MJ, DI, CL, 5'-8' Deep	$1,900.00	$3,800.00
W37	350.2	10	EA	10"x10"x4" Tee, MJ, DI, CL, 0'-5' Deep	$1,900.00	$19,000.00
W38	350.2	2	EA	10"x10"x4" Tee, MJ, DI, CL, 5'-8' Deep	$1,950.00	$3,900.00
W39	350.2	10	EA	10"x10"x6" Tee, MJ, DI, CL, 0'-5' Deep	$2,000.00	$20,000.00
W40	350.2	2	EA	10"x10"x6" Tee, MJ, DI, CL, 5'-8' Deep	$2,100.00	$4,200.00
W41	350.2	10	EA	10"x10"x8" Tee, MJ, DI, CL, 0'-5' Deep	$2,050.00	$20,500.00
W42	350.2	2	EA	10"x10"x8" Tee, MJ, DI, CL, 5'-8' Deep	$2,150.00	$4,300.00
W43	350.2	5	EA	10"x10"x10" Tee, MJ, DI, CL, 0'-5' Deep	$2,150.00	$10,750.00
W44	350.2	2	EA	10"x10"x10" Tee, MJ, DI, CL, 5'-8' Deep	$2,250.00	$4,500.00
W45	350.2	10	EA	4" Plug or Cap, MJ, DI, CL, 0'-5' Deep - Tapped 2"	$400.00	$4,000.00
W46	350.2	2	EA	4" Plug or Cap, MJ, DI, CL, 5'-8' Deep - Tapped 2"	$500.00	$1,000.00
W47	350.2	20	EA	6" Plug or Cap, MJ, DI, CL, 0'-5' Deep - Tapped 2"	$450.00	$9,000.00
W48	350.2	4	EA	6" Plug or Cap, MJ, DI, CL, 5'-8' Deep - Tapped 2"	$550.00	$2,200.00
W49	350.2	10	EA	8" Plug or Cap, MJ, DI, CL, 0'-5' Deep - Tapped 2"	$500.00	$5,000.00
W50	350.2	2	EA	8" Plug or Cap, MJ, DI, CL, 5'-8' Deep - Tapped 2"	$550.00	$1,100.00
W51	350.2	5	EA	10" Plug or Cap, MJ, DI, CL, 0'-5' Deep - Tapped 2"	$600.00	$3,000.00
W52	350.2	2	EA	10" Plug or Cap, MJ, DI, CL, 5'-8' Deep - Tapped 2"	$650.00	$1,300.00
W53	350.2	10	EA	4" MJ Bell Restraint 0'-5' Deep	$450.00	$4,500.00
W54	350.2	2	EA	4" MJ Bell Restraint 5'-8' Deep	$500.00	$1,000.00
W55	350.2	20	EA	6" MJ Bell Restraint 0'-5' Deep	$500.00	$10,000.00
W56	350.2	4	EA	6" MJ Bell Restraint 5'-8' Deep	$550.00	$2,200.00
W57	350.2	10	EA	8" MJ Bell Restraint 0'-5' Deep	$550.00	$5,500.00
W58	350.2	2	EA	8" MJ Bell Restraint 5'-8' Deep	$600.00	$1,200.00
W59	350.2	5	EA	10" MJ Bell Restraint 0'-5' Deep	$650.00	$3,250.00
W60	350.2	2	EA	10" MJ Bell Restraint 5'-8' Deep	$700.00	$1,400.00
W61	350.3	50	EA	Mechanical Saddle, up to 1" service, short side up to 20', 6" OD HDPE, 0'-5' Deep	$950.00	$47,500.00

W62	350.3	5	EA	Mechanical Saddle, up to 1" service, short side up to 20', 6" OD HDPE, 5'-8' Deep	$1,050.00	$5,250.00
W63	350.3	100	EA	Mechanical Saddle, up to 1" service, short side up to 20', 8" OD HDPE, 0'-5' Deep	$1,000.00	$100,000.00
W64	350.3	10	EA	Mechanical Saddle, up to 1" service, short side up to 20', 8" OD HDPE, 5'-8' Deep	$1,100.00	$11,000.00
W65	350.3	50	EA	Mechanical Saddle, up to 1" service, short side up to 20', 10" OD HDPE, 0'-5' Deep	$1,100.00	$55,000.00
W66	350.3	4	EA	Mechanical Saddle, up to 1" service, short side up to 20', 10" OD HDPE, 5'-8' Deep	$1,200.00	$4,800.00
W67	350.3	20	EA	Mechanical Saddle, up to 1" service, short side up to 20', 12" OD HDPE, 0'-5' Deep	$1,300.00	$26,000.00
W68	350.3	2	EA	Mechanical Saddle, up to 1" service, short side up to 20', 12" OD HDPE, 5'-8' Deep	$1,400.00	$2,800.00
W69	350.3	50	EA	Mechanical Saddle, up to 1" service, long side up to 40', 6" OD HDPE, 0'-5' Deep	$1,350.00	$67,500.00
W70	350.3	5	EA	Mechanical Saddle, up to 1" service, long side up to 40', 6" OD HDPE, 5'-8' Deep	$1,450.00	$7,250.00
W71	350.3	100	EA	Mechanical Saddle, up to 1" service, long side up to 40', 8" OD HDPE, 0'-5' Deep	$1,450.00	$145,000.00
W72	350.3	10	EA	Mechanical Saddle, up to 1" service, long side up to 40', 8" OD HDPE, 5'-8' Deep	$1,550.00	$15,500.00
W73	350.3	50	EA	Mechanical Saddle, up to 1" service, long side up to 40', 10" OD HDPE, 0'-5' Deep	$1,550.00	$77,500.00
W74	350.3	4	EA	Mechanical Saddle, up to 1" service, long side up to 40', 10" OD HDPE, 5'-8' Deep	$1,650.00	$6,600.00
W75	350.3	20	EA	Mechanical Saddle, up to 1" service, long side up to 40', 12" OD HDPE, 0'-5' Deep	$1,700.00	$34,000.00
W76	350.3	2	EA	Mechanical Saddle, up to 1" service, long side up to 40', 12" OD HDPE, 5'-8' Deep	$1,800.00	$3,600.00
W77	351.3	50	EA	4" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$1,200.00	$60,000.00
W78	351.3	5	EA	4" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$1,300.00	$6,500.00
W79	351.3	100	EA	6" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$2,000.00	$200,000.00
W80	351.3	10	EA	6" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$2,100.00	$21,000.00
W81	351.3	50	EA	8" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$3,000.00	$150,000.00
W82	351.3	4	EA	8" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$3,100.00	$12,400.00
W83	351.3	20	EA	10" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$4,500.00	$90,000.00
W84	351.3	2	EA	10" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$4,600.00	$9,200.00
W85	351.5	50	EA	Fire Hydrant	$5,500.00	$275,000.00
W86	407.6	100	EA	Remove Existing Fitting or Valve, 0'-5' Deep	$100.00	$10,000.00
W87	407.6	10	EA	Remove Existing Fitting or Valve, 5'-8' Deep	$150.00	$1,500.00
W88	750.7	10000	LF	Locate Wire	$3.75	$37,500.00
F1	750.2	2000	LF	4" ID Force Main Pipe Bursting to 6" OD DR-11, HDPE, 0' - 5' Deep	$127.00	$254,000.00
F2	750.2	200	LF	4" ID Force Main Bursting to 6" OD DR-11, HDPE, 5' - 8' Deep	$137.00	$27,400.00
F3	750.2	2000	LF	6" ID Force Main Bursting to 8" OD DR-11, HDPE, 0' - 5' Deep	$135.00	$270,000.00
F4	750.2	200	LF	6" ID Force Main Pipe Bursting to 8" OD DR-11, HDPE, 5' - 8' Deep	$145.00	$29,000.00
F5	750.2	1000	LF	8" ID Force Main Pipe Bursting to 10" OD DR-11, HDPE , 0' - 5' Deep	$147.00	$147,000.00
F6	750.2	100	LF	8" ID Force Main Pipe Bursting to 10" OD DR-11, HDPE, 5' - 8' Deep	$157.00	$15,700.00
F7	750.2	1000	LF	10" ID Force Main Pipe Bursting to 12" OD DR-11, HDPE , 0' - 5' Deep	$167.00	$167,000.00
F8	750.2	100	LF	10" ID Force Main Bursting to 12" OD DR-11, HDPE , 5' - 8' Deep	$177.00	$17,700.00
F9	750.2	40	EA	6" HDPE to 4" DI Reducer, 0'-5' Deep	$450.00	$18,000.00
F10	750.2	8	EA	6" HDPE to 4" DI Reducer, 5'-8' Deep	$550.00	$4,400.00
F11	750.2	50	EA	8" HDPE to 6" DI Reducer, 0'-5' Deep	$500.00	$25,000.00
F12	750.2	8	EA	8" HDPE to 6" DI Reducer, 5'-8' Deep	$600.00	$4,800.00
F13	750.2	20	EA	10" HDPE to 8" DI Reducer, 0'-5' Deep	$600.00	$12,000.00
F14	750.2	4	EA	10" HDPE to 8" DI Reducer, 5'-8' Deep	$700.00	$2,800.00
F15	750.2	10	EA	12" HDPE to 10" DI Reducer, 0'-5' Deep	$750.00	$7,500.00
F16	750.2	2	EA	12" HDPE to 10" DI Reducer, 5'-8' Deep	$950.00	$1,900.00
F17	429.2	20	EA	4" Bend or Sleeve, MJ, DI, Epoxy Lined, 0'-5' Deep	$450.00	$9,000.00
F18	429.2	4	EA	4" Bend or Sleeve, MJ, DI, Epoxy Lined, 5'-8' Deep	$550.00	$2,200.00
F19	429.2	20	EA	6" Bend or Sleeve, MJ, DI, Epoxy Lined, 0'-5' Deep	$500.00	$10,000.00
F20	429.2	4	EA	6" Bend or Sleeve, MJ, DI, Epoxy Lined, 5'-8' Deep	$600.00	$2,400.00
F21	429.2	10	EA	8" Bend or Sleeve, MJ, DI, Epoxy Lined, 0'-5' Deep	$600.00	$6,000.00
F22	429.2	2	EA	8" Bend or Sleeve, MJ, DI, Epoxy Lined, 5'-8' Deep	$700.00	$1,400.00
F23	429.2	5	EA	10" Bend or Sleeve, MJ, DI, Epoxy Lined, 0'-5' Deep	$750.00	$3,750.00
F24	429.2	2	EA	10" Bend or Sleeve, MJ, DI, Epoxy Lined, 5'-8' Deep	$950.00	$1,900.00
F25	429.2	20	EA	4"x4"x4" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,250.00	$25,000.00
F26	429.2	4	EA	4"x4"x4" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,350.00	$5,400.00
F27	429.2	20	EA	6"x6"x4" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,350.00	$27,000.00
F28	429.2	4	EA	6"x6"x4" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,450.00	$5,800.00
F29	429.2	20	EA	6"x6"x6" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,400.00	$28,000.00
F30	429.2	4	EA	6"x6"x6" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,500.00	$6,000.00
F31	429.2	10	EA	8"x8"x4" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,500.00	$15,000.00
F32	429.2	2	EA	8"x8"x4" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,600.00	$3,200.00
F33	429.2	10	EA	8"x8"x6" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,550.00	$15,500.00
F34	429.2	2	EA	8"x8"x6" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,650.00	$3,300.00
F35	429.2	10	EA	8"x8"x8" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,800.00	$18,000.00
F36	429.2	2	EA	8"x8"x8" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,900.00	$3,800.00
F37	429.2	10	EA	10"x10"x4" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$1,900.00	$19,000.00
F38	429.2	2	EA	10"x10"x4" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$1,950.00	$3,900.00
F39	429.2	10	EA	10"x10"x6" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$2,000.00	$20,000.00
F40	429.2	2	EA	10"x10"x6" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$2,100.00	$4,200.00

F41	429.2	10	EA	10"x10"x8" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$2,050.00	$20,500.00
F42	429.2	2	EA	10"x10"x8" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$2,150.00	$4,300.00
F43	429.2	5	EA	10"x10"x10" Tee, MJ, DI, Epoxy Lined, 0'-5' Deep	$2,150.00	$10,750.00
F44	429.2	2	EA	10"x10"x10" Tee, MJ, DI, Epoxy Lined, 5'-8' Deep	$2,250.00	$4,500.00
F45	429.2	20	EA	4" Plug or Cap, MJ, DI, Epoxy Lined, 0'-5' Deep	$400.00	$8,000.00
F46	429.2	4	EA	4" Plug or Cap, MJ, DI, Epoxy Lined, 5'-8' Deep	$500.00	$2,000.00
F47	429.2	20	EA	6" Plug or Cap, MJ, DI, Epoxy Lined, 0'-5' Deep	$450.00	$9,000.00
F48	429.2	4	EA	6" Plug or Cap, MJ, DI, Epoxy Lined, 5'-8' Deep	$550.00	$2,200.00
F49	429.2	10	EA	8" Plug or Cap, MJ, DI, Epoxy Lined, 0'-5' Deep	$500.00	$5,000.00
F50	429.2	2	EA	8" Plug or Cap, MJ, DI, Epoxy Lined, 5'-8' Deep	$550.00	$1,100.00
F51	429.2	5	EA	10" Plug or Cap, MJ, DI, Epoxy Lined, 0'-5' Deep	$600.00	$3,000.00
F52	429.2	2	EA	10" Plug or Cap, MJ, DI, Epoxy Lined, 5'-8' Deep	$650.00	$1,300.00
F53	429.2	20	EA	4" MJ Bell Restraint 0'-5' Deep	$450.00	$9,000.00
F54	429.2	4	EA	4" MJ Bell Restraint 5'-8' Deep	$500.00	$2,000.00
F55	429.2	20	EA	6" MJ Bell Restraint 0'-5' Deep	$500.00	$10,000.00
F56	429.2	4	EA	6" MJ Bell Restraint 5'-8' Deep	$550.00	$2,200.00
F57	429.2	10	EA	8" MJ Bell Restraint 0'-5' Deep	$550.00	$5,500.00
F58	429.2	2	EA	8" MJ Bell Restraint 5'-8' Deep	$600.00	$1,200.00
F59	429.2	5	EA	10" MJ Bell Restraint 0'-5' Deep	$650.00	$3,250.00
F60	429.2	2	EA	10" MJ Bell Restraint 5'-8' Deep	$700.00	$1,400.00
F61	430.2	20	EA	4" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$1,200.00	$24,000.00
F62	430.2	5	EA	4" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$1,300.00	$6,500.00
F63	430.2	20	EA	6" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$2,000.00	$40,000.00
F64	430.2	5	EA	6" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$2,100.00	$10,500.00
F65	430.2	10	EA	8" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$3,000.00	$30,000.00
F66	430.2	2	EA	8" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$3,100.00	$6,200.00
F67	430.2	5	EA	10" MJ Gate Valve with CI valve box & cap, 0'-5' Deep	$4,500.00	$22,500.00
F68	430.2	2	EA	10" MJ Gate Valve with CI valve box & cap, 5'-8' Deep	$4,600.00	$9,200.00
F69	407.6	100	EA	Remove Existing Fitting or Valve, 0'-5' Deep	$100.00	$10,000.00
F70	407.6	10	EA	Remove Existing Fitting or Valve, 5'-8' Deep	$150.00	$1,500.00
F71	750.4	10	EA	2" ARV with Polymer Manhole	$7,500.00	$75,000.00
F72	750.7	10000	LF	Locate Wire	$3.75	$37,500.00
1	427.1	3	EA	Type “A” Manhole (0’ – 4’ Deep)	$3,500.00	$10,500.00
2	427.1	1	EA	Type “A” Manhole (2’ Increment adder)	$700.00	$700.00
8	427.1	1	EA	Remove and Construct Type “A” Manhole (0’ – 4’ Deep)	$3,570.00	$3,570.00
9	427.1	1	EA	Remove and Construct Type “A” Manhole (2’ Increment adder)	$742.00	$742.00
14	427.3	150	EA	Connection to Existing Manhole (New HDPE Pipe)	$315.00	$47,250.00
15	427.3	3	EA	Connection to Existing Manhole 6” Service Lateral	$140.00	$420.00
16	427.4	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (0' - 4' Deep)	$273.00	$5,460.00
17	427.4	30	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (4' - 8' Deep)	$294.00	$8,820.00
18	428.1	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (8' - 12' Deep)	$308.00	$6,160.00
19	428.1	20	LF	Sanitary Sewer Remove & Replace 6" – 12", PVC (12' – 16' Deep)	$910.00	$18,200.00
24	428.6	100	LF	Yard Piping – 4”	$1.40	$140.00
25	428.6	100	LF	Yard Piping – 6”	$1.40	$140.00
26	931.1	500	LF	Sewer Pipe Bursting 6" to 7.125 OD SDR 19, HDPE Pipe, 0' - 4' Deep	$67.90	$33,950.00
27	931.1	500	LF	Sewer Pipe Bursting 6" to 7.125 OD SDR 19, HDPE Pipe, 4' - 8' Deep	$69.30	$34,650.00
28	931.1	1500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 0' - 4' Deep	$70.00	$105,000.00
29	931.1	15000	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 4' - 8' Deep	$75.60	$1,134,000.00
30	931.1	5000	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 8' - 12' Deep	$83.30	$416,500.00
34	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 4' – 8' Deep	$88.20	$44,100.00
35	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 8' – 12 Deep	$110.60	$55,300.00
36	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 12' – 16' Deep	$114.80	$57,400.00
39	931.1	500	LF	Sewer Pipe Bursting 8” - 10” to 12.75 OD SDR 17, HDPE Pipe, 4' – 8' Deep	$121.80	$60,900.00
40	931.1	500	LF	Sewer Pipe Bursting 8” - 10” to 12.75 OD SDR 17, HDPE Pipe, 8' – 12' Deep	$128.80	$64,400.00
41	931.1	500	LF	Sewer Pipe Bursting 8” - 10” to 12.75 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$133.00	$66,500.00
43	931.1	500	LF	Sewer Pipe Bursting 10” - 12” to 12.75 OD SDR 17, HDPE Pipe, 0' – 4' Deep	$107.80	$53,900.00
44	931.1	500	LF	Sewer Pipe Bursting 10” - 12” to 12.75 OD SDR 17, HDPE Pipe, 4' – 8' Deep	$121.80	$60,900.00
45	931.1	500	LF	Sewer Pipe Bursting 10” – 12” to 12.75 OD SDR 17, HDPE Pipe, 8' – 12 Deep	$133.00	$66,500.00
46	931.1	500	LF	Sewer Pipe Bursting 10” - 12” to 12.75 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$138.60	$69,300.00
48	931.1	500	LF	Sewer Pipe Bursting 12” – 16” to 17.40 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$110.60	$55,300.00
49	931.1	500	LF	Sewer Pipe Bursting 12” - 16” to 17.40 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$134.40	$67,200.00
51	931.1	500	LF	Sewer Pipe Bursting 16” - 18” to 19.50 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$137.90	$68,950.00
52	931.1	500	LF	Sewer Pipe Bursting 16” – 18” to 19.50 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$161.00	$80,500.00
		50	LF	Incremental Cost for Ductile Iron 6"	$35.00	$1,750.00
		10	LF	Incremental Cost for Ductile Iron 8"	$140.00	$1,400.00
		10	LF	Incremental Cost for Ductile Iron 10"	$140.00	$1,400.00
		10	LF	Incremental Cost for Ductile Iron 12"	$140.00	$1,400.00

		10	LF	Incremental Cost for Ductile Iron >12 - 18"	$140.00	$1,400.00
60	931.1	10000	LF	3” – 8” Sewer Service Lateral to 4.5”, 6.625”, 9.05” OD SDR 19, HDPE or 6” or 8” PVC SDR35 Conforming to ASTM D3034-74 (All Depths)	$25.20	$252,000.00
61	931.1	25	EA	Sewer Lateral Connection @ mainline 8” – 18” HDPE, 0’ – 4’ Deep	$1,400.00	$35,000.00
62	931.1	300	EA	Sewer Lateral Connection @ mainline 8” – 18” HDPE, 4’ – 8’ Deep	$1,470.00	$441,000.00
63	931.1	25	EA	Sewer Lateral Connection @ mainline 8” – 18” HDPE, 8’ – 12’ Deep	$1,750.00	$43,750.00
66	931.1	10	EA	Sewer Lateral Connection @ mainline 8” – 18” HDPE, (Within existing Pit - All Depths)	$63.00	$630.00
67	931.1	10	EA	Sewer Lateral Connection @ Right of way 4” – 8” HDPE, 0’ – 4’ Deep	$441.00	$4,410.00
68	931.1	10	EA	Sewer Lateral Connection @ Right of way 4” – 8” HDPE, 4’ – 8’ Deep	$721.00	$7,210.00
69	931.1	5	EA	Sewer Lateral Connection @ Right of way 4” – 8” HDPE, 8’ – 12’ Deep	$1,001.00	$5,005.00
74	932	30	EA	Manhole Frame and Grade Adjustment, Up to Two Feet	$973.00	$29,190.00
75	932	2	VF	Manhole Frame and Grade Adjustment, Excess Over Two Feet	$140.00	$280.00
79	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6” – 12” PVC (0' - 4' Deep)	$2,100.00	$10,500.00
80	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6” – 12” PVC (4' – 8' Deep)	$2,800.00	$14,000.00
81	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6” – 12” PVC (8' - 12' Deep)	$3,710.00	$18,550.00
82	7.3.24.	5	EA	Sanitary Sewer Point Repairs 6” – 12” PVC (12' – 16' Deep)	$3,850.00	$19,250.00
87	947	10	EA	Cleanout (4" to 8" pipe)	$1,470.00	$14,700.00
88	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (0'- 4' LF)	$14.00	$14.00
89	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (4'- 8' LF)	$14.00	$14.00
90	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (8'-12' LF)	$14.00	$14.00
91	990	1	VF	Install Drop Connection in Manhole For 6"-8" Pipe Size (12'-16' LF)	$14.00	$14.00
99	998	1	EA	Conflict Encasement--Class 1	$490.00	$490.00
100	998	1	EA	Conflict Encasement--Class 2	$490.00	$490.00
101	998	5	EA	Conflict Encasement w/ manhole--Class 3	$490.00	$2,450.00
102	408-4	100	CY	A-3 Soil Backfill	$156.80	$15,680.00
103	408-4	100	CY	Flowable Fill	$168.00	$16,800.00
104	441-1	1000	SY	Sodding	$15.40	$15,400.00
105	960	500	SY	Remove and Replace Sidewalk (All Types and Thickness)	$203.00	$101,500.00
106	960	100	SY	Remove and Replace Concrete or Asphalt Driveway (All Thickness)	$217.00	$21,700.00
107	960	50	LF	Remove and Replace Curb & Gutter (All Types)	$128.80	$6,440.00
108	7.3.22.	1000	SY	Paving Removal & Repair – Cross Cut & Patch to City, County, or State standard, as applicable.	$85.85	$85,848.00
108A		1556	SY	Temporary Asphalt/Cold Patch-1" Thickness	$270.00	$420,000.00
109	6.9.6.	1	LS	Testing Allowance	$2,800.00	$2,800.00
110	6.12.5.	1	LS	Supplemental Work Authorization (SWA)	$140,000.00	$140,000.00

ESTIMATED TOTAL COST BASE BID: $4,429,831.00

061-19 Pipe Bursting Unit Price Construction

Only complete prices in yellow cells.

CONTINGENCY ITEMS

Item No.	Spec No.	Est. Qty.	Units	Description	Unit Price	Total Price
3	427.1	1	EA	Type “B” Manhole (0’ – 4’ Deep)	$4,900.00	$4,900.00
4	427.1	1	EA	Type “B” Manhole (2’ Increment adder)	$945.00	$945.00
5	427-1	1	EA	Type “C” Manhole (0’ – 4’ Deep)	$4,200.00	$4,200.00
6	427.1	1	EA	Fiberglass Manhole 48” Diameter (0’ – 4’ Deep)	$3,290.00	$3,290.00
7	427.1	1	EA	Fiberglass Manhole 48”Diameter (2’ Increment adder)	$490.00	$490.00
10	427.3	1	EA	Remove and Construct Type “B” Manhole (0’ – 4’ Deep)	$4,900.00	$4,900.00
11	427.3	1	EA	Remove and Construct Type “B” Manhole (2’ Increment adder)	$910.00	$910.00
12	427.3	1	EA	Remove and Construct 48” Diameter Fiberglass Manhole (0’ – 4’ Deep)	$4,900.00	$4,900.00
13	427.3	1	EA	Remove & Construct 48” Diameter Fiberglass Manhole (2’ Increment adder)	$490.00	$490.00
20	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (0' - 4' Deep)	$455.00	$9,100.00
21	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (4' - 8' Deep)	$490.00	$9,800.00
22	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (8' – 12' Deep)	$525.00	$10,500.00
23	428.1	20	LF	Sanitary Sewer Remove & Replace 14" – 18", PVC (12' – 16' Deep)	$665.00	$13,300.00
31	931.1	500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 12' – 16' Deep	$140.00	$70,000.00
32	931.1	500	LF	Sewer Pipe Bursting 6" – 8" to 9.05 OD SDR 19, HDPE Pipe, 16' – 20' Deep	$280.00	$140,000.00
33	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 0' – 4' Deep	$88.90	$44,450.00
37	931.1	500	LF	Sewer Pipe Bursting 8" – 10" to 11.10 OD SDR 19, HDPE Pipe, 16' – 20' Deep	$315.00	$157,500.00
38	931.1	500	LF	Sewer Pipe Bursting 8” - 10” to 12.75 OD SDR 17, HDPE Pipe, 0' – 4' Deep	$123.20	$61,600.00
42	931.1	500	LF	Sewer Pipe Bursting 8” - 10” to 12.75 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$350.00	$175,000.00
47	931.1	500	LF	Sewer Pipe Bursting 10” - 12” to 12.75 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$385.00	$192,500.00
50	931.1	500	LF	Sewer Pipe Bursting 12” - 16” to 17.40 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$525.00	$262,500.00
53	931.1	500	LF	Sewer Pipe Bursting 16” – 18” to 19.50 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$595.00	$297,500.00
54	931.1	500	LF	Sewer Pipe Bursting 18” - 20” to 21.60 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$315.00	$157,500.00

55	931.1	500	LF	Sewer Pipe Bursting 18” - 20” to 21.60 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$350.00	$175,000.00
56	931.1	500	LF	Sewer Pipe Bursting 18” - 20” to 21.60 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$609.00	$304,500.00
57	931.1	500	LF	Sewer Pipe Bursting 20” - 24” to 25.80 OD SDR 17, HDPE Pipe, 0' – 12' Deep	$343.00	$171,500.00
58	931.1	500	LF	Sewer Pipe Bursting 20” - 24” to 25.80 OD SDR 17, HDPE Pipe, 12' – 16' Deep	$357.00	$178,500.00
59	931.1	500	LF	Sewer Pipe Bursting 20” - 24” to 25.80 OD SDR 17, HDPE Pipe, 16' – 20' Deep	$700.00	$350,000.00
64	931.1	10	EA	Sewer Lateral Connection @ mainline 8” – 18” HDPE, 12’ – 16’ Deep	$8,400.00	$84,000.00
65	931.1	10	EA	Sewer Lateral Connection @ mainline 8” – 18” HDPE, 16’ – 20’ Deep	$9,800.00	$98,000.00
70	934	10	EA	Lateral Connection Deemed Inactive (0’ – 5’ Deep)	$700.00	$7,000.00
71	934	10	EA	Lateral Connection Deemed Inactive (5’ – 8’ Deep)	$1,400.00	$14,000.00
72	934	10	EA	Lateral Connection Deemed Inactive (8’ – 12’ Deep)	$1,750.00	$17,500.00
73	934	10	EA	Lateral Connection Deemed Inactive (12’ – 16’ Deep)	$3,500.00	$35,000.00
76	936	100	LF	Mainline cleaning only 6”-12” Dia. pipe	$7.00	$700.00
77	936	100	LF	CCTV and Light Clean 8” – 15” Dia pipe	$9.80	$980.00
78	936	100	LF	CCTV and Light Clean 18” – 24” Dia pipe	$14.00	$1,400.00
83	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14” – 24” PVC (0' – 4' Deep)	$5,320.00	$5,320.00
84	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14” – 24” PVC (4' – 8' Deep)	$6,720.00	$6,720.00
85	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14” – 24” PVC (8' – 12' Deep)	$8,120.00	$8,120.00
86	7.3.24.	1	EA	Sanitary Sewer Point Repairs 14” – 24” PVC (12' – 16' Deep)	$9,520.00	$9,520.00
92	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (0'- 4' LF)	$154.00	$154.00
93	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (4'-8' LF)	$161.00	$161.00
94	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (8'-12' LF)	$105.00	$105.00
95	990	1	VF	Install Drop Connection in Manhole For 10"-12" Pipe Size (12'-16' LF)	$105.00	$105.00
96	990	1	VF	Install Drop Connection in Manhole For 15"-18" Pipe Size (0'- 4' LF)	$140.00	$140.00
97	990	1	VF	Install Drop Connection in Manhole For 15"-18" Pipe Size (4'-8' LF)	$140.00	$140.00
98	990	1	VF	Install Drop Connection in Manhole For 15"-18" Pipe Size (8'-12' LF)	$105.00	$105.00

ESTIMATED TOTAL COST CONTIGENCY ITEMS: $3,094,945.00

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 6

Formal Bid and Award System

Award #6 January 5, 2023

Type of Award Request: CONTRACT INCREASE
Requestor Name: Willoughby, Mickey L.
Requestor Phone: (865) 661-7494
Project Title: Engineering Services for the RiverTown Water Treatment Plant Project
Project Number: 8003981
Project Location: JEA
Funds: Capital
Business Unit Estimate: N/A

Scope of Work:

The scope of engineering services for this project includes preliminary design, final detailed design, permitting support, engineering services during construction and engineering services during startup of the RiverTown Water Treatment Plant (WTP) Project. The project includes a new water treatment plant including two production wells, provisions for an optional third well as a backup well, well head assemblies, raw water pipelines, ground storage tank with tray aerators and powered ventilators for sulfide treatment, high service pump building, high service pump system with five (5) variable-frequency drive controlled high service pumps of various capacities, sodium hypochlorite storage and injection system, electrical power and controls, emergency generator, access roads, security and fire alarm features, storm water management features, SCADA system and associated features.

The RiverTown area, which is located in JEA's South Grid, is undergoing significant population and housing growth. The water demand from this growth will exceed the capacity of the existing water treatment and distribution facilities. Therefore, the RiverTown WTP Project is being implemented to provide additional potable water treatment and production/distribution capacity in JEA's South Grid including the RiverTown area of St. Johns County. This project will be delivered using traditional Design-Bid-Build.

JEA IFB/RFP/State/City/GSA#: 141-18
Purchasing Agent: Kruck, Dan
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
CDM SMITH INC.	Shayne Wood	woodsh @cdmsmith.com	4651 Salisbury Road, Suite 420, Jacksonville, FL 32256	(904) 504-3621	$29,025.00

Amount of Original Award: $2,000,605.00
Date of Original Award: 08/15/2019
Contract Increase Amount: $29,025.00
List of Previous Amendments:

CPA #	Amount	Date	Reason
181723	$19,785.00	02/20/2020	SJRWMD required additional groundwater modeling prior to well drilling
181723	$41,594.00	04/20/2020	Additional engineering to add a retaining wall to avoid additional easement purchase; and additional geotechnical borings
181723	$72,524.00	05/29/2020	Added design services for stormwater treatment as required by FDEP and preparation of a special use permit as required by St. Johns County Development review committee
181723	$35,030.00	11/10/2020	Additional design, site-planning, and coordination meetings due to discussions with site developer and JEA's insurance company
181723	$12,137.00	11/18/2021	Additional services during construction due to longer than anticipated construction schedule

New Not-To-Exceed Amount: $2,210,700.00
Length of Contract/PO Term: Project Completion
Begin Date: 05/09/2019
End Date: Project Completion (Expected: November 2023)
JSEB Evaluation Criteria: Five Percent (5%)

Original Award
CSI Geo (Geotechnical) – 1.65%
RE Holland (Survey) – 4.58%
Four Waters Engineering (Civil Engineering) – 3.56%

This Contract Increase
N/A

Background/Recommendations:

Originally approved by Awards Committee on 04/18/2019 in the amount of $2,000,605.00 to CDM Smith Inc. A copy of the original award is attached for reference. Multiple administrative increases have been made to this contract as detailed in the table above.

Originally construction for the new RiverTown WTP was to be substantially complete in January 2023. Construction has been delayed due to raw material and equipment un-availability. This delay will cause the plant to not be operational during the typical high water demand season. To ensure water availability in this service area JEA has developed an interim plan to increase pressure and flow in this area until the plant is fully operational. For this interim plan to proceed JEA must submit modified permits from FDEP and St. Johns County. This contract increase funds the tasks listed below for CDM Smith Inc. to assist JEA in implementing this plan.

- FDEP Minor Modification Permit Package that addresses the partial start-up of the RiverTown WTP and temporary booster pump station at 1310 Roberts Road
- St. Johns County Building Permit Phasing Plan that addresses the evolution of the site from temporary measures needed to produce water through final permanent infrastructure as originally planned for the site
- On-going coordination and bi-weekly conference calls with OWNER and Contractor to discuss construction progress and alignment and interfacing with partial plant start-up activities and scheduling
- As-needed technical assistance and support required by the OWNER to develop, coordinate and execute the interim start-up plans and additional regulatory coordination

Request approval to award a contract increase to CDM Smith Inc. for additional engineering and consulting for the RiverTown Water Treatment Plant Project in the amount of $29,025.00, for a new not-to-exceed amount of $2,210,700.00, subject to the availability of lawfully appropriated funds.

Manager:	Phillips, Brian R. – Mgr. W/WW Project Management
Senior Manager:	Doherty, Peter F. – Senior Manger Project Management
Director:	Conner, Sean M. – Dir. W/WW Project Engineering & Construction
VP:	Melendez, Pedro A. – VP Planning Engineering & Construction

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

Approved by the JEA Awards Committee

Date: 04/18/2019 Item# 3

Formal Bid and Award System

CPA 181723

Award #3 April 18, 2019

Type of Award Request:	PROPOSAL (RFP)
Request #:	6341
Requestor Name:	Willoughby, Mickey L.
Project Title:	Engineering Services for the Rivertown Water Treatment Plant Project
Project Number:	8003981
Project Location:	JEA
Funds:	Capital
Budget Estimate:	$2,000,000.00

Scope of Work:

The scope of engineering services for this project includes preliminary design, final detailed design, permitting support, engineering services during construction and engineering services during startup of the Rivertown Water Treatment Plant (WTP) Project. The project includes a new water treatment plant including two production wells, provisions for an optional third well as a backup well, well head assemblies, raw water pipelines, ground storage tank with tray aerators and powered ventilators for sulfide treatment, high service pump building, high service pump system with five (5) variable-frequency drive controlled high service pumps of various capacities, sodium hypochlorite storage and injection system, electrical power and controls, emergency generator, access roads, security and fire alarm features, storm water management features, SCADA system and associated features.

The Rivertown area, which is located in JEA's South Grid, is undergoing significant population and housing growth. The water demand from this growth will exceed the capacity of the existing water treatment and distribution facilities. Therefore, the Rivertown WTP Project is being implemented to provide additional potable water treatment and production/distribution capacity in JEA's South Grid including the Rivertown area of St. Johns County. This project will be delivered using traditional Design-Bid-Build.

This award positively impacts the following JEA Measures of Value:

- Customer Value – provides high quality and reliable potable water supply to customers in the RiverTown area of JEA's South Grid.
- Community Value - provides high quality and reliable potable water supply to the Rivertown area of JEA's South Grid.
- Environmental Value – provides high quality potable water meeting environmental regulatory requirements.
- Financial Value – the project will provide revenue through sales of potable water.

JEA IFB/RFP/State/City/GSA#:	141-18
Purchasing Agent:	Kruck, Daniel R.
Is this a Ratification?:	NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
CDM SMITH INC.	Patrick Victor	victorpr@cdmsmith.com	4651 Salisbury Road, Suite 420, Jacksonville, FL 32256	(904) 504-3621	$2,000,605.00

Amount for entire term of Contract/PO: $2,000,605.00

Award Amount for remainder of this FY: $576,139.00

Length of Contract/PO Term: Project Completion

Begin Date (mm/dd/yyyy): 05/09/2019

End Date (mm/dd/yyyy): Project Completion (Expected: February 2022)

JSEB Requirement: Five Percent (5%) Evaluation Criteria

Comments on JSEB Requirements:

CSI Geo (Geotechnical) – 1.65%
RE Holland (Survey) – 4.58%
Four Waters Engineering (Civil Engineering) – 3.56%
Total: 9.79%

PROPOSERS:

Name	Amount	Rank
CDM SMITH INC.	$2,000,605.00	1
CONSTANTINE ENGINEERING INC.	N/A	2
WRIGHT-PIERCE INC.	N/A	3
AECOM TECHNICAL SERVICES, INC.	N/A	4

Background/Recommendations:

Advertised on 08/24/2018. Six (6) prime companies attended the mandatory pre-proposal meeting held on 09/04/2018. At proposal opening on 10/16/2018, JEA received four (4) Proposals. The public evaluation meeting was held on 01/04/2019 and JEA deemed CDM Smith Inc. most qualified to perform the work. A copy of the evaluation matrix and negotiated fees are attached as backup.

This project will be split into two (2) separate design/construction packages. The first construction bid package will be for three (3) new wells (two (2) production wells and one (1) optional backup well to feed the WTP. The second bid package will be for the construction of the WTP. The construction packages are split into separate bids due to the specialized nature of the well contracting and the need to promptly obtain additional groundwater quality characterization data from the first production well for finalizing the treatment processes for the water treatment plant.

The total negotiated fee is deemed reasonable when compared to JEA's estimate. Cost savings of $134,368.00 from the original proposed price were realized through negotiations. The project budget will be updated once the construction award is made.

Project Budget and Schedule Details:

- Total Project Budget: $15,605,406.00

- Construction Budget Estimate (at the time of Proposal): $13,460,000.00
- Engineering Budget Estimate (at the time of Proposal): $2,000,000.00
- Total Engineering Cost: $2,000,605.00
    - Engineering Design Services (Phases 1 and 2): $1,213,831.00 (9.0% of estimated construction costs)
    - Engineering Services During Construction: $493,610.00 (3.7% of estimated construction costs)
    - Well construction inspection services: $191,332.00 (1.4% of estimated construction costs)
    - Construction Inspection Services: $101,832.00 (0.8% of estimated construction costs)
- Engineering Firm: CDM Smith Inc.
- Project Completion Key Dates (Estimated):
    - Design Start: May 2019
    - Design Completion: February 2020
    - Well Construction Start: March 2020
    - Well Construction Completion: May 2021
    - WTP Construction Start: August 2020
    - WTP Construction Completion: February 2022

141-18 - Request approval to award a contract to CDM Smith Inc., for engineering services for the Rivertown Water Treatment Plant project in the amount of $2,000,605.00, subject to the availability of lawfully appropriated funds.

Director: Conner, Sean M. - Dir W/WW Project Engineering & Construction
VP: Calhoun, Deryle I. - VP/GM Water Wastewater Systems

APPROVALS:

4/18/19

Chairman, Awards Committee **Date**

4/18/19

Manager, Capital Budget Planning **Date**

141-18 Engineering Services for the Rivertown Water Treatement Plant Project

Vendor Rankings	Mickey Willoughby	Michael Hersey	Shawn Arnold	Σ Rank	Overall Rank
CDM Smith	1	1	1	3	1
Constantine Engineering	2	2	2	6	2
Wright-Pierce	3	4	3	10	3
AECOM	4	3	4	11	4

Mickey Willoughby	Professional Staff Experience (30 Points)	Design Approach and Work Plan (40 Points)	Company Experience (20 Points)	Proximity to JEA (5 Points)	JSEB (5 Points)	Total	Rank
AECOM	26.56	26	19	4	4	79.56	4
CDM Smith	28.48	38	20	5	4	95.48	1
Constantine Engineering	26.64	40	18	5	4	93.64	2
Wright-Pierce	26.08	38	15	4	4	87.08	3

Michael Hersey	Professional Staff Experience (30 Points)	Design Approach and Work Plan (40 Points)	Company Experience (20 Points)	Proximity to JEA (5 Points)	JSEB (5 Points)	Total	Rank
AECOM	26.8	30	17	4	4	81.80	3
CDM Smith	28.08	36	18	5	4	91.08	1
Constantine Engineering	25.2	34	16	5	4	84.20	2
Wright-Pierce	25.84	29	15	4	4	77.84	4

Shawn Arnold	Professional Staff Experience (30 Points)	Design Approach and Work Plan (40 Points)	Company Experience (20 Points)	Proximity to JEA (5 Points)	JSEB (5 Points)	Total	Rank
AECOM	27.04	20	11	4	4	66.04	4
CDM Smith	27.16	22	12	5	4	70.16	1
Constantine Engineering	27.24	21.5	11.5	5	4	69.24	2
Wright-Pierce	26.6	21.5	11	4	4	67.10	3

Overall Averages	Professional Staff Experience (30 Points)	Design Approach and Work Plan (40 Points)	Company Experience (20 Points)	Proximity to JEA (5 Points)	JSEB (5 Points)	Total
AECOM	26.80	25.33	15.67	4.00	4.00	75.80
CDM Smith	27.91	32.00	16.67	5.00	4.00	85.57
Constantine Engineering	26.36	31.83	15.17	5.00	4.00	82.36
Wright-Pierce	26.17	29.50	13.67	4.00	4.00	77.34

ATTACHMENT B - FEE TABLE

RiverTown Water Treatment Plant	Subconsultant - Well Engineering (Included as Lump Sum)	ODCs (Included as Lump Sum)	TOTAL HOURS	TOTAL Labor COST
Well Package: Production Well Nos. 1, 2 and Backup Well (Well No. 3) - Well Drilling				
Task 1 - 30 Percent Design Completion Stage	**$ 17,458**	**$ -**	**0**	**$ -**
1.1 - Permitting	$ 7,729	$ -	0	$ -
1.2 - Construction and Testing Plan Document	$ 9,730	$ -	0	$ -
Task 2 - 90 Percent Design Stage	**$ 12,000**	**$ -**	**0**	**$ -**
Task 3 - 100-Percent/IFB Design Stage	**$ 4,466**	**$ -**	**0**	**$ -**
Task 4 - Bidding Assistance	**$ 3,083**	**$ -**	**0**	**$ -**
Task 5 - Engineering Services During Well Construction	**$ 114,060**	**$ -**	**0**	**$ -**
Task 6 - Well Construction Report for Production Well Nos. 1, 2 and Backup Well	**$ 26,069**	**$ -**	**0**	**$ -**
Task 7 - Optional Engineering Services During Backup Well Construction	**$ 58,328**		**0**	**$ -**
Total - Well Package	$ 235,464	$ -	0	$ -
WTP Package: WTP, Wellhead Mechanical and Raw Water Main				
Task 1 - Project Initiation	**$ 11,368**	**849**	**125**	**$ 26,093**
1.1 - Kick-Off Meeting	$ 5,017	$ 269	62	$ 12,636
1.2 - Site Visit	$ 4,973	$ 204	34	$ 7,716
1.3 - Data Collection and Review	$ 1,378	$ 376	28	$ 5,740
Task 2 - Conceptual Design Preparation - 10 Percent Completion Stage	**$ 49,867**	**2049**	**278**	**$ 54,480**
2.1 - Conceptual Design Document	$ 30,920	$ 1,340	214	$ 42,480
2.2 - Initial Design and Construction Schedule	$ 6,409	$ 166	16	$ 3,080
2.3 - Opinion of Probable Construction Cost	$ 3,190	$ 215	22	$ 4,340
2.4 - Geotechnical Investigation	$ 754	$ 186	16	$ 3,080
2.5 - Surveying Services	$ 754	$ 142	10	$ 1,500
2.6 - Resiliency Review	$ 7,840	$ 167	20	$ 4,280
Task 3 - Preliminary Design Preparation - 30 Percent Design Stage	**$ 54,971**	**2486**	**432**	**$ 87,320**
3.1 - Preliminary Design Report	$ -	$ 2,486	432	$ 87,320
Task 4 - Design Development Preparation - 60 Percent Design Stage	**$ 65,364**	**3965**	**984**	**$ 197,940**
4.1 - Design Development Documents	$ -	$ 3,965	984	$ 197,940
Task 5 - Pre-Final Design Preparation - 90 Percent Design Stage	**$ 52,230**	**2086**	**634**	**$ 119,030**
5.1 - Pre-Final Design Documents	$ -	$ 2,086	634	$ 119,030
Task 6 - Permitting	**$ 16,435**	**659**	**86**	**$ 17,350**
6.1 - Preliminary Application Meetings	$ 2,646	$ 322	38	$ 7,420
6.2 - Permit Applications Preparation and Submittal	$ 13,789	$ 337	48	$ 9,930
Task 7 - Final Design Preparation - 100 Percent Design Stage	**$ 16,882**	**1102**	**254**	**$ 45,530**
7.1 - Final Design Documents	$ 15,077	$ 765	198	$ 36,720
7.2 - Issued for Bid (IFB) Documents	$ 1,805	$ 337	56	$ 8,810
Task 8 - Bidding Assistance	**$ 5,990**	**1278**	**153**	**$ 26,580**
8.1 - Bid Phase Services	$ 3,121	$ 654	78	$ 13,650
8.2 - Conformed Drawings	$ 2,868	$ 624	75	$ 12,930
Task 9 - Engineering Services During Construction	**$ 89,151**	**9674**	**1724**	**$ 353,441**
9.1 - Pre-Construction Meeting	$ 4,285	$ 294	42	$ 7,570
9.2 - Monthly Site Visits and Monthly Status Meetings	$ 11,776	$ 1,436	237	$ 49,045
9.3 - Shop Drawing Submittal Reviews	$ 38,242	$ 2,969	486	$ 96,720
9.4 - Requests for Information (RFIs) Clarifications	$ 4,459	$ 1,463	427	$ 88,005
9.5 - Asset Management Information Submittals	$ 3,016	$ 208	28	$ 5,210
9.6 - Witness Start-Up and Performance Testing	$ 4,479	$ 978	232	$ 55,080
9.7 - Substantial and Final Completion/Acceptance, and FDEP Certification	$ 4,677	$ 654	109	$ 24,287
9.8 - Reviews and Approval of Vendor Operations and Maintenance (O&M) Manuals	$ 6,414	$ 780	43	$ 7,624
9.9 - Record Drawings Preparation and Submittal	$ 11,804	$ 892	120	$ 19,900
Task 10 - Project and Quality Management	**$ -**	**7211**	**560**	**$ 131,680**
10.1 - Project Planning	$ -	$ 2,022	216	$ 50,060
10.2 - Project Health and Safety Plan	$ -	$ 509	28	$ 6,960
10.3 - Quality Management	$ -	$ 4,680	316	$ 74,660
Task 11 - Additional Services (NTE)	**$ -**	**$ -**	**80**	**$ 14,220**
11.1 - Wetland Surveying and Permitting	0	$ -	68	$ 12,120
11.2 - Resident Project Representative Services	0	$ -	12	$ 2,100
Total - WTP Package	$ 362,255.99	$ 31,359.00	5309	$ 1,059,443
TOTAL COST	$ 597,720	$ 31,359.00	5309	$ 1,059,443

TOTAL LABOR WELL PACKAGE TASKS 1-6 (LUMP SUM)	$	-
TOTAL LABOR WTP PACKAGE TASKS 1-10 (LUMP SUM)	$	1,059,443
TOTAL OTHER DIRECT COSTS (LUMP SUM)	$	31,359
TOTAL LUMP SUM	**$**	**1,090,802**
SUBCONSULTANT WELL ENGINEERING (LUMP SUM)	$	539,391
SUB GEOTECH (NTE) (CSI GEO)	$	33,097
SUB SURVEY & S.U.E (NTE) (RE HOLLAND)	$	91,665
Civil Sub (NTE) (FOUR WATERS)	$	71,270
SUB RPR (NTE) (KEVILLE ENT)	$	101,832
LABOR TO SUPPORT WELL PACKAGE TASK 7 (NTE)	$	58,328
LABOR TO SUPPORT WTP PACKAGE TASK 11 (NTE)	$	14,220
TOTAL SUM (NTE)	$	909,803
TOTAL NTE SUM	**$**	**2,000,605**
Without RPR	$	1,898,773

FEE ANALYSIS TABLE - RIVERTOWN WTP PROJECT

	Costs ($)	% of Const. Cost
Estimated Conceptual Construction Cost of Project	$ 13,500,000	-
Engineering Design Services	$ 1,213,831	9.0%
Engineering Services During Construction	$ 493,610	3.7%
Well Construction Inspection Services	$ 191,332	1.4%
RPR Services	$ 101,832	0.8%
JACOBS HOURS	2838	-
CDM SMITH HOURS	5309	-
TOTAL PROJECT HOURS	8147	-
Total Engineering Fee (with RPR)	**$ 2,000,605**	
Total Engineering Fee (without RPR)	**$ 1,898,773**	

AMENDMENT NO. 6

TO

CONTRACT NO. 181723

SUPPLEMENTAL SERVICES

FOR THE RIVERTOWN WATER TREATMENT PLANT PROJECT

November 8, 2022

This Amendment, when executed, shall be incorporated in and become part of the Contract (Contract No. 181723) for Professional Services between JEA (OWNER), and CDM Smith Inc. (CONSULTANT), dated April 30, 2019, hereafter referred to as the Contract.

PROJECT BACKGROUND

The OWNER is implementing the new Rivertown Water Treatment Plant (WTP) to serve the OWNER's rapidly growing South Grid and provide additional water treatment and distribution capacity to the Rivertown area in north St. Johns County (Project). The Rivertown WTP is located at 7612 Longleaf Pine Parkway in St. Johns County, Florida and will be served by three Upper Floridan aquifer wells (two production wells and one backup well) to provide treatment of approximately 4.7 million gallons per day (mgd) maximum daily flow and peak hourly flow of 6.6 mgd ("Project"). The Project includes three separate sites: the WTP (Well No. 1 is located on the WTP site), Well No. 2 site, and Backup Well No. 3 site.

The Construction phase of the project was kicked-off in September 2021 and the CONSULTANT is currently assisting the OWNER with construction services. The OWNER is administering the overall construction contract and CONSULTANT is providing support, including shop drawing review, responding to clarifications and performing periodic site visits to assess the work's compliance with the contract documents. As part of the construction services efforts on the project, CONSULTANT has been asked to assist OWNER with the development of an interim startup plan for the Project. The Rivertown WTP was originally scheduled to achieve substantial completion by January 24, 2023, so that the WTP could be started up and placed into service to meet the high-water demand season starting in April of 2023. Unfortunately, due to schedule delays from equipment procurement and fabrication, raw material availability and construction work progress, the Rivertown WTP it is not anticipated to achieve substantial completion until the summer of 2023, which is after the typical high water demand season starts. To alleviate concerns of higher water demands in this portion of the OWNER's service area, due to continued growth and development, an interim plan to provide increased pressure and flow by March 2023 in the Rivertown area is needed.

OWNER initiated communication with the Florida Department of Environmental Protection (FDEP) and St. Johns County in October 2022 regarding the necessary permitting steps to bring the interim plan into service. CONSULTANT and OWNER have discussed the proposed implementation of two concurrent plans identified to alleviate low water pressure issues at Rivertown WTP and help bring temporary service while construction of the Project is being completed. These plans will be as follows:

1) Partial Startup of Rivertown WTP.

2) Temporary Booster Pump Station at 1310 Roberts Road.

A detailed summary of proposed concurrent plan at these two sites and associated preliminary sketches originally developed by the OWNER are included in **Attachment A**. This Amendment No. 6 is for the additional efforts from CONSULTANT to provide support to review and advance these plans and provide submittal permit packages for the FDEP Potable Water Components Permit (PWS) and St. Johns County Building Permit. These submittals will address necessary clearances and incorporate the "phased" approach necessary for an interim startup at the Rivertown WTP. The work will include:

- FDEP Minor Modification Permit Package that addresses the partial start-up of the Rivertown WTP and temporary booster pump station at 1310 Roberts Road.
- St. Johns County Building Permit Phasing Plan that addresses the evolution of the site from temporary measures needed to produce water through final permanent infrastructure as originally planned for the site.
- On-going coordination and bi-weekly conference calls with OWNER and Contractor (Williams) to discuss construction progress and alignment and interfacing with partial plant start-up activities and scheduling.
- As-needed technical assistance and support required by the OWNER to develop, coordinate and execute the interim start-up plans and additional regulatory coordination beyond what is noted in Task 1 (see below).

SCOPE OF WORK

The following is a description of the specific services to be provided under Amendment No. 6. The tasks are aligned with areas of service based on the original scope of services task structure in the Contract between OWNER and CONSULTANT.

TASK 1 PERMITTING SUPPORT

This task includes services required for preparing and submitting appropriate permit application forms and supporting documentation, attending meetings and responses to request for additional information. The CONSULTANT services during the construction phase includes the following Work Item/Activity being performed under Subtask 1.1 and 1.2, as described below.

Subtask 1.1 FDEP MINOR MODIFICATION PERMIT TO CONSTRUCT PWS COMPONENTS

CONSULTANT with OWNER's assistance will prepare one minor permit modification request for interim modifications to an existing FDEP PWS permit for the Rivertown WTP to construct PWS components. This permit modification application will allow for interim construction components to provide a skid mounted pump station, chemical system, temporary generator system, and temporary piping installation on an interim basis to alleviate pressure and flow concerns due to anticipated construction

delays associated with the Rivertown WTP being placed into service. Under this task, CONSULTANT will review and incorporate the latest markups provided by OWNER, include the OWNER-furnished equipment performance criteria on the schematics and submit a PWS Minor Modification submittal letter to the FDEP. CONSULTANT will produce a digitally signed/sealed FDEP Minor Modification Letter with supporting drawings attached. CONSULTANT will also prepare two partial clearance forms following the cleaning, disinfection, and Bact-T testing of piping, pumping, and disinfection systems at the two sites for approval prior to OWNER placing into service.

Under this task, CONSULTANT will include a total of three conference call meetings (1 hour each) to review the submittal package with OWNER and participate in a pre-submittal meeting with OWNER and FDEP. This task also includes CONSULTANT's time to provide a formal response to one request for information (RAI), including updates to the minor permit modification application. .

Subtask 1.2 ST. JOHNS COUNTY BUILDING PERMIT – PHASING PLAN

CONSULTANT will prepare a phasing plan from the initial schematics from OWNER for the existing St. Johns County building permit for the Rivertown WTP site provided by OWNER. CONSULTANT will prepare color-coded schematics (in PDF) of the Rivertown WTP construction illustrating the implementation of a phased approach of the existing approved construction plans to highlight the unit processes and facilities in operation and the state of the site during each phase. CONSULTANT will develop a total of four phasing PDF schematics and supporting document (executive summary) that describe the phased approach that will be implemented with respect to temporary and permanent infrastructure. The intent of this phasing plan is to graphically illustrate when these individual components are anticipated to be placed into service.

Under this task, CONSULTANT will update the interim markup from Task 1.1 to demonstrate the sequencing plan. CONSULTANT will participate in a total of three conference call meetings (1 hour each) to review the submittal package with OWNER and a pre-submittal meeting with OWNER and the St. Johns County Building Department. This task also includes addressing comments and changes following St. Johns County review through one formal RAI. CONSULTANT will produce a digital submittal of the St. Johns County Minor Modification Letter with supporting phasing schematics.

TASK 2 PROJECT AND QUALITY MANAGEMENT

Activities performed under this task consist of those general functions required to maintain the project on schedule, within budget, and that the quality of the work products defined within the scope of work is consistent with CONSULTANT's standards and OWNER's requirements. Under this Task, CONSULTANT will provide technical review of OWNER's proposed equipment and interim startup schematics and permit submittal packages to FDEP and St. Johns County Building Department and attendance of four (1-hour) re-occurring bi-weekly meetings that OWNER has scheduled leading up to the start-up.

TASK 3 OPTIONAL SUPPORT SERVICES

At the request of the OWNER, CONSULTANT will perform additional optional support services for work not included in the scope of work outlined above. These optional support services will be performed

only when authorized by OWNER's Project Manager. Additional support services under this task may include the following:

- Additional RAIs addressing FDEP and St. Johns County Permitting Agencies beyond efforts noted in Task 1.
- OWNER-requested specialty meetings beyond what is noted in Task 1 and Task 2.
- Pre-application (and additional sketches) for the temporary booster pump station at 1310 Robert Road for St. Johns County Building Department.
- Additional analysis of the temporary skid mounted booster pump system for two proposed locations.
- Support in developing a schematic Process Flow Diagram with a general arrangement of the skid piping connections to the finished water distribution piping with pipe sizes identified.
- Support to OWNER for the proposed temporary electrical power panel, including flow monitoring and pressure switches to energize pump start and stop set points.
- Support to OWNER to produce a single line electrical diagram and a temporary electrical panel detail to provide connections for the temporary power supply to the skid mounted pumps.
- Support to OWNER to develop Process and Instrumentation Drawings for temporary booster pumps and temporary chlorine feed system to monitor and control chlorine feed rates.
- Additional re-development and review of site plan and yard piping layouts by OWNER associated with both sites.
- Review of design calculations developed by OWNER associated with both sites.
- Review of electrical and instrumentation design developed by OWNER associated with both sites.
- Review of additional design components as requested by OWNER.
- Other project-specific activities at the OWNER's request for supporting the interim start-up at Rivertown WTP.

BASIS OF ESTIMATE

The basis of estimate for this Amendment No. 6 is consistent with the original basis in the Contract scope of work, delineating OWNER and CONSULTANT responsibilities for the project and the data and coordination assistance to be provided by the OWNER. The additional basis of estimate in the preparation of this Amendment No. includes:

- This Amendment No. 6 assumes that OWNER provides selection, sizing, and commissioning of the supporting equipment described in Attachment A. CONSULTANT shall provide a high-level review of equipment selections and support the completion of the revised interim schematics for

submittal to regulatory agencies. Any additional design efforts requested by OWNER shall be authorized under Task 3.

- This Amendment No. 6 assumes that CONSULTANT will not be required to perform any site visits associated with the interim plan, unless specifically authorized by OWNER under Task 3.
- OWNER shall install, setup, control, and operate both interim pump stations at Rivertown WTP and 1310 Roberts Road.
- Meetings are based on virtual meetings (not in-person).
- Development of CAD drawings is not included in this Amendment No. 6. Work related to updating existing schematics and contract drawings will be completed in PDF.
- Any permitting fees for the interim plan for the Rivertown WTP shall be covered by OWNER.
- This Amendment No. 6 assumes that all sampling and testing will be conducted by OWNER's forces. CONSULTANT shall coordinate to receive test results to review them and include them in clearance request to FDEP.
- Field commissioning and inspections services are not included in Task 1 and Task 2. Any additional support in the field shall be authorized by OWNER under Task 3.
- CONSULTANT assumes that regulatory agencies will review and respond to the interim plans within 1 week of submittal.

TIME OF COMPLETION/SCHEDULE

It is anticipated that the work of this Amendment No. 6 will be completed within 45 days of the formal notice to proceed (NTP), which is anticipated to be received by November 8, 2022.

Task and Description	Estimated Duration from Start
Task 1 – Permitting Support	30 Days (Submission of Permits)
Task 2 – Project and Quality Management	45 Days
Task 3 – Optional Support Services	45 Days

PAYMENT AND COMPENSATION

Compensation for the services described herein shall be made in accordance with the Agreement between OWNER and CONSULTANT. The work described in Tasks 1 and 2 of this Amendment No. 6 will be completed as lump sum in the amount of $19,025. A time and materials not-to-exceed allowance of $10,000 is established for Task 3 Optional Support Services for use by the OWNER. The total not-to-exceed amount of this Task Order is $29,025. The new Total Not-to-Exceed amount of this Contract is **$2,210,700**. CONSULTANT will submit invoices on a monthly basis accompanied by written monthly status reports. Partial payments will be made in accordance with the percentage of the work completed for the lump sum portions during the period of the invoice and time incurred and labor billing rates plus

direct costs and subconsultants for the not-to-exceed portion in Task 3. For summary purposes only, the approximate value of each task is as shown in **Table 1**.

Table 1 Task Value Summary for Invoices Purposes Only

Task	Task Description	Value
Task 1	Permitting Support	$15,370
Task 2	Project and Quality Management	$3,655
	Lump Sum Subtotal Amount	**$19,025**
Task 3	Optional Support Services (Not-To-Exceed Allowance)	$10,000
	Total Not-To-Exceed (NTE) Amount	**$29,025**

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 7

Formal Bid and Award System

Award #7 January 5, 2023

Type of Award Request: CONTRACT RENEWAL
Requestor Name: Souder, Scott – Vegetation Management Specialist Sr
Requestor Phone: (904)-738-6794
Project Title: Vegetation Management
Project Number: Various
Project Location: JEA
Funds: O&M & Capital (see back-up)
Business Unit Estimate: $6,425,000.00

Scope of Work:

The purpose of this solicitation is to establish pricing for vegetation management services for JEA and Tampa Electric Company (TECO). The work to be performed by the Company includes all labor, supervision, materials, tools and equipment, and reporting requirements as necessary for performing the work.

JEA maintains vegetation surrounding approximately 3,200 miles of distribution lines with a pruning cycle of 2.5 years, and over 700 miles of transmission lines with an inspection cycle of twice a year with tree removal and pruning as necessary. In addition, JEA manages approximately 5,000 acres of timber land. Vegetation management includes mowing over 300 corridor miles of transmission, and some select distribution rights-of-way. Herbicide is also utilized to manage vegetation such as vines and invasive species.

JEA IFB/RFP/State/City/GSA#: 114-17
Purchasing Agent: Lovgren, Rodney Dennis
Is this a ratification?: NO

RECOMMENDED AWARDEE:

Name	Contact Name	Email	Address	Award Amount
TREES, INC.	Stephanie Stafford	Sstafford@ Treesinc.	650 N. Sam Houston Pkwy E. Ste 209, Houston, TX 77060	$6,425,000.00

Amount of Original Award: $31,222,514.94
Date of Original Award: 01/11/2018
Change Order Amount: $6,425,000.00
New Not-To-Exceed Amount: $37,647,514.94
Length of Contract/PO Term: Five (5) Years w/ One (1) - 1 Yr. Renewals
Begin Date (mm/dd/yyyy): 01/26/2018
End Date (mm/dd/yyyy): 01/25/2024

Renewal Options:	None Remaining
JSEB Requirement:	NA – Optional

Background/Recommendations:

Competitively bid and approved by Awards Committee on 01/11/2018 to Trees, Inc in the amount of $31,222,514.94. The original award is attached as back-up.

This request is to execute a one (1) year renewal and add $6,425,000.00 in funds for O&M and Capital projects. The original award amount was based on historical usage and budget estimates available at the time of award. Contract price adjustments have been requested by the supplier and will be implemented as a part of the renewal execution. JEA intends start a new bid process in August 2023.

Request approval for a one (1) year contract renewal to Trees, Inc. for vegetation management services in the amount of $6,425,000.00, for a new not-to-exceed amount of $37,647,514.94, subject to the availability of lawfully appropriated funds.

Manager:	Pitre, John - Mgr T&D Preventative Maintenance
Director	Wheeler, Kimberlie - Dir Preventative Maintenance & Contract Management
VP:	Erixton, Ricky - VP Electric Systems

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

Approved by the JEA Awards Committee
Date 01/11/18 Item # 2

Formal Bid and Award System

CPA171465 Award #2 January 11, 2018

Type of Award Request: BID (IFB)
Request #: 3942
Requestor Name: Wheeler, Kim M. - Manager, T&D Preventative Maint
Requestor Phone: (904) 665-6355
Project Title: Vegetation Management
Project Number: HE30706
Project Location: JEA
Funds: O&M
Award Estimate:

Scope of Work:

The purpose of this solicitation is to establish pricing for vegetation management services for JEA and Tampa Electric Company (TECO). The work to be performed by the Company includes all labor, supervision, materials, tools and equipment, and reporting requirements as necessary for performing the work.

JEA maintains vegetation surrounding approximately 3,200 miles of distribution lines with a pruning cycle of 2.5 years, and over 700 miles of transmission lines with an inspection cycle of twice a year with tree removal and pruning as necessary. In addition, JEA manages approximately 5,000 acres of timber land. Vegetation management includes mowing over 300 corridor miles of transmission and some select distribution rights-of-way. Herbicide is also utilized to manage vegetation such as vines and invasive species.

JEA IFB/RFP/State/City/GSA#: 114-17
Purchasing Agent: Lovgren, Rodney
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
TREES, INC.	Stephanie Stafford	Sstafford@Treesinc.Com	650 N. Sam Houston Pkwy E Ste 209 Houston TX 77060	(904) 665-6050	$31,222,514.94

Amount for entire term of Contract/PO: $31,222,514.94
Award Amount for remainder of this FY: $4,500,000.00
Length of Contract/PO Term: Five (5) Years w/One (1) – 1 Yr. Renewal
Begin Date (mm/dd/yyyy): 01/26/2018
End Date (mm/dd/yyyy): 01/25/2023
Renewal Options: YES – One (1) – 1 Yr. Renewal
JSEB Requirement: N/A - Optional Goal

Comments on JSEB Requirements:

Contractor will commit to subcontracting with K&G Mowing for mowing services during the performance of the contract.

BIDDERS:

Name	JEA Amount	JEA BAFO Amount	TECO Amount
TREES, INC.	$32,452,689.40	$31,222,514.94	$76,153,978.98
DAVEY TREE	No Bid	N/A	$71,451,769.04
WRIGHT TREE	No Bid	N/A	$95,255,136.02
NELSON	No Bid	N/A	Only partial Bid

Background/Recommendations:

Advertised 11/3/2017. Ten (10) companies attend one (1) of the mandatory pre-response meetings on 11/09/2017 and 11/21/2017. At Response opening on 12/12/2017, JEA received four (4) Responses. All four (4) companies bid TECO's scope of work, only one (1) company, Tree's Inc. bid JEA's scope of work. Tree's Inc. is JEA's current provider for these services.

The three (3) companies that did not include pricing for the JEA work, provided the following reasons:

1. Only interested in working with JEA on a T&M basis, not fixed price per mile
2. Could not be competitive on pricing per mile
3. Wanted the larger scope of work with TECO only

JEA negotiated with Tree's Inc. for a reduction in price resulting in a savings of five percent (5%) on price per mile and 2.6% on labor rates for a total of $1,230,174.49 over the five (5) year forecast, or a 3.7% Best and Final Offer (BAFO) savings from the original submission. This savings includes an incentive of one percent (1%) reduction due to collaboration between JEA and TECO for aggregation of spend. The price per mile is fixed for two (2) years with CPI adjustments in years three (3) through five (5). The labor rates are fixed for one (1) year, with CPI adjustments in years two (2) through five (5). Finally, the equipment rates are fixed for one (1) year with fuel index adjustments in years two (2) through five (5), on fifteen percent (15%) of the unit price for each piece of equipment that uses fuel.

When comparing JEA's current rates with the BAFO rates submitted, there is an increase of 6.5% on the price per mile, and ten percent (10%) increase on labor rates. JEA performed an analysis for T&M rates between all Respondents, and found on average the Tree's Inc. labor and equipment rates for JEA were less than all other bidders when comparing to bids submitted for TECO. The price comparison spreadsheet is attached as back-up. Please note, JEA was not able to directly compare the price per mile for vegetation maintenance with the other bidders, as TECO requested companies to provide T&M rates only.

114-17 – Request approval to award a five (5) year contract to Trees, Inc. for vegetation management services for JEA in the amount of $31,222,514.94, subject to the availability of lawfully appropriated funds.

Director: Erixton, Ricky D. - Director, T&D Maintenance
VP: Brost, Mike J. - VP/GM Electric Systems

APPROVALS:

1-11-18

Chairman, Awards Committee **Date**

1/11/18

Manager, Capital Budget Planning **Date**

BAFO - APPENDIX B
RESPONSE FORM

114-17 VEGETATION MANAGEMENT SERVICE FOR JEA

COMPANY INFORMATION:

COMPANY NAME: Trees, LLC

BUSINESS ADDRESS: 650 North Sam Houston Parkway, East Suite 205

CITY, STATE, ZIP CODE: Houston, TX 77060

TELEPHONE: 443-838-7174

FAX: N/A

EMAIL OF CONTACT: aprincipi@trees-llc.com

X☐ **I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is".**

Company's Certification

By submitting this Proposal, the Proposer certifies that it has read and reviewed all of the documents pertaining to this RFP and agrees to abide by the terms and conditions set forth therein, that the person signing below is an authorized representative of the company, that the company is legally authorized to do business in the State of Florida, and that the company maintains in active status an appropriate license for the work. The company certifies that its recent, current, and projected workload will not interfere with the company's ability to Work in a professional, diligent and timely manner.

The Proposer certifies, under penalty of perjury, that it holds all licenses, permits, certifications, insurances, bonds, and other credentials required by law, contract or practice to perform the Work. The Proposer also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Company shall immediately notify JEA of status change.

DESCRIPTION	TOTAL BID PRICE
Total Bid Price from the JEA Bid Workbook – 114-17 Vegetation Management Services (Enter the total from the Bid Workbook)	**$ 31,222,514.94**

We have received addenda 1 through 5

Signature of Authorize Officer of Company or Agent

12/28/2017
Date

Anthony J. Principi, Vice President
Printed Name & Title

443-838-7174
Phone Number

114-17 JEA - Vegetation Management Services Appendix B Bid Workbook

Companies will populate yellow cells only with unit prices or mark up percentages. All other cells are JEA or TECO provide forecasts, references and calculations

JEA - Fixed Price / Mile

The mileages listed below are indicate the number of miles in the system, maintained on a 2.5 year cycle

JEA PRICE PER MILE - (Not to Exceed)

Item	Specification Reference	Price Per Line Mile	UOM	Unit Price	Price Adjustment	Five year forecast # MILES / AREA	Extended Price
1	See Appendix A and T&D Maps	JEA - North	Price / mile	$3,047.77	Fixed for Term of Contract	2216	$ 6,753,856.19
2	See Appendix A and T&D Maps	JEA - South	Price / mile	$2,691.42	Fixed for Term of Contract	2110	$ 5,678,897.14
3	See Appendix A and T&D Maps	JEA - West	Price / mile	$2,696.18	Fixed for Term of Contract	1716	$ 4,626,504.72
					JEA Price per Mile Subtotal		$ 17,059,258.05

JEA Time, Equipment & Materials Pricing

Item	Specification Reference	Description	UOM	Labor Rate	Mark up	Billable Rate	Price Adjustment	Five year Forecast	Exteaded Price
12	See Appendix A - JEA	General Foreman (per person)	HR	$ 21.04		$ 31.77	Firm 1st yr, CPI on labor rate thereafter	31200	$ 991,236.48
13	See Appendix A - JEA	Crew Leader Climber (per person)	HR	$ 17.71		$ 26.74	Firm 1st yr, CPI on labor rate thereafter	10400	$ 278,117.84
14	See Appendix A - JEA	Crew Leader Trimmer (per person)	HR	$ 16.60	51%	$ 25.07	Firm 1st yr, CPI on labor rate thereafter	187200	$ 4,692,355.20
16	See Appendix A - JEA	Climber (per person)	HR	$ 14.32		$ 21.62	Firm 1st yr, CPI on labor rate thereafter	31200	$ 674,643.84
17	See Appendix A - JEA	Trimmer (per person)	HR	$ 13.11		$ 19.80	Firm 1st yr, CPI on labor rate thereafter	197600	$ 3,911,709.36
18	See Appendix A - JEA	Field Operation Helper (per person)	HR	$ 11.71		$ 17.68	Firm 1st yr, CPI on labor rate thereafter	104000	$ 1,838,933.40
					Labor Subtotal				$ 12,387,001.12

JEA Equipment Rates

Equipment Rates are subject to fuel price adjustment only, based on the percentage of the equipment, the company bids

Item	JEA Specification Reference	Equipment - Description	UOM	Unit Price	Price Adjustment	Forecast	Extended Price
38	16.1	60/70' Aerial Unit Dump Body Unit	HR	$ 16.98	Firm First Year, % of Equipment associated with Fuel adjust annually	20800	$ 353,184.00
39	16.2	60/70 AERIAL UNIT 4X4 Body Unit With Winch	HR	$ 22.94	Firm First Year, % of Equipment associated with Fuel adjust annually	4160	$ 95,436.64
40	16.3	60/70 AERIAL UNIT 4X4 FLATBED WITH WINCH	HR	$ 23.17	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 23.17
41	16.4	55' AERIAL Dump Body Unit	HR	$ 13.57	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 13.57
42	16.5	SPLIT DUMP TRUCK – CREW-CAB, 4-DOOR	HR	$ 10.20	Firm First Year, % of Equipment associated with Fuel adjust annually	6240	$ 63,648.00
43	16.6	SPLIT DUMP TRUCK –NON-CREW-CAB, 2-DOOR	HR	$ 9.32	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 9.32
44	16.7	DISC BRUSH CHIPPER	HR	$ 4.60	Firm First Year, % of Equipment associated with Fuel adjust annually	22880	$ 105,248.00
45	16.8	LARGE DISC BRUSH CHIPPER	HR	$ 8.27	Firm First Year, % of Equipment associated with Fuel adjust annually	8320	$ 68,806.40
46	16.9	GRAPPLE LOADER / Hydraulic Dump Truck	HR	$ 30.74	Firm First Year, % of Equipment associated with Fuel adjust annually	2080	$ 63,939.20
47	16.10, 11 & 12	Gasoline Powered Hand Tool (Saws, Blowers, Pole Prunner, Weed Eater)	HR	$ 0.35	Firm First Year, % of Equipment associated with Fuel adjust annually	122720	$ 42,952.00
48	16.13	PICK-UP 3/4 TON, WITH STUMP GRINDER	HR	$ 12.45	Firm First Year, % of Equipment associated with Fuel adjust annually	2080	$ 25,896.00
49	16.14	PICK-UP 1/2 TON, 4x4 (GF Truck)	HR	$ 11.42	Firm First Year, % of Equipment associated with Fuel adjust annually	6240	$ 71,260.80
50	16.15	PICK-UP 3/4 TON, 4x4, CREW CAB	HR	$ 9.95	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 9.95
51	16.16	PICK-UP 1/2 TON, 4x4	HR	$ 9.95	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 9.95
52	16.17	TRACTOR 4X4, with transporter	HR	$ 28.74	Firm First Year, % of Equipment associated with Fuel adjust annually	2080	$ 59,779.20
53	16.18	(BROWN) TREE CUTTER	HR	$ 3.40	Firm First Year, % of Equipment associated with Fuel adjust annually	2080	$ 7,072.00
54	16.19	BATWING MOWER	HR	$ 3.28	Firm First Year, % of Equipment associated with Fuel adjust annually	2080	$ 6,822.40
55	16.20	75' JARRAFF - TRACKED	HR	$ 45.82	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 45.82
56	16.21	75' JARRAFF - Rubber Tred	HR	$ 46.82	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 46.82
58	16.22	ATV(s)	HR	$ 4.03	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 4.03
57	16.23	SQUIRT BOOM BUCKET	HR	$ 13.60	Firm First Year, % of Equipment associated with Fuel adjust annually	2080	$ 32,448.00
60	16.24	Back Yard Bucket 35"	HR	$ 26.45	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 26.45
61	16.25	127HP Caterpillar Skidster - Fecon	HR	$ 57.80	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 57.80
59	16.13	Stump Grinder	HR	$ 4.63	Firm First Year, % of Equipment associated with Fuel adjust annually	1	$ 4.63
					Subtotal Equipment without Fuel		$ 996,744.14
		Fuel Price Adjustment - Fuel Impact (the percentages listed in this Section shall be applied to the price adjustment methodology for equipment) (Not to Exceed 15%)				15.0%	$ 149,511.62
					Subtotals (Equipment)		$ 1,146,255.76

SUBCONTRACTING AND MATERIALS MARK UPS

#	Description	Estimated Amount	Move to adjust	5% NTE	Extended Price
105	Subcontractor Mark up - For services that Primary contractor does not provide. Company will need to provide copies of subsupplier invoices with Company invoice marked up.	$500,000.00		5.0%	$ 525,000.00
106	Materials Mark up (Miscellaneous Expenses - subject to JEA approval). Company will need to provide copies of subsupplier invoices with Company invoice marked up.	$ 100,000.00		5.0%	$ 105,000.00

JEA Total Bid Price (Enter this amount on the Response Form Page 1)
**** Bid pricing reflects 1% discount due to Joint JEA / TECO participation** $ 31,222,514.94

Price / Mile

Price / Mile				Base Bid (5 year forecast)	Tree's unsolicited BAFO THURSDAY OFFER	JEA Counter to Trees FRIDAY OFFER	Final Negotiated Pricing WEDNESDAY AWARD BASIS	CURRENT PRICING compared to AWARD
Item	Specification Reference	Price Per Line Mile	UOM	Unit Price	Unit Price	Unit Price	Unit Price	Unit Price
1	See Appendix A and T&D Maps	JEA - North	Price / mile	$ 3,242.31	$ 3,112.62	$ 3,047.77	$ 3,047.77	$ 2,650.85
2	See Appendix A and T&D Maps	JEA - South	Price / mile	$ 2,774.66	$ 2,746.91	$ 2,691.42	$ 2,691.42	$ 2,650.85
3	See Appendix A and T&D Maps	JEA - West	Price / mile	$ 2,868.19	$ 2,753.46	$ 2,696.10	$ 2,696.10	$ 2,650.85
JEA Price per Mile Subtotal		Extended Total		$ 17,961,300.06	$ 17,418,483.38	$ 17,059,258.05	$ 17,059,258.05	$ 16,016,435.70
NEGOTIATED $ REDUCTION FROM BASE BID				BASE	$ (542,816.68)	$ (902,042.01)	$ (902,042.01)	
% REDUCTION FROM BASE BID				BASE	-3.02%	-5.02%	-5.02%	
AGGREGATE $/MILE % INCREASE COMPARED TO CURRENT CONTRACT							6.51%	CURRENT PRICING
AGGREGATE $/MILE DOLLAR INCREASE COMPARED TO CURRENT CONTRACT							$ 1,042,822.35	CURRENT PRICING

Labor Rates

Item	Specification Reference	Description	UOM	Base Bid (5 year forecast)	Tree's unsolicited BAFO THURSDAY OFFER	JEA Counter to Trees FRIDAY OFFER	Final Negotiated Pricing WEDNESDAY AWARD BASIS	CURRENT PRICING compared to AWARD
12	See Appendix A - JEA	General Foreman (per person)	HR					42.02%
13	See Appendix A - JEA	Crew Leader Climber (per person)	HR					33.99%
14	See Appendix A - JEA	Crew Leader Trimmer (per person)	HR	55%	53%			33.98%
16	See Appendix A - JEA	Climber (per person)	HR			49%	51%	38.97%
17	See Appendix A - JEA	Trimmer (per person)	HR					38.98%
18	See Appendix A - JEA	Field Operation Helper (per person)	HR					39.03%
Labor Subtotal				$ 12,715,133.60	$ 12,551,067.36	$ 12,222,934.88	$ 12,387,001.12	$ 11,256,648.00
NEGOTIATED $ REDUCTION FROM BASE BID				BASE	$ (164,066.24)	$ (492,198.72)	$ (328,132.48)	
% REDUCTION FROM BASE BID				BASE	-1.290%	-3.871%	-2.581%	
AGGREGATE LABOR % INCREASE COMPARED TO CURRENT CONTRACT							10.04%	CURRENT PRICING
AGGREGATE LABOR DOLLAR INCREASE COMPARED TO CURRENT CONTRACT							$ 1,130,353.12	CURRENT PRICING

Equipment and Markups

EQUIPMENT AND MARKUPS								
Subtotal Equipment without Fuel				$ 996,744.14	$ 996,744.14	$ 996,744.14	$ 996,744.14	$ 1,084,905.79
Fuel Price Adjustment - Fuel Impact (the percentages listed in this Section shall be applied to the price adjustment methodology for equipment) (Not to Exceed 15%)				15.0%	15.0%	15.0%	15.0%	15.0%
Subtotals (Equipment) w/ fuel				$ 1,146,255.76	$ 1,146,255.76	$ 1,146,255.76	$ 1,146,255.76	$ 1,247,641.65
AGGREGATE DOLLAR INCREASE COMPARED TO CURRENT CONTRACT								$ 88,161.64
AGGREGATE % INCREASE COMPARED TO CURRENT CONTRACT								8.8%
SUBCONTRACTING AND MATERIALS MARK UPS								
#	Description	5% NTE		Extended Price	Extended Price	Extended Price	Extended Price	Extended Price
105	Subcontractor Mark up	5.0%		$ 525,000.00	$ 525,000.00	$ 525,000.00	$ 525,000.00	$ 525,000.00
106	Materials Mark up	5.0%		$ 105,000.00	$ 105,000.00	$ 105,000.00	$ 105,000.00	$ 105,000.00

TOTALS

JEA Total Bid Price				$ 32,452,689.43	$ 31,745,806.50	$ 31,058,448.70	$ 31,222,514.94	$ 29,150,725.35
				ORIGINAL BID 5 YRS	TREES THURS OFFER	JEA FRIDAY OFFER	TREES WED. OFFER	COMPARE TO PREVIOUS
Percent reduction from Base submission (Percent increase compared to current)				BASE	-2.178%	-4.296%	-3.791%	7.107%
Dollar reduction from Base Submission ($ increase compared to current)				BASE	$ (706,882.92)	$ (1,394,240.73)	$ (1,230,174.49)	$ 2,071,789.58
1%				BASE	INCLUDED	INCLUDED	INCLUDED	INCLUDED
1% discount				BASE	INCLUDED	INCLUDED	INCLUDED	INCLUDED

Tree's Inc, Budget Estimate

Original Award Amount	Exp Type	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	$ 31,222,514.94
HE30711	2008	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 500,000.00	$ 6,000,000.00
8008164	2008	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 50,000.00
8008163	2008	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 8,333.33	$ 100,000.00
8008195	2008	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 50,000.00
8008188	2008	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 50,000.00
8008184	2008	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 4,166.67	$ 50,000.00
8008154	2008	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 6,250.00	$ 75,000.00
HW30120	2008	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 3,333.33	$ 40,000.00
HW30604	2008	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 833.33	$ 10,000.00
New Not to Exceed														**$ 37,647,514.94**

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 8

Formal Bid and Award System

Award #8 January 5, 2023

Type of Award Request: INVITATION FOR BID (IFB)
Request #: 574
Requestor Name: Hersey, Michael T. – Water Wastewater Engineer
Requestor Phone: (904) 651-8875
Project Title: Well Services – Repair and Maintenance
Project Number: 8006603
Project Location: JEA
Funds: Capital
Business Unit Estimate: $600,000.00

Scope of Work:

The scope of work includes providing labor, materials and services necessary to support operational reliability and disaster recovery of JEA water wells and water treatment plants. The task(s) may include, but not limited to: Emergency mobilization, well pump repairs, removal and installation of well pumps, draw down testing, video logging wells, geophysical logging wells, on-site pump evaluation, and well chlorination and flushing.

All personnel shall meet the qualifications required by this Contract for the job classification assigned.

All hourly rates for personnel on the Bid Workbook will be guaranteed for the term of the contract. Any material pricing included in the Bid Workbook shall be fixed for the first year of the contract.

JEA IFB/RFP/State/City/GSA#: 1410901246
Purchasing Agent: Rix, Lynn
Is this a Ratification?: No

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
COMPLETE SERVICES WELL DRILLING, INC	Justin Merritt	office@jaxwelldrilling.com	9785 Well Water Rd., Jacksonville, FL 32220	904-693-8635	$500,000.00
AC SCHULTES OF FLORIDA DBA ROWE DRILLING	Juan C. Cepeda	juanc@acschultes.com	7584 W. Tennessee St., Tallahassee, FL 32304	850-576-1271	$100,000.00

Award Amount for remainder of this FY: $120,000.00
Length of Contract: Three (3) Years w/Two (2) - 1 Yr. Renewals
Begin Date: 02/02/2023

End Date: 02/01/2026
Renewal Options: Two (2) - One (1) Yr. Renewals
JSEB Requirement: N/A – Optional
Comments on JSEB Requirement:
Complete Services Well Drilling, Inc. is a JSEB certified firm.

BIDDERS:

Name	Award Amount
COMPLETE SERVICES WELL DRILLING, INC.	$500,000.00
AC SCHULTES OF FLORIDA dba ROWE DRILLING	$100,000.00

Background/Recommendations:
Advertised on 10/27/2022. Three (3) Bidders attended the mandatory pre-bid meeting held on 11/02/2022. A second pre-bid meeting was held on 11/18/2022 for a company that had missed the original meeting; however, they did not attend. At Bid opening on 12/13/2022, JEA received two (2) Bids. JEA determined Complete Services Well Drilling, Inc. and AC Schultes of Florida dba Rowe Drilling are the lowest responsive and responsible Bidders. A copy of the Bid Forms and Workbooks are attached for reference.

The purpose of this solicitation is to award a primary and secondary contractor to provide operational reliability and disaster recovery of JEA water wells and water treatment plants. Having the contract in place will expedite well repairs, bringing critical water supply components back to service in the shortest time possible.

The basis for this award budget estimate is the historical spend for the current JEA Well Services – Repair and Maintenance contract. The intent is to balance the workload between the contractors approximately eighty (80) percent to the lowest bidder and twenty (20) percent to the next lowest bidder. However, work may be assigned on the basis of performance, expertise, hourly rates or lowest lump sum bid price for defined scopes of work, as well as workload constraints by the primary contractor.

This Solicitation replaces the previous contract with the same term (three (3) years with two (2) one (1) year renewals). The last renewal expires February 1, 2023. The Awardees are the incumbents and both companies have performed satisfactorily.

1410901246– Request approval to award contracts to Complete Services Well Drilling, Inc. ($500,000.00) and AC Schultes of Florida dba Rowe Drilling ($100,000.00) for continuing services for the Well Services – Repair and Maintenance in the amount of $600,000.00, subject to the availability of lawfully appropriated funds.

Manager: Dvoroznak, Michael T. - Mgr WWW Reuse Treatment Maint Planning & Eng
Director: Wagoner, Bryan L. - Dir Water Operations & Treatment Support Services
VP: Vu, Hai X. - VP Water Wastewater Systems

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

Addendum 2 Appendix B - Bid Forms
1410901246 Well Services – Repair and Maintenance

Submit all Bid documents electronically as described in Appendix C – Zycus Supplier Instructions.

Company Name: Complete Services Well Drilling INC

Company's Address: 9785 Well Water Road, Jacksonville FL 32220

License Number: 2779

Phone Number: 904-693-8635 FAX No: _____ Email Address: office@jaxwelldrilling.com

BID SECURITY REQUIREMENTS
☒ None required
☐ Certified Check or Bond (Five Percent (5%)

TERM OF CONTRACT
☐ One Time Purchase
☐ Annual Requirements
☒ Other, Specify – Three (3) Year

SAMPLE REQUIREMENTS
☒ None required
☐ Samples required prior to Bid Opening
☐ Samples may be required subsequent to Bid Opening

SECTION 255.05, FLORIDA STATUTES CONTRACT BOND
☒ None required
☐ Bond required 100% of Bid Award

QUANTITIES
☐ Quantities indicated are exacting
☒ Quantities indicated reflect the approximate quantities to be purchased Throughout the Contract period and are subject to fluctuation in accordance with actual requirements.

INSURANCE REQUIREMENTS

Insurance required

PAYMENT DISCOUNTS	
☐ 1% 20, net 30 ☐ 2% 10, net 30 ☒ Other JSEB ☐ None Offered	

ENTER YOUR BID FOR SOLICITATION 1410901246	TOTAL RESPONSE PRICE
Total Response Price (Enter total from cell G54 in the Response Workbook)	$ 419,450.00

☒ **I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is".**

RESPONDENT CERTIFICATION

By submitting this Response, the Respondent certifies that it has read and reviewed all of the documents pertaining to this Solicitation, that the person signing below is an authorized representative of the Responding Company, that the Company is legally authorized to do business in the State of Florida, and that the Company maintains in active status an appropriate contractor's license for the work (if applicable). The Respondent also certifies that it complies with all sections (including but not limited to Conflict of Interest and Ethics) of this Solicitation.

We have received addenda

__1__ through __4__

Handwritten Signature of Authorized Officer of Company or Agent — 12/12/2022 Date

JUSTIN MERRITT III, President
Printed Name and Title

Appendix B – Minimum Qualifications Form
1410901246 Well Services – Repair and Maintenance

THE MINIMUM QUALIFICATIONS SHALL BE SUBMITTED ON THIS FORM. IN ORDER TO BE CONSIDERED A QUALIFIED BIDDER BY JEA YOU MUST MEET THE MINIMUM QUALIFICATIONS LISTED BELOW, AND BE ABLE TO PROVIDE ALL THE SERVICES LISTED IN THIS SOLICITATION.

THE BIDDER MUST COMPLETE THE BIDDER INFORMATION SECTION BELOW AND PROVIDE ANY OTHER INFORMATION OR REFERENCE REQUESTED. THE BIDDER MUST ALSO PROVIDE ANY ATTACHMENTS REQUESTED WITH THIS MINIMUM QUALIFICATIONS FORM.

BIDDER INFORMATION

COMPANY NAME: Complete Services Well Drilling Inc.

BUSINESS ADDRESS: 9785 Well Water Road

CITY, STATE, ZIP CODE: Jacksonville, FL 32233

TELEPHONE: 904-693-8635

FAX:

E-M AIL: justin@jaxwelldrilling.com

PRINT NAME OF AUTHORIZED REPRESENTATIVE: Cecil Cauley

SIGNATURE OF AUTHORIZED REPRESENTATIVE:

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE: Authorized Signer

MINIMUM QUALIFICATIONS:
Bidder shall have the following Minimum Qualifications to be considered eligible to submit a Bid in response to this Solicitation. It is the responsibility of the Bidder to ensure and certify that it meets the Minimum Qualifications stated below. A Bidder not meeting all of the following criteria will have their Bids rejected:

- Company shall have successfully performed two (2) similar contracts in the past two (2) years ending November 30, 2021
  - A similar contract is defined as an emergency or recovery service for a water well (greater than 10" diameter & greater than 400' deep).
  - Each contract shall have been greater than $10,000.00 in value.

- The company shall have a field office, crane, crane operator and technicians (a minimum of four 4) within a 150-mile radius of JEA headquarters, 21 West Church Street, Jacksonville, FL.
  - The crane shall be of sufficient size to install/remove a 14-inch vertical turbine pump including up to 120 feet of 12-inch diameter column pipe.

Please provide the reference information requested below.

Appendix B – Minimum Qualifications Form
1410901246 Well Services – Repair and Maintenance

1. REFERENCE

Reference Name: Michael Hersey- (JEA)

Reference Phone Number: 904-665-7883

Reference Company Name: JEA

Address of Work: 21 Church Street, Jacksonville FL

Reference E-Mail Address: hersmt@jea.com

Dates of Work/Number of Sites: 2018, 2019, 2020, 2021, 2022

Description of Work including contract value: Pump Pull/Installation, Testing, Rehabilitation, Casing Repair,

Multi year contract in excess of $300k

2. REFERENCE

Reference Name: Barry Stuart

Reference Phone Number: 904-209-2645

Reference Company Name: St. Johns County Utilities

Address of Work: 1205 SR 16 , St. Augustine FL 32084

Reference E-Mail Address: bstewart@SJCFL.us

Dates of Work/Number of Sites: 2021, 2022

Description of Work including contract value: Pump pull, evaluation, testing, pump installation, Well Rehabilitation, and supplying VTP's . Contract performed at least $100k

1410901246 Addendum 4 Appendix B - Bid Workbook
Well Services - Repair and Maintenance
(Only complete the Prices in Yellow Cells)

Company: COMPLETE SERVICES WELL DRILLING INC

Hourly Labor Rates

Labor

Labor Classification	Estimated Straight Time Hours	Straight Time Rate	Overtime Rate up to 1.5X Straight Time Rate (for Reference only)	Estimated Straight Time Labor Cost
Crane Operator	50	$ 200.00		$ 10,000.00
Superintendent	100	$ 150.00		$ 15,000.00
Engineering Support Services	100	$ 100.00		$ 10,000.00
Shop Rate - Tool fabrication, Pump Inspection or Rebuild	100	$ 75.00		$ 7,500.00
Field Service Technician	200	$ 75.00		$ 15,000.00
			Subtotal - Labor (Straight Time)	**$ 57,500.00**

Notes

1. The contractor is to list their rates as requested on the Bid Workbook. If a line item on the Bid Workbook does not apply leave it blank and explain why it does not apply.
2. All estimates given on the Bid Workbook are just for the purpose of evaluation and are not a guarantee of work volume of any kind.
3. Double Time (2X) Labor rates are not permitted. JEA will only pay up to 1.5X the straight rate for the Overtime hours.
4. All trades shall be local. No travel or per diem will be paid to trades.

Emergency Mobilization Fee

Emergency Mobilization Fee	Mobilization Fee Rate	Estimated Number of Mobilizations
Fee charged for 3-4 man labor crew with Labor Truck & Crane to pull well pump. Mobilization will only be paid for the first mobilization for the job. Any trips for materials or back to shop will not be paid for by a mobilization fee.	$ 100.00	15
	Subtotal - Mobilizations	**$ 1,500.00**
	Subtotal - Labor (Standard) and Mobilizations	**$ 59,000.00**

Fixed Price Scopes of Work

Fixed Price Scopes of Work	Forecast Quantity	Lump Sum Price per Fixed Price Job Scope	Extended Total
Draw Down Test - includes mobilization, testing & reports	8	$ 750.00	$ 6,000.00
Removal of well pump with 100 HP motor, set 100' deep, w. 10" column	4	$ 10,000.00	$ 40,000.00
Installation of well pump, 100 HP motor, set 100' deep w. 10" column	4	$ 11,000.00	$ 44,000.00
Videologging of well, 1,000 foot depth, cased to 450 feet	3	$ 3,200.00	$ 9,600.00
Geophysical logging, 1,000 foot dept, (4) parameters	2	$ 12,500.00	$ 25,000.00
Chlorination of a well, 1,000 foot depth, 20" diameter	2	$ 500.00	$ 1,000.00
Well flange fabrication, 20" diameter well, including 3 access ports and level tubes	4	$ 8,000.00	$ 32,000.00
Monthly rental rate for 1,000 gpm, 50 HP VTP	6	$ 500.00	$ 3,000.00
Cost per day for "fishing", retrieval of equipment from a 20" diameter 1,000 foot deep well	15	$ 2,000.00	$ 30,000.00
Crating charge for pump and discharge head for storage	4	$ 50.00	$ 200.00
Discharge piping for up to 60 linear feet of 8 inch PVC pipe	10	$ 1,500.00	$ 15,000.00
Cost per foot for additional discharge piping length	400	$ 16.00	$ 6,400.00
Supplemental Work Authorization (SWA) Used for JEA Project Manager Only	1	90,000	$ 90,000.00
		Subtotal - Fixed Price Scopes of Work	**$ 302,200.00**

Materials

Materials Description	Percent	Materials Estimate	Extended Total
Materials & Consumables Markup. For non-listed materials purchased, the Company shall provide the original invoice (Company Cost) for the materials purchased by the company. With the mark up percentage applied and show Company's final Price to JEA	45%	$ 20,000.00	$ 29,000.00
Listed Materials (Adjusted annually per American Metal Market)	**Forecast Qty.**	**Unit Price**	**Extended Total**
Column Pipe - 8" diameter at 10' sections	10	$ 800.00	$ 8,000.00
Column Pipe - 10" diameter at 10' sections	15	$ 900.00	$ 13,500.00
Shaft - 1 3/16" - 10' length	10	$ 250.00	$ 2,500.00
Shaft - 1 1/2" - 10' length	15	$ 350.00	$ 5,250.00
		Subtotal - Materials	$ 58,250.00

Subcontract or Equipment Rental Markup

Description	Percent - not to exceed 10% (for reference only)
Subcontractor Markup - not to exceed 10% - For specific work identified after contract execution, where JEA requires the Contractor to perform and the Contractor does not have the inhouse capability to perform.	10%

Total Bid Price (transfer total to Page 1 Appendix B - Bid Forms) $ 419,450.00

CONFLICT OF INTEREST DISCLOSURE FORM

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest, and they are detected by JEA, vendor may be **disqualified** from doing business with JEA.*
Questions about this form? Contact (JEA, fill in the blank)

JEA Bid/Solicitation/Contract Number:	Name of JEA Employee(s) Working on Vendor's Current Contract(s) with JEA:
1410901246	-0-
Vendor Name: Complete Services Well Drilling Inc	Vendor Phone: 904-693-8635
Vendor's Authorized Representative Name and Title: Cecil Cauley Auth. Signer	Authorized Representative's Phone: 904-562-8455

NAME(S) OF JEA EMPLOYEE(S) / PUBLIC OFFICER(S) WITH POTENTIAL CONFLICT OF INTEREST

Name of JEA public officer(s), employee(s), or relatives with whom there may be a potential conflict of interest. If more than five, attach a second form.	Relationship of JEA public officer(s)/employee(s) and/or relative(s) to vendor's company from list above (e.g. 1(a), 2, etc.). Please list all that apply:
1.	
2.	
3.	
4.	
5.	

☒ Vendor has no conflict of interest to report.

☒ Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any JEA officer or employee to obtain or maintain a contract.

☒ I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor.

Vendor's Authorized Representative Signature: Date: 12/12/2022

FOR JEA USE ONLY IF CONFLICT NOTED
This form has been reviewed by:

Name of JEA Ethics Officer:	Signature:	Date:
Note:		

FLORIDA TRENCH SAFETY ACT ACKNOWLEDGMENT

If this Project involves trench excavations that will exceed a depth of 5 feet, pursuant to Florida Statutes. Chapter 553, Part VI, Trench Safety Act will be in effect and the undersigned Bidder hereby certifies that such Act will be complied with during the construction of this Project.

Bidder acknowledges that included in the various items of the bid and in the total bid price are costs for complying with the Florida Trench Safety Act. Bidder further identifies the cost to be as summarized below:

Trench Safety Measure (Description)	Units of Measure (LF SY)	Quantity	Unit Cost	Extended Cost
A.				
B.				
C.				
D.				

TOTAL $ -0-

Complete Services

Appendix B - Bid Forms
1410901246 Well Services – Repair and Maintenance

Submit all Bid documents electronically as described in Appendix C – Zycus Supplier Instructions.

Company Name: AC Schultes of Florida dba Rowe Drilling

Company's Address: 7584 W Tennessee St, Tallahassee, FL 32304

License Number: 9377

Phone Number: 850-576-1271 FAX No: 850-575-6636 Email Address: juanc@acschultes.com

BID SECURITY REQUIREMENTS
☒ None required
☐ Certified Check or Bond (Five Percent (5%)

TERM OF CONTRACT
☐ One Time Purchase
☐ Annual Requirements
☒ Other, Specify – Three (3) Year

SAMPLE REQUIREMENTS
☒ None required
☐ Samples required prior to Bid Opening
☐ Samples may be required subsequent to Bid Opening

SECTION 255.05, FLORIDA STATUTES CONTRACT BOND
☒ None required
☐ Bond required 100% of Bid Award

QUANTITIES
☐ Quantities indicated are exacting
☒ Quantities indicated reflect the approximate quantities to be purchased Throughout the Contract period and are subject to fluctuation in accordance with actual requirements.

INSURANCE REQUIREMENTS

Insurance required

PAYMENT DISCOUNTS	
☐ 1% 20, net 30 ☐ 2% 10, net 30 ☐ Other _____ ☒ None Offered	

ENTER YOUR BID FOR SOLICITATION 1410901246	TOTAL RESPONSE PRICE
Total Response Price (Enter total from cell G54 in the Response Workbook)	$ 448,210.00

☒ **I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is".**

RESPONDENT CERTIFICATION

By submitting this Response, the Respondent certifies that it has read and reviewed all of the documents pertaining to this Solicitation, that the person signing below is an authorized representative of the Responding Company, that the Company is legally authorized to do business in the State of Florida, and that the Company maintains in active status an appropriate contractor's license for the work (if applicable). The Respondent also certifies that it complies with all sections (including but not limited to Conflict of Interest and Ethics) of this Solicitation.

We have received addenda

__1__ through __4__

Handwritten Signature of Authorized Officer of Company or Agent — 12-13-22 Date

Juan C. Cepeda, Vice President
Printed Name and Title

Appendix B – Minimum Qualifications Form
1410901246 Well Services – Repair and Maintenance

THE MINIMUM QUALIFICATIONS SHALL BE SUBMITTED ON THIS FORM. IN ORDER TO BE CONSIDERED A QUALIFIED BIDDER BY JEA YOU MUST MEET THE MINIMUM QUALIFICATIONS LISTED BELOW, AND BE ABLE TO PROVIDE ALL THE SERVICES LISTED IN THIS SOLICITATION.

THE BIDDER MUST COMPLETE THE BIDDER INFORMATION SECTION BELOW AND PROVIDE ANY OTHER INFORMATION OR REFERENCE REQUESTED. THE BIDDER MUST ALSO PROVIDE ANY ATTACHMENTS REQUESTED WITH THIS MINIMUM QUALIFICATIONS FORM.

BIDDER INFORMATION

COMPANY NAME: A.C. Schultes of Florida dba Rowe Drilling

BUSINESS ADDRESS: 7584 W Tennessee St

CITY, STATE, ZIP CODE: Tallahassee, FL 32304

TELEPHONE: 850-576-1271

FAX: 850-575-6636

E-M AIL: juanc@acschultes.com

PRINT NAME OF AUTHORIZED REPRESENTATIVE: Juan C. Cepeda

SIGNATURE OF AUTHORIZED REPRESENTATIVE:

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE: Juan C. Cepeda, Vice President

MINIMUM QUALIFICATIONS:
Bidder shall have the following Minimum Qualifications to be considered eligible to submit a Bid in response to this Solicitation. It is the responsibility of the Bidder to ensure and certify that it meets the Minimum Qualifications stated below. A Bidder not meeting all of the following criteria will have their Bids rejected:

- Company shall have successfully performed two (2) similar contracts in the past two (2) years ending November 30, 2021
  - A similar contract is defined as an emergency or recovery service for a water well (greater than 10" diameter & greater than 400' deep).
  - Each contract shall have been greater than $10,000.00 in value.

- The company shall have a field office, crane, crane operator and technicians (a minimum of four 4) within a 150-mile radius of JEA headquarters, 21 West Church Street, Jacksonville, FL.
  - The crane shall be of sufficient size to install/remove a 14-inch vertical turbine pump including up to 120 feet of 12-inch diameter column pipe.

Please provide the reference information requested below.

Appendix B – Minimum Qualifications Form
1410901246 Well Services – Repair and Maintenance

1. REFERENCE

Reference Name: Christopher Pelfrey

Reference Phone Number: 850-978-1674

Reference Company Name: Okaloosa County

Address of Work: 31 7th Street, Shalimar, FL 32579

Reference E-Mail Address: cpelfrey@myokaloosa.com

Dates of Work/Number of Sites: 4/1/2021 to 9/30/2021

Description of Work including contract value: Contract value: $106,350

Work included removing oil lube pumping equipment, video and evaluate well, acidize and redevelop well, install New water lube pumping equipment. 12" well, 734' deep

2. REFERENCE

Reference Name: Jennifer Porter

Reference Phone Number: 850-891-5271

Reference Company Name: City of Tallahassee Florida

Address of Work: 1401 Arkansas Street Tallahassee, FL

Reference E-Mail Address: Jennifer.Porter@talgov.com

Dates of Work/Number of Sites: 06/02/2022 to 8/04/2022

Description of Work including contract value: Contract value: $61,337.89

Pulled pumping equipment, performed downhole and side view video inspection. Disassembled pump for complete inspection, reassembled and reinstalled in well. Disinfected well, performance tested.

1410901246 Addendum 4 Appendix B - Bid Workbook
Well Services - Repair and Maintenance
(Only complete the Prices in Yellow Cells)

Company: Rowe Drilling a division of A.C. Schultes of Florida, Inc

Hourly Labor Rates				
Labor				
Labor Classification	Estimated Straight Time Hours	Straight Time Rate	Overtime Rate up to 1.5X Straight Time Rate (for Reference only)	Estimated Straight Time Labor Cost
Crane Operator	50	$ 150.00	$ 225.00	$ 7,500.00
Superintendent	100	$ 90.00	$ 135.00	$ 9,000.00
Engineering Support Services	100	$ 105.00	$ 157.50	$ 10,500.00
Shop Rate - Tool fabrication, Pump Inspection or Rebuild	100	$ 60.00	$ 90.00	$ 6,000.00
Field Service Technician	200	$ 60.00	$ 90.00	$ 12,000.00
			Subtotal - Labor (Straight Time)	$ 45,000.00

Notes

1. The contractor is to list their rates as requested on the Bid Workbook. If a line item on the Bid Workbook does not apply leave it blank and explain why it does not apply.
2. All estimates given on the Bid Workbook are just for the purpose of evaluation and are not a guarantee of work volume of any kind.
3. Double Time (2X) Labor rates are not permitted. JEA will only pay up to 1.5X the straight rate for the Overtime hours.
4. All trades shall be local. No travel or per diem will be paid to trades.

Emergency Mobilization Fee			
Emergency Mobilization Fee		Mobilization Fee Rate	Estimated Number of Mobilizations
Fee charged for 3-4 man labor crew with Labor Truck & Crane to pull well pump. Mobilization will only be paid for the first mobilization for the job. Any trips for materials or back to shop will not be paid for by a mobilization fee.		$ 1,500.00	15
		Subtotal - Mobilizations	$ 22,500.00
		Subtotal - Labor (Standard) and Mobilizations	$ 67,500.00

Fixed Price Scopes of Work			
Fixed Price Scopes of Work	Forecast Quantity	Lump Sum Price per Fixed Price Job Scope	Extended Total
Draw Down Test - includes mobilization, testing & reports	8	$ 1,600.00	$ 12,800.00
Removal of well pump with 100 HP motor, set 100' deep, w. 10" column	4	$ 3,700.00	$ 14,800.00
Installation of well pump, 100 HP motor, set 100' deep w. 10" column	4	$ 4,440.00	$ 17,760.00
Videologging of well, 1,000 foot depth, cased to 450 feet	3	$ 1,500.00	$ 4,500.00
Geophysical logging, 1,000 foot dept, (4) parameters	2	$ 19,000.00	$ 38,000.00
Chlorination of a well, 1,000 foot depth, 20" diameter	2	$ 5,000.00	$ 10,000.00
Well flange fabrication, 20" diameter well, including 3 access ports and level tubes	4	$ 4,200.00	$ 16,800.00
Monthly rental rate for 1,000 gpm, 50 HP VTP	6	$ 3,700.00	$ 22,200.00
Cost per day for "fishing", retrieval of equipment from a 20" diameter 1,000 foot deep well	15	$ 4,440.00	$ 66,600.00
Crating charge for pump and discharge head for storage	4	$ 750.00	$ 3,000.00
Discharge piping for up to 60 linear feet of 8 inch PVC pipe	10	$ 1,400.00	$ 14,000.00
Cost per foot for additional discharge piping length	400	$ 17.00	$ 6,800.00
Supplemental Work Authorization (SWA) Used for JEA Project Manager Only	1	90,000	$ 90,000.00
		Subtotal - Fixed Price Scopes of Work	$ 317,260.00

Materials			
Materials Description	Percent	Materials Estimate	Extended Total
Materials & Consumables Markup. For non-listed materials purchased, the Company shall provide the original invoice (Company Cost) for the materials purchased by the company. With the mark up percentage applied and show Company's final Price to JEA	20%	$ 20,000.00	$ 24,000.00
Listed Materials (Adjusted annually per American Metal Market or Platt Index)	Forecast Qty.	Unit Price	Extended Total
Column Pipe - 8" diameter at 10' sections	10	$ 930.00	$ 9,300.00
Column Pipe - 10" diameter at 10' sections	15	$ 1,000.00	$ 15,000.00
Shaft - 1 3/16" - 10' length	10	$ 465.00	$ 4,650.00
Shaft - 1 1/2" - 10' length	15	$ 700.00	$ 10,500.00
		Subtotal - Materials	$ 63,450.00

Subcontract or Equipment Rental Markup	
Description	Percent - not to exceed 10% (for reference only)
Subcontractor Markup - not to exceed 10% - For specific work identified after contract execution, where JEA requires the Contractor to perform and the Contractor does not have the inhouse capability to perform.	10%

Total Bid Price (transfer total to Page 1 Appendix B - Bid Forms)	$ 448,210.00

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 9

Formal Bid and Award System

Award #9 January 5, 2023

Type of Award Request: CONTRACT INCREASE
Requestor Name: William Carroll - Construction Specialist
Requestor Phone: (904) 665-7330
Project Title: Electric Plant Fire Protection System Inspection, Testing & Maintenance Services
Project Number: (30300 – lines 775, 1181, 30402 – line 1369, 30403 – line 1439)
Project Location: JEA
Funds: O&M (see back-up)
Business Unit Estimate: $785,101.68

Scope of Work:

The purpose of this Invitation to Negotiate (the "ITN") is to evaluate and select a contractor that can provide electric plant fire protection services for JEA (also referred to as the "Work" or "Services"). The scope of this contract is to secure the services of a qualified contractor which will provide inspection, testing and maintenance and repairs ("ITM") for fire alarm, fire sprinkler, CO2, Foam, Halon, and FM200 systems installed at their existing electric plants located throughout Duval County in Jacksonville, Florida. Specific items in the proposal include the following:

- ITM of fire alarm systems
- ITM of water-based fire suppression systems (to include fire pumps, backflow preventers, sprinklers/deluge, fire hydrants, PIV's, standpipe and hose systems, and underground fire main loop)
- ITM of dry pipe fire suppression systems
- ITM of Clean Agent (CO2, FM200, Halon, & FE-227) fire suppression systems
- ITM of Foam-based fire suppression systems
- Time & Material (T&M) rates for Maintenance/Repairs

JEA IFB/RFP/State/City/GSA#: 044-19
Purchasing Agent: Lovgren, Rodney Dennis
Is this a ratification?: NO

RECOMMENDED AWARDEE:

Name	Contact Name	Email	Address	Original Award	Contract Increase	New NTE
IMC FIRE PROTECTION LLC	Amanda Brown	abrown@imcfireprotection.com	3070 Blanding Blvd, Middleburg, FL 32068	$496,931.25	$785,101.68	$1,282,032.93
AEGIS FIRE & INTEGRATED SERVICES				$988,242.50	($785,101.68)	$203,140.82

Amount of Original Award: $1,485,173.75

Date of Original Award:	11/08/2018
Contract Increase Amount:	$785,101.68
New Not-To-Exceed Amount:	$1,282,032.93 (IMC only)
Length of Contract/PO Term:	Five (5) Years w/ One (1) - 1 Yr. Renewals
Begin Date (mm/dd/yyyy):	04/30/2019
End Date (mm/dd/yyyy):	04/29/2024
Renewal Options:	Yes -One (1) - One (1) Year Renewals
JSEB Requirement:	NA – Optional

Background/Recommendations:

Competitively bid and approved by Awards Committee on 04/18/2019. The original award is attached as back-up. The original award was to Aegis Fire & Integrated Services, LLC for $988,242.50 and IMC Fire Protection, Inc for $496,931.25 with a 70% / 30% split.

On 09/24/2021, Aegis Fire & Integrated Services, LLC was acquired by Summit Fire & Security, LLC. JEA spent a total of $203,140.82 on the Aegis / Summit contracts.

On 08/18/2022, Summit Fire & Securities, LLC's contract was terminated for default and approved by the Awards Committee, with the intent to have IMC Fire Protection, LLC to take over all contract work.

This request is to add the remaining unencumbered funds from the Summit Fire & Securities, LLC contract, to the IMC Fire Protection, LLC contract cap to support continued use of the contract through the original term. This contract increase amount is $785,101.68. The original award amount was based on historical usage and budget estimates available at the time of award, the original budget estimate and forecast is attached as backup. The Contract has CPI adjustments allowable at contract anniversary upon request by the supplier.

It is noted that term-based services contracts are typically not funded for the latter years of the contract. Should additional work develop during the contract term, or should JEA elect to renew the contract, additional funding may be required. Additional increases will be processed through the Awards Committee as necessary.

Request approval for a contract increase to IMC Fire Protection, LLC for fire protection inspections, testing and maintenance services in the amount of $785,101.68, for a new not-to-exceed amount of $1,282,032.93, subject to the availability of lawfully appropriated funds.

Manager	Howard, Josh, P. – Mgr. Energy Production Maintenance
Sr. Manager:	Pruitt, Chris – Sr. Mgr Generation Support
Director	Limbaugh, Margaret – Dir. Energy Production
VP:	Erixton, Ricky - VP Electric Systems

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

	Award $	$ 785,101.68	**remaining CO amount**	**Budget Number from Original Award**	**Budget Number from Original Award**	
			FY23	**FY23**	**FY24**	
Cost Center	O&M line	Exp. Type	$ 314,796.66	$ 297,034.75	$ 173,270.27	**$ 785,101.68**
30300	775	2006	$ 150,000.00	$ 150,000.00	$ 100,000.00	$ 400,000.00
30402	825	2006	$ 100,000.00	$ 75,000.00	$ 35,000.00	$ 210,000.00
30403	844	2006	$ 64,796.66	$ 72,034.75	$ 38,270.27	$ 175,101.68
			$ 314,796.66	**$ 297,034.75**	**$ 173,270.27**	**$ 785,101.68**

Approved by the JEA Awards Committee

Date: 04/18/2019 Item# 11

Formal Bid and Award System

Award #11 April 18, 2019

Type of Award Request: INVITATION TO NEGOTIATE (ITN)
Request #: 6471
Requestor Name: Guevarra, Larry
Requestor Phone: (904) 665-6332
Project Title: Electric Plant Fire Protection System Inspection, Testing & Maintenance Services
Project Number: (30300 – lines 1178, 1181, 30402 – line 1369, 30403 – line 1439)
Project Location: JEA
Funds: O&M
Budget Estimate: $1,725,000.00
Scope of Work:

The purpose of this Invitation to Negotiate (the "ITN") is to evaluate and select a contractor that can provide electric plant fire protection services for JEA (also referred to as the "Work" or "Services"). The scope of this contract is to secure the services of a qualified contractor which will provide inspection, testing and maintenance and repairs ("ITM") for fire alarm, fire sprinkler, CO2, Foam, Halon, and FM200 systems installed at their existing electric plants located throughout Duval County in Jacksonville, Florida. Specific items in the proposal include the following:

- ITM of fire alarm systems.
- ITM of water-based fire suppression systems (to include fire pumps, backflow preventers, sprinklers/deluge, fire hydrants, PIV's, standpipe and hose systems, and underground fire main loop).
- ITM of dry pipe fire suppression systems.
- ITM of Clean Agent (CO2, FM200, Halon, & FE-227) fire suppression systems.
- ITM of Foam-based fire suppression systems.

Time & Material (T&M) rates for Maintenance/Repairs.

This Service Contract will positively affect JEA Measures of Value:

- Customer Value: Maintenance programs increase safe operational reliability and stability
- Financial Value: Correctly planned and timed fire inspections and maintenance, limit personnel and equipment liability during emergencies, downtime and need to purchase ad hoc services at higher rates.

JEA IFB/RFP/State/City/GSA#: 044-19
Purchasing Agent: Lovgren, Rodney
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
AEGIS FIRE & INTEGRATED SERVICES LLC	Wayne Lulli	wlulli@aegisfis.com	156 Industrial Loop S. Orange Park, FL 32073	(904) 215-9669	$988,242.50
IMC FIRE PROTECTION LLC	Max Moody	mmoody@islandsmechanical.com	3070 Blanding Blvd, Middleburg, FL 32068	(904) 406-6100	$496,931.25

Amount for entire term of Contract/PO: $1,485,173.75
Award Amount for remainder of this FY: $123,764.48
Length of Contract/PO Term: Five (5) Years w/ One (1) - One (1) Year Renewals
Begin Date (mm/dd/yyyy): 04/30/2019
End Date (mm/dd/yyyy): 04/30/2024
Renewal Options: Yes, One (1) - One (1) Year Renewals
JSEB Requirement: N/A - Optional

BIDDERS:

Name	Original Amount	Original Rank	BAFO Amount	BAFO Rank
AEGIS FIRE	$1,835,787.50	3	$1,411,775.00	1
ISLANDS MECHANICAL CONTRACTORS	$1,656,437.50	1	$1,656,437.50	2
W.W. GAY FIRE PROTECTION INC.	$1,700,287.50	2	$1,700,287.50	3
CINTAS	$1,902,297.50		N/A	
AGENT FIRE	$1,999,428,72		N/A	
WIGINTON FIRE SYSTEMS	$2,185,267.38		N/A	
M.J. WOOD	$4,050,590.00		N/A	

Background/Recommendations:
Advertised on 01/24/2019. Five (5) prime contractors attended the optional pre-response meeting held on 02/05/2019. At Response opening on 03/15/2019, JEA received seven (7) Responses. Three (3) Respondents were short-listed and invited to submit Best and Final Offers (BAFO). JEA evaluated the companies only on price. Aegis Fire and Island Mechanical Contractors (IMC) are the lowest responsive and responsible Respondents. A copy of the BAFO bid forms, workbooks and BAFO evaluation summary are attached as backup.

The work for this contract will be completed on a call out basis for repair work, and coordinated during operations and outages for inspections and testing. Payments will be made in accordance with the unit prices on the bid workbook. The unit prices are fixed for the term of the contract. The award amount of $1,485,173.75 is approximately $240,000.00 less than the budget estimate $1,725,000.00. A budget reduction maybe made in future fiscal years, based on repair and maintenance actuals.

Aegis Fire lowered their aggregate price $424,012.50 in the BAFO round, moving from the third ranked company to the first ranked company. The other two companies invited to the BAFO round did not change their price. Aegis's rates are approximately 9.7% lower & IMC's rates 6.0% higher as compared

to the incumbent (Cintas). Based on the 70/30 split there is a forecast total net savings of $78,096.25.00 over the five year term (see attached backup).

045-19 – Request approval to award a contract to Aegis Fire ($988,242.50) and IMC ($496,931.25) for Electric Plant Fire Protection System Inspection, Testing and Maintenance Services in the amount of $1,485,173.75, subject to the availability of lawfully appropriated funds.

Manager:	Akrayi, Jamila R. - Mgr Project Management
Director:	Limbaugh, Margaret Z. - Dir Energy Project Management
Sr. Director:	Acs, Gabor - Sr Director Engineering & Projects
VP:	Anders, Caren B. - VP/GM Energy

APPROVALS:

4/18/19

Chairman, Awards Committee **Date**

4/18/19

Manager, Operating Budgets **Date**

Approved by the JEA Awards Committee

Date: 08/18/2022 Item# 3

Formal Bid and Award System

Award #3 August 18, 2022

Type of Award Request: CONTRACT TERMINATION
Requestor Name: Pruitt, Chris, Sr. Mgr. Generation Support
Requestor Phone: (904) 665-4090
Project Title: Electric Plant Fire Protection System Inspection, Testing & Maintenance Services
Project Number: N/A
Project Location: JEA
Funds: O&M
Budget Estimate: $1,725,000.00
Scope of Work:

The purpose of this Invitation to Negotiate (the "ITN") is to evaluate and select a contractor that can provide electric plant fire protection services for JEA (also referred to as the "Work" or "Services"). The scope of this contract is to secure the services of a qualified contractor which will provide inspection, testing and maintenance and repairs ("ITM") for fire alarm, fire sprinkler, CO2, Foam, Halon, and FM200 systems installed at their existing electric plants located throughout Duval County in Jacksonville, Florida. Specific items in the proposal include the following:

- ITM of fire alarm systems
- ITM of water-based fire suppression systems (to include fire pumps, backflow preventers, sprinklers/deluge, fire hydrants, PIV's, standpipe and hose systems, and underground fire main loop)
- ITM of dry pipe fire suppression systems
- ITM of Clean Agent (CO2, FM200, Halon, & FE-227) fire suppression systems
- ITM of Foam-based fire suppression systems

Time & Material (T&M) rates for Maintenance/Repairs.

A complete scope of work is provided in Appendix A - Technical Specifications.

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JEA IFB/RFP/State/City/GSA#: 044-19
Purchasing Agent: Lovgren, Rodney
Is this a Ratification?: NO
JSEB Requirement: N/A

BIDDERS:

Vendor Name	Amount	Original Rank	BAFO AMOUNT	BAFO Rank
AEGIS FIRE & INTEGRATED SERVICES LLC	$1,835,787.50	3	$1,411,775.00	1

ISLAND MECHANICAL CONTRACTORS FIRE PROTECTION LLC.	$1,656,437.50	1	$1,656,437.50	2
W. W. GAY FIRE PROTECTION INC.	$1,700,287.50	2	$1,700,287.50	3
CINTAS	$1,902,297.50			
AGENT FIRE	$1,999,428.72			
WIGINTON FIRE SYSTEMS	$2,185,267.38			
M.J. WOOD	$4,050,590.00			

Background/Recommendations:

Previously Awarded on 04/18/2019 to Aegis Fire & Integrated Services LLC in the amount of $988,242.50, as well as to Island Mechanical Contractors Fire Protection LLC in the amount of $496,931.25 to split the services needed at Brandy Branch Generating Station (BBGS) and Northside Generating Station (NGS).

JEA has previously communicated performance concerns to Aegis Fire & Integrated Services LLC in August of 2021 for performance at BBGS. JEA processed performance review scorecards and ultimately JEA allowed Aegis to discontinue service at the BBGS facility, and continued services at NGS facility, which had not experienced performance issues at the time. Fire & Security LLC following IMC. IMC took over the full workload and has performed well.

In September of 2021, Aegis Fire & Integrated Services LLC, was acquired by Summit Fire & Security LLC. JEA began experiencing performance issues in the fourth quarter of 2021 including the deployment of unqualified technicians to JEA. They did not meet the minimum required safety training required by JEA and OSHA and often showed up without required PPE. In addition, JEA found errors in billing including double invoicing for projects.

This request is to terminate the contract for default with Summit Fire & Security LLC, and suspend bidding privileges for two (2) years, and continue to use IMC Fire Protection LLC as the primary and only vendor for the services. The performance issues with Summit Fire & Security LLC are documented in the attached draft termination for default letter, and a contract increase to add funding to IMC Fire and Protection LLC is forthcoming.

Request approval to terminate the contract with Summit Fire & Security LLC for electric plant fire protection services, and suspend bidding privileges for two (2) years.

Sr. Manager: Pruitt, Chris, Sr. Mgr. Generation Support
Director: Limbaugh, Margaret Z. – Dir. Energy Project Management
VP: Erixton, Ricky D. VP - Electric Systems

APPROVALS:

Stephen Datz 8/18/2022

Chairman, Awards Committee **Date**

Stephanie M Nealy 8/18/2022

Budget Representative **Date**

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 10

Formal Bid and Award System

Award #10 January 5, 2023

Type of Award Request: CONTRACT AMENDMENT
Request #: 6877
Requestor Name: Hightower, Justin – Manager Fleet Services
Requestor Phone: (904) 665-8357
Project Title: JEA Heavy Duty Vehicle Procurement Acquisition
FY24 Project Numbers: TBD
Project Location: JEA
Funds: CAPITAL
Business Unit Estimate: $1,092,000.00

Scope of Work:

The purpose of this contract amendment is to modify the original JEA Heavy Duty Vehicle Procurement Acquisition Award and subsequent amendments' amounts. The purpose of the original Invitation to Negotiate (the "ITN") was to solicit pricing for the purchase of eleven (11) heavy duty vehicles for JEA's FY22 and FY23 requirements. This contract amendment is to purchase an additional six (6) 19cyd dump trucks for FY24. The four (4) dump trucks are being bought for FY24 Water expansion and two (2) dump trucks are being bought for Electric replacement.

JEA IFB/RFP/State/City/GSA#: 1410462846-22
Purchasing Agent: Eddie Bayouth
Is this a ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Vendor Contact	Email	Address	Change Amount	Total Contract Amount
ORLANDO FREIGHTLINER	Eamon Kealy	EKealy@orlandofreightliner.com	2455 S Orange Blossom Trail, Apopka, FL 32703	$1,014,174.00	$3,141,410.00

Amount of Original Award: $3,046,472.17
Date of Original Award: 02/03/2022
Contract Increase Amount: $1,014,174.00
New Not-To-Exceed Amount: $4,060,646.17
List of Previous Change Orders/ Renewals:

Name	Original Award	Contract Amendment	Administrative	Contract Increase	Contract Amendment	New Not to Exceed
Date	02/03/2022	03/03/2022	05/31/2022	06/30/2022	01/05/2023	01/05/2023
CUMBERLAND INTERNATIONAL TRUCKS OF FLORIDA, LLC	$810,096.17	$0.00	$0.00	$0.00	$0.00	$810,096.17
KENWORTH OF JACKSONVILLE	$460,888.00	$0.00	$0.00	$0.00	$0.00	$460,888.00
ORLANDO FREIGHTLINER	$1,001,043.00	$320,548.00	$34,200.00	$419,697.00	$1,014,174.00	$3,141,410.00
Total	$2,272,027.17	$320,548.00	$34,200.00	$419,697.00	$1,014,174.00	$4,060,646.17

Length of Contract/PO Term: Project Completion (June 2024 Estimate)
Begin Date (mm/dd/yyyy): 02/04/2022
End Date (mm/dd/yyyy): Project Completion (June 2024 Estimate)
Renewal Options: No – Project Completion
JSEB Requirement: N/A – No JSEBs available

Background/Recommendations:

Originally bid and approved by the Awards Committee on 02/03/2022 for $2,272,027.17. Award was amended and increased by $320,548.00 on March 3, 2022, to double the amount of Group Four (4) assets, 5 Ton - 19 Cubic Yard Dump Trucks. A manufacturer surcharge of $3,800.00 per vehicle for the original nine (9) vehicles (total of $34,200.00) was added on 05/31/2022 at the request of Orlando Freightliner in lieu of utilizing the PPI adjustment as defined in the solicitation. The contract was further amended and increased on 06/30/2022 based on JEA Electric scheduled replacement of three (3) 3-Ton Cargo Reel Trucks for FY23.

JEA is requesting this contract amendment to purchase an additional six (6) 19cyd dump trucks for FY24. The four (4) dump trucks are being bought as part of FY24 Water expansion and two (2) dump trucks are being bought for FY24 Electric replacement. Fleet had budgeted $182,000.00 per truck based on average increases of around 13.6% increases they have seen in heavy duty trucks over the last two (2) years. Orlando Freightliner offered slots to build these trucks in Q4 of FY23, with a price increase of only 3% from this year's purchase price. It should be noted that this 3% increase is substantially lower than the 13.6% increase noted above that we have seen in heavy duty vehicles and lower than the 7.4% annual increase in PPI recorded for November and deemed to be in the best interest of JEA to accept in lieu of a new bid.

Request approval to award an amendment for an increase to the contract with Orlando Freightliner for the purchase of vehicles for JEA's FY24 heavy duty fleet capital requirements in the amount of $1,014,174.00, for a total not-to-exceed amount of $4,060,646.17, subject to the availability of lawfully appropriated funds.

Manager: Justin Hightower – Manager, Fleet Services
Director: Brunell, Baley – Director, Facilities and Fleet Services
VP: McElroy, Alan. – VP Supply Chain & Operations Support

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

Bayouth, Edward W.

From: Oca, Christi L
Sent: Thursday, December 8, 2022 4:30 PM
To: Bayouth, Edward W.
Cc: Lynn, Matthew C.; Hightower, Justin P
Subject: FW: Contract Extension - 19 CYD Dump Truck

Here is the email from Eamon in regards to the pricing of the 19 CYD Dump Trucks for the contract extension with Orlando Freightliner

Our budget was $182K. These will not arrive until FY24, therefore project numbers are not available. 4 will be for water expansion and 2 will be electric replacement.

If you have any questions, please let me know.

Thank you,

Christi Oca
Associate Mgr Fleet Capital & Logistics Support
Direct: (904) 665-4269
Mobile: (904) 708-0080

From: Eamon Kealy <EKealy@orlandofreightliner.com>
Sent: Wednesday, December 7, 2022 2:38 PM
To: Oca, Christi L <LittCL@jea.com>
Cc: Lynn, Matthew C. <lynnmc@jea.com>
Subject: RE: Contract Extension - 19 CYD Dump Truck

Hi Christi,

Thank you. The total on the 19 cu.yd dump trucks will be $169029.00 each and should you decide to add the 14 cu.yd the total for that truck is $162654.00 each.

Regards
Eamon

From: Oca, Christi L <LittCL@jea.com>
Sent: Tuesday, December 06, 2022 8:57 AM
To: Eamon Kealy <EKealy@orlandofreightliner.com>
Cc: Lynn, Matthew C. <lynnmc@jea.com>
Subject: Contract Extension - 19 CYD Dump Truck

Hi Eamon,

I received the go ahead from procurement on the six (6) 19 CYD Dump trucks. We will look to do the 14 CYD as a bid.

Can you please provide the official cost of the trucks? We will provide that to procurement so it can go to awards and increase your current PO.

Thank you so much!!!

Christi Oca
Associate Mgr Fleet Capital & Logistics Support
Direct: (904) 665-4269
Mobile: (904) 708-0080

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 11

Formal Bid and Award System

Award #11 January 5, 2023

Type of Award Request:	REQUEST FOR PROPOSAL (RFP)
Requestor Name:	Roh, Mir
Requestor Phone:	(904) 665-5887
Project Title:	138kV / 27.6kV X 13.8 kV Transformers for Eagle Substation
Project Location:	JEA
Project Number:	8008477
Funds:	Capital
Business Estimate:	3,500,000.00

Scope of Work:

JEA is soliciting Proposals for the equipment design, fabrication, and delivery of two (2) one 138kV / 27.6kV X 13.8 kV transformer for the Eagle Substation (the "Work" or "Services").

The scope of services the company will provide includes, however, is not limited to:

- Equipment Design
- Equipment Engineering
- Materials procurement
- Fabrication
- Drawings
- Delivery - Offload & Set on the pad

JEA is requesting pricing for the two options listed in the Proposal Workbook.

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JEA IFB/RFP/State/City/GSA#:	1410795646
Purchasing Agent:	Lovgren, Rodney D.
Is this a Ratification?:	NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Address	Phone	Amount
PROLEC – GE WAUKESHA INC	Marianna Escobedo	mariana.escobedo @prolec.energy.com	262-446-8499	$3,424,480.00

Amount for entire term of Contract/PO:	$3,424,480.00
Award Amount for remainder of this FY:	$342,448.00
Length of Contract/PO Term:	Project Completion
Begin Date (mm/dd/yyyy):	01/15/2023
End Date (mm/dd/yyyy):	Project Completion (Estimate 5/15/2025)
JSEB Requirement:	N/A - Specialty Services

PROPOSERS:

Name	Unit Price	Evaluated Price
PROLEC - GE WAUKESHA INC	$1,712,240.00	$4,032,080.00
PTI TRANSFORMERS LP	$2,660,000.00	$6,232,639.72
HITACHI ENERGY	$3,266,100.00	$7,424,220.79

Background/Recommendations:

Advertised on 11/15/2022. At response opening on 12/20/2022, JEA received three (3) Proposals. The evaluation is based 100% on the evaluated price (which takes into account load losses and lead time). Prolec - GE Waukesha Inc was deemed the lowest priced responsible and responsive Proposer. A copy of the Bid Form and Bid Workbook is attached as backup.

The Bidders submit their unit price (actual equipment price) and are evaluated on an evaluated price, which takes into account load losses and lead time to determine the Awardee. The load losses are determined by the equipment designer and input into a cost of ownership calculation, and the lead time calculation was based on supplier lead time and a $20,000 price impact penalty per month of lead time greater than 20 months was used in the calculation to arrive at the evaluated price.

The award amount is 2.2% below the Pre-Proposal Budget Estimate. JEA negotiated a price adjustment based on market indices for 50% of the price to be adjusted through release to manufacture. Price is deemed reasonable.

1410795646 - Request approval to award a contract to Prolec - GE Waukesha Inc for the supply of two (2), 138kV / 27.6kV X 13.8 kV Transformers for Eagle Substation in the amount of $3,424,480.00, subject to the availability of lawfully approved funds.

Manager: Hamilton, Darrell D. - Mgr Transmission and Substation Projects
Director: Acs, Gabor – Sr. Dir. Engineering & Projects
VP: Melendez Melendez, Pedro A– VP Planning & Engineering Construction

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

1410972046 - APPENDIX B PROPOSAL FORM

RFP Two (2) 138 / 27.6 kVx13.8kV 45/60/75 MVA Transformers for Eagle Substation

COMPANY INFORMATION:

COMPANY NAME: Prolec-GE Waukesha, Inc.

BUSINESS ADDRESS: 400 South Prairie Avenue

CITY, STATE, ZIP CODE: Waukesha, Wisconsin 53186

TELEPHONE: (262) 446-8449

FAX:

EMAIL OF CONTACT: mariana.escobedo@prolec.energy

Total Evaluated Bid Price

Description	Total Bid Price
Total Evaluated Price from the Bid Workbook	$ 4,032,080.00
Lead Time in Months ARO (Not later than ~~28~~ **36** months ARO)	please see quote 70012212

Upload 1 electronic signed copy of this Proposal your Proposal Submission

Company's Certification

By submitting this Proposal, the Proposer certifies that it has read and reviewed all of the documents pertaining to this RFP and agrees to abide by the terms and conditions set forth therein, that the person signing below is an authorized representative of the company, that the company is legally authorized to do business in the State of Florida, and that the company maintains in active status an appropriate license for the work. The company certifies that its recent, current, and projected workload will not interfere with the company's ability to Work in a professional, diligent and timely manner.

The Proposer certifies, under penalty of perjury, that it holds all licenses, permits, certifications, insurances, bonds, and other credentials required by law, contract or practice to perform the Work. The Proposer also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Company shall immediately notify JEA of status change.

We have received addenda 1 through 3

mariana escobedo — 12/20/2022

Signature of Authorize Officer of Company or Agent — Date

Mariana Escobedo/Application Engineer — (262) 446-8449

Printed Name & Title — Phone Number

1410972046 Addendum 3 - Supply of Two (2) –138kV / 27.6kV X 13.8 kV Transformers Eagle Substation (BIDDER SHALL FILL IN YELLOW CELLS)

Bidder Name	Prolec GE Waukesha	Manufacturer Name	Prolec GE Waukesha

#	Item	Description	Unit Price (Base Price)	Guaranteed No-Load Losses		Guaranteed Load Losses		Guaranteed Auxiliary Losses		Calculated Unit Price
				kW	Amount	kW	Amount	kW	Amount	
1	45/60/75 MVA	**138kV / 27.6 kV X 13.8 kV Transformer**	$ 1,712,240.00	31	$5,000	143	$1,000	11.6	$500	$2,016,040.00

#	Item	Description	Lead Time evaluation # / Month	Low Lead Time (L) (in weeks)	Average Lead Time (Months) = ((L+H)/2)4.33	High Lead Time (H) (in weeks)	Need by Date 9/2/2024, No Later Than 12/2/2024
2	**LEAD TIME**	Supplier will add Lead time in Weeks, which will be converted into months. For evaluation purposes, for a company that has a lead time over 20 months, the lead time will be evaluated starting at an initial $20,000.00 penalty in price evaluation and then incrementally at $20,000.00 / month (prorata) and will be included in the Total Evaluated Bid Price.	**($20,000.00)**	52	20.0	121	$0.00

Total Evaluated Bid Price (Enter this Price on the Response form. This will be the price used to evaluate reponses for the purposes of Ranking. The highest evaluated Respondent will be the first to be negotiated with. This does not guarantee an Award, which is subject to successful negotiaton of terms and conditions and approval of the JEA awards committee and lawfully appropriated funds.	$4,032,080.00

MATERIALS AND SERVICE OPTIONS PRICING (BIDDER SHALL FILL IN YELLOW CELLS)

#	Material / Service Option	Description of Work	Unit Price	Qty
1	Field Serivce Technician	3 days of service during time period Monday - Friday, including travel and per diem.	$ 7,764.00	1 Lot
2	Additional Optional Training	5 days of training, including travel, per diem	$ 10,870.00	1 Lot
3	In and Out Costs	Move in and out of Storage	-	1 Lot
4	Storage Costs	If Delivery delayed > 30 days from Ready to Ship. Delivery delays < 30 days shall be absorbed by the Company	-	Per Month
5	Critical Spare Parts	One (1) HV bushing	$ 7,445.00	
6	Critical Spare Parts	One (1) LV bushing	$ 4,986.00	
7	Critical Spare Parts			

$ 1,712,240.00

Month
ARO

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Unit 1		Jan-23	###	###	###	May-23	###	###	###	####	Oct-23	####	####	Jan-24	Feb-24	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	####	####	Nov-25	####	####	Feb-26	Mar-26
Design Approval (not to exceed 2 weeks after release of drawing design)	10%					$ 171,224.00																																		
Release to Manufacturing	20%										$ 342,448.00																													
Upon Shipment	60%													$ 1,027,344.00																										
Final Acceptance by JEA (NTE 30 post Delivery)	10%														$ 171,224.00																										
Unit 2																																								
Design Approval (not to exceed 2 weeks after release of drawing design)	10%					$ 171,224.00																																		
Release to Manufacturing	20%																																			$ 342,448.00				
Upon Shipment	60%																																						$ 1,027,344.00	
Final Acceptance by JEA (NTE 30 post Delivery)	10%																																							$ 171,224.00

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 12

Formal Bid and Award System

Award #12 January 5, 2023

Type of Award Request:	CONTRACT INCREASE
Requestor Name:	Gillean, Keith - Project Administrator Senior Construction
Requestor Phone:	(904) 665-6332
Project Title:	GE Long Term Service Agreement (LTSA) – Inspection, Maintenance and Repair Services
Project Number:	See Attached
Project Location:	JEA
Funds:	Capital
Budget Estimate:	$43,153,955.12

Scope of Work:

This request covers Amendment #8 to provide additional funding for the General Electric International Long-Term Services Agreement (LTSA). The LTSA provides for Inspection, Maintenance and Repair of JEA's fleet of General Electric combustion turbine fleet at Brandy Branch Generating Station, Kennedy Generating Station and Greenland Energy Center. The services include, but are not limited to:

- Routine Maintenance Hot Gas Path Inspections
- Unplanned Maintenance – Outages
- Spare Parts Supply
- Parts Refurbishment
- Overall and Repairs upon request and negotiation of price
- Onsite Technical Support

JEA IFB/RFP/State/City/GSA#:	CPA 19084
Purchasing Agent:	Lovgren, Rodney Dennis
Is this a Ratification?:	NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Address	Phone	Amount
GENERAL ELECTRIC INTERNATIONAL	Creston Dempsey	4200 Wildwood Pkwy. Atlanta GA 30339	(770) 480 4009	$43,153,955.12

Amount of Original Award:	$45,700,000.00
Date of Original Award:	06/26/2000
Change Order Amount:	$43,153,955.12

List of Previous Change Order/Amendments:

CPA #	Amount	Date
19084	$54,200,000.00	12/30/2003
19084	$60,000,000.00	12/28/2009
19084	$30,100,000.00	12/31/2014
19084	$74,447,500.00	12/21/2017
19084	$22,271,269.00	03/11/2021

New Not-To-Exceed Amount: $329,872,724.12

Begin Date (mm/dd/yyyy): 06/26/2000

End Date (mm/dd/yyyy): 12/31/2028

JSEB Requirement: N/A

Background/Recommendations:

Since 06/26/2000, JEA has had a Long-Term Parts and Service Agreement (LTSA) for the GE Combustion Turbines located at Brandy Branch Generating Station, Kennedy Generating Station and Greenland Energy Center. Subsequent to the initial agreement, seven (7) amendments have been approved for the GE LTSA, bringing the contract total indebtedness to $286,718,769.00. The latest amendment (amendment 7) associated award that was approved by the awards committee 03/11/2021, is attached as back-up.

This request is to add funds for O&M and Capital projects in the amount of $43,153,955.12, to allow continued use and is intended to support planned inspections and outage support through the term of the contract. Overhaul and major repair work is not contemplated in this increase. The original award amount was based on available funding and estimates available at the time of award. The inspections are subject to 2.5% annual price adjustments allowable at contract anniversary.

It should be noted that term-based services contracts are typically not funded for the latter years of the contract. Should additional work develop during the contract term, or should JEA elect to renew the contracts, additional funding may be required. Additional increases will be processed through the Awards Committee as necessary.

Request approval to award Amendment #8 to General Electric International for funding of the inspections and maintenance and repair services in the amount of $43,153,955.12, for the new not-to-exceed amount of $329,872,724.12, subject to the availability of lawfully appropriated funds.

Manager: Akrayi, Jamila R. – Mgr. Project Management

Sr. Direct: Acs, Gabor – Sr. Dir. Engineering & Projects

VP: Melendez, Pedro A– VP Planning & Engineering Construction

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Realy 1/06/2023

Budget Representative **Date**

Approved by the JEA Awards Committee

Date: 03/11/2021 Item# 4

Formal Bid and Award System

Award #4 March 11, 2021

Type of Award Request: CONTRACT AMENDMENT
Requestor Name: Gillean, Keith
Requestor Phone: (904) 665-6332
Project Title: GE Long Term Service Agreement (LTSA) - Amendment 7 – BBGS CT1 and KGS CT7 combustion turbine rotor replacements and upgrades
Project Number: 069-07 - KGS CT7, 066-42 BBGS CT1
Project Location: JEA
Funds: Capital
Budget Estimate: $22,271,269.00
Scope of Work:

This request covers Amendment #7 which has been negotiated with General Electric International to provide repairs (rotor replacements and upgrades) for Brandy Branch Generating Station Unit 1 (BBGS 1) and Kennedy Generating Station Unit 7 (KGS 7). As a part of this project, equipment upgrades will be made to improve efficiency and heat rates as identified in the attached proposal. The terms and conditions of contract 19084 will be govern the agreement and upgrade project.

JEA IFB/RFP/State/City/GSA#: CPA 19084
Purchasing Agent: Lovgren, Rodney Dennis
Is this a Ratification?: NO
RECOMMENDED AWARDEE(S):

Name	Contact Name	Address	Phone	Amount
GENERAL ELECTRIC INTERNATIONAL	Creston Dempsey	4200 Wildwood Pkwy. Atlanta GA 30339	(770) 480 4009	$22,271,269.00

Amount of Original Award: $45,700,000.00
Date of Original Award: 06/26/2000
Change Order Amount: $22,271,269.00
List of Previous Change Order/Amendments:

CPA #	Amount	Date
19084	$54,200,000.00	12/30/2003
19084	$60,000,000.00	12/28/2009
19084	$30,100,000.00	12/31/2014
19084	$74,447,500.00	12/21/2017

New Not-To-Exceed Amount: $286,718,769.00
Begin Date (mm/dd/yyyy): 06/26/2000
End Date (mm/dd/yyyy): 12/31/2028

JSEB Requirement: N/A

Background/Recommendations:

Since 06/26/2000, JEA has had a Long Term Parts and Service Agreement (LTSA) for the GE Combustion Turbines located at Brandy Branch Generating Station, Kennedy Generating Station and Greenland Energy Center. Subsequent to the initial agreement, six (6) amendments have been approved for the GE LTSA bringing the contract total indebtedness to $264,447,500.00. The latest amendment associated award that were approved by the awards committee are attached as back-up.

The Kennedy CT7 unit is a peaking gas turbine that was placed in service in 2000. It is a starts based unit which means after 900 fired starts the unit is required to undergo major maintenance to overhaul (referred to as a Hot Gas Path or HGP Inspection). Historically this unit has only had 50 – 100 starts a year making the time between outages in the 10 – 12 year range. At the retirement of SJRPP, the simple cycle units (Kennedy 7 & 8, Brandy Branch 1, Greenland 1&2) all saw an increase in number of starts per year as they were called on for load to replace what was formerly supplied by the Power Park. The increase in starts has moved the original outage dates for all units up in time such that CT7 is now scheduled for an outage in the fall of next year or even earlier depending on how many more starts it has. The increase in starts moved the GEC units up by 5 years for outages. This has severely compressed planning for outage work.

CT7 and BB1 both have a compressor design referred to the flat slot bottom which results in cracking of compressor wheels over time and is aggravated by starts on the unit. CT7 and BB1 are both being limited by the OEM on the remaining number of starts the solution of which is to replace the compressor wheels. This can be resolved either by sending the gas turbines back to the factory for repair (~3 – 4 month process) or replacing them with another unit (no time delay during outages – just an exchange). JEA has selected the replacement option.

The designs for the compressors for CT7 and BB1 are referred to as “unflared” rotors. In the time between delivery of BB1 and the remaining units we own, GE upgraded the design to a “flared” rotor which refers to the size of the inlet to the compressor – more air means more megawatts so with a straightforward design change GE could increase the unit output. The remainder of the JEA fleet are flared units and as such, JEA is electing to convert CT7 and BB1 to flared units for standardization across the fleet as well as added output.

JEA discussed with the OEM – GE and several other companies different options including 1) exchanges of JEA units with other rotors that had been upgraded, 2) exchange with a like kind unflared rotor, and 3) exchange with a flared rotor, as well as several other options.

JEA has elected to initiate this repair and upgrade as a change order with the OEM to the existing LTSA for the follow reasons:

1.) GE has experience in performing this type of upgrade project, whereas other companies either have not completed a flared unit conversion or do not have access to components.
2.) Buying the equipment from GE and using another company to perform the installation would present more risks in project execution and warranty coverage.
3.) Using the existing LTSA will allow application of the same terms and conditions applied to all units.
4.) The subject units are currently covered in the LTSA for the inspection cycles.

JEA has negotiated pricing for BBGS CT1 and KGS CT7 for rotor repairs and various upgrades as follows:

New unit rotor cycle time is 18-24 months due to current material shortages.

- Combined Units (BBGS and KGS) equipment Price - $21,653,715.00
- BBGS CT 1 – Installation price at Major Outage - $308,777.00
- KGS CT 1 – Installation price at Major Outage - $308,777.00

Based on JEA evaluation of the purchase of direct replacement refurbished rotors to used and new equipment, and when comparing installation price to that of existing contract and other recent repair contract pricing the pricing is deemed to be reasonable.

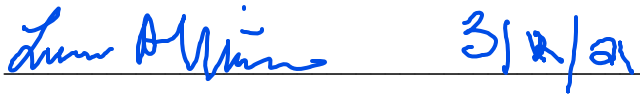
Request approval to award Amendment #7 to General Electric International for repair and upgrades to BBGS CT1 and KGS CT7 in the amount of $22,271,269.00, for the new not-to-exceed amount of $286,718,769.00, subject to the availability of lawfully appropriated funds.

Manager: Akrayi, Jamila R. - Mgr Project Manage
Director: Limbaugh, Margaret Z. - Dir Energy Project
Sr. Direct: Acs, Gabor - Sr Dir Engineering & Projects
VP: Erixton, Ricky – VP Electric Systems

APPROVALS:

03/11/2021

Chairman, Awards Committee **Date**



Budget Representative **Date**

11i Supplier	11i Supplier Site	11i Amount Agreed	11i Amount Released	11i Remaining	R12 Number	R12 Supplier	R12 Supplier Site	R12 Amount Agreed	R12 Amount Released	R12 Remaining	NEW AMOUNT AGREED
GENERAL ELECTRIC INTERNATIONAL	ATLANTA	$159,900,000.00	$67,340,146.13	$92,559,853.87	19084	GENERAL ELECTRIC INTERNATIONAL	ATLANTA	$159,900,000.00	$1,345,000.00	$92,559,853.87	$93,904,853.87

		R-11 CPA Tracking				
Original Award	6/26/2000	$ 45,700,000.00				
C/O 1	12/30/2003	$ 54,200,000.00				
New Award Amount		**$ 99,900,000.00**			**Total Spend reconlliation**	
C/O 2	12/28/2009	$ 60,000,000.00	**spent in R-11**	**R-12 CPA Tracking**		
New Award Amount		**$ 159,900,000.00**	$ 65,995,146.13	**$ 93,904,853.87**	$ 65,995,146.13	
C/O 3	12/31/2014			$ 30,100,000.00		
New Award Amount				**$ 124,004,853.87**		
C/O 4	12/21/2017			$ 74,447,500.00		
New Award Amount				**$ 198,452,353.87**	$ 198,452,353.87	
	PO's that should have been against CPA, however, were not issued against correct site		116637	$530,000.00	$530,000.00	
			107740	$50,000	$50,000.00	
			103405	$381,362.31	$381,362.31	
			103405	$88,357.80	$88,357.80	
New Award Amount	correct CPA amount after C/O 4 (12/21/2017)			$ 197,402,633.76	$ 265,497,220.11	
			Amendment 7 NTE	**$ 22,271,269.00**	**287,768,489.11**	
			Sum not linked on Contract	$1,049,720.11	$ 286,718,769.00	sum if non-linked PO's are removed

069-07 - KGS CT7 066-42 BBGS CT1	$22,271,269.00

Project Number	Project Dates	% Payment	FY21 10/01/2020 - 09/30/2021	FY22 10/01/2021 - 09/30/2022	FY23 10/01/2022 - 09/30/2023	FY24 10/01/2023 - 09/30/2024	FY25 10/01/2024 - 09/30/2025	FY26 10/01/2025 - 09/30/2026	FY27 10/01/2026 - 09/30/2027	FY28 10/01/2027 - 09/30/2028	FY29 10/01/2028 - 09/30/2029
ARO Payment	10/1/2021	15%		$3,340,690.35							
Rotor to KGS	6/1/2022	25%		$5,567,817.25							
KGS 7 work comp.	12/1/2022	10%			$2,227,126.90						
ARO Payment	10/1/2022	15%			$3,340,690.35						
Rotor to BBGS	3/1/2023	25%			$5,567,817.25						
BBGS1 work comp	12/1/2023	10%				$2,227,126.90					
Totals	**$22,271,269.00**	**100%**		**$8,908,507.60**	**$11,135,634.50**	**$2,227,126.90**					
On PO	$20,044,142.10										
Remaining amount to Fund	$2,227,126.90										

Award 8 - Total Award Amount Tracking Zycus Contract - JEA10119

Award NTE from Amendment 7	from Oracle R-11	Oracle CPA tracking	less the Amount not linked to CPA	Listed CPA in Oracle - Amount Agreed at Amendment 7	Amount Released	Available on CPA almost enough for KGS Rotor Repairs
$286,718,769.00	$ 65,995,146.13	**$220,723,622.87**	$1,049,720.11	$ 219,673,902.76	$ 217,522,345.68	$ 2,151,557.08

From the Capital Budget Index 12/28/2022

Index No.	Project Status	Project Description	Last Update by Business Unit	FY23 Actuals + Encumbrances	FY23 Forecast	FY24 Forecast	FY25 Forecast	FY26 Forecast	FY27 Forecast	Forecast
064-02H6	Construction	BBGS - CT2 - Hot Gas Path Inspection #6	12/7/2022	$ 6,802,911.84	$ 7,369,397.00	$ -	$ -	$ -	$ -	$ 7,369,397.00
064-02H7	Planned	BBGS - CT2 - Hot Gas Path Inspection #7	12/7/2022	$ -	$ -	$ 300,000.00	$ 6,156,000.00	$ -	$ -	$ 6,456,000.00
064-03H6	Construction	BBGS - CT3 - Hot Gas Path Inspection #6	12/7/2022	$ 6,802,911.84	$ 7,369,397.00	$ -	$ -	$ -	$ -	$ 7,369,397.00
064-03H7	Planned	BBGS - CT3 - Hot Gas Path Inspection #7	12/7/2022	$ -	$ -	$ 300,000.00	$ 6,156,000.00	$ -	$ -	$ 6,456,000.00
066-04H3	Construction	BBGS - CT1 - Hot Gas Path Inspection #3	12/7/2022	$ -	$ 130,000.00	$ 6,670,000.00	$ -	$ -	$ -	$ 6,800,000.00
066-42	Construction	BBGS - CT1 - Rotor Replacement	12/7/2022	$ 8,908,507.60	$ 9,794,430.00	$ 3,079,800.40	$ -	$ -	$ -	$ 12,874,230.40
069-02H2	Planned	KGS - CT8 - Hot Gas Path Inspection #2	12/7/2022	$ -	$ -	$ -	$ -	$ 250,000.00	$ 5,450,000.00	$ 5,700,000.00
075-01H2	Planned	GEC - CT1 - Hot Gas Path Inspection #2	12/7/2022	$ -	$ -	$ -	$ 250,000.00	$ 5,550,000.00	$ -	$ 5,800,000.00
075-02H2	Planned	GEC - CT2 - Hot Gas Path Inspection #2	12/7/2022	$ -	$ -	$ 250,000.00	$ 5,550,000.00	$ -	$ -	$ 5,800,000.00
084-15	Planned	GEC - EX2100 Excitation Controls and LS2100 Static Starter System DFE Upgrade	12/7/2022	$ -	$ -	$ 447,516.00	$ 595,746.00	$ -	$ -	$ 1,043,262.00
		Encumbered Totals		$ 22,514,331.28	$ 24,663,224.00	$ 11,047,316.40	$ 18,707,746.00	$ 5,800,000.00	$ 5,450,000.00	$ 65,668,286.40
		Amount Needed for Change Order - Amendment 8		############						

	Award 8 - NTE Total	Award 8 - Oracle R12 NTE Total	
$ 43,153,955.12	**Amendment 8 increase Amount**	$ 43,153,955.12	
############	**Amendment 8 New Total Contract NTE**	**$ 262,827,857.88**	**Amendment 8 CPA NTE in Oracle**

All units Except BB#2 & BB#3

		Escalated Value	
2017	$4,700,000.00	$4,817,500.00	
2018	$4,817,500.00	$4,937,937.50	2.50%
2019	$4,937,937.50	$5,061,385.94	2.50%
2020	$5,061,385.94	$5,187,920.59	2.50%
2021	$5,187,920.59	$5,317,618.60	2.50%
2022	$5,317,618.60	$5,450,559.07	2.50%
2023	$5,450,559.07	$5,586,823.04	2.50%
2024	$5,586,823.04	$5,726,493.62	2.50%
2025	$5,726,493.62	$5,869,655.96	2.50%
2026	$5,869,655.96	$6,016,397.36	2.50%
2027	$6,016,397.36	$6,166,807.29	2.50%

Milestone Payments for BB#2 & BB#3

		Escalated Value	
2017	$5,850,000.00	$5,850,000.00	
2018	$5,850,000.00	$5,996,250.00	2.50%
2019	$5,996,250.00	$6,146,156.25	2.50%
2020	$6,146,156.25	$6,299,810.16	2.50%
2021	$6,299,810.16	$6,457,305.41	2.50%
2022	$6,457,305.41	$6,618,738.05	2.50%
2023	$6,618,738.05	$6,784,206.50	2.50%
2024	$6,784,206.50	$6,953,811.66	2.50%
2025	$6,953,811.66	$7,127,656.95	2.50%
2026	$7,127,656.95	$7,305,848.37	2.50%
2027	$7,305,848.37	$7,488,494.58	2.50%

2017 Price

2023 Price

JEA PO# 197793

Total Value as per Amendment # 7

$22,271,269.00

15%	$3,340,690.35	Upon PO issue
25%	$5,567,817.25	Kennedy Rotor Ship
10%	$2,227,126.90	Work Complete at Kennedy
15%	$3,340,690.35	Kennedy Old Rotor at Shop
25%	$5,567,817.25	Rotor Ship to Brandy Branch
10%	$2,227,126.90	Work Complete at Brandy Branch
Total	**$22,271,269.00**	
Current on PO	20,044,142.10	
Due	**$2,227,126.90**	

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 13

Formal Bid and Award System

Award #13 January 5, 2023

Type of Award Request:	EMERGENCY
Requestor Name:	Phelps, Charles - Material Handling Operator Maintainer II
Requestor Phone:	904-531-8360
Project Title:	Limestone Crushing Services
Project Number:	30205, Exp Type: 2006
Project Location:	JEA
Funds:	O&M
Business Unit Estimate	$860,000.00

Scope of Work:

The scope of work is to process up to 100,000 tons of oversized (3") limestone down to ¾" using temporary crusher plant and material handling equipment. Oversized limestone to be moved from the JEA limestone storage building to the processing plant, processed, and then returned to the limestone storage building. Some amount of material may be stockpiled outside of the building on a day-to-day basis depending on logistics. Material to be moved utilizing loaders and other appropriate equipment.

The arrival schedules of vessels are fluid, especially this far in advance. As of right now the estimated delivery date for the first vessel of 50,000 tons of oversized material is scheduled to arrive January 28th, 2023. JEA requires processing to begin immediately. Coordinating equipment & staffing must begin two weeks prior to delivery date to allow for set-up, safety training, site familiarization, and any necessary training on the equipment. The second vessel of 50,000 tons of oversized material is currently projected to arrive February 28th but is highly likely to be pushed out farther into the year. JEA estimates that it will take no more than four (4) months to process 100,000 tons (two (2)-months per vessel). Therefore, the project period is roughly January 9th, 2023, through May 26th, 2023.

JEA IFB/RFP/State/City/GSA#:	N/A
Purchasing Agent:	Lovgren, Rodney D.
Is this a Ratification?:	NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
RPM SOLUTION LLC	John Tankard	john@ rpmsolve.com	593 ALDERBROOK WAY LEXINGTON, KY 40515	(336) 707-7469	$860,000.00

Amount for entire term of Contract/PO:	$860,000.00
Award Amount for remainder of this FY:	$860,000.00

Length of Contract/PO Term: Project Completion
Begin Date (mm/dd/yyyy): 01/15/2023
End Date (mm/dd/yyyy): 06/30/2023
JSEB Requirement: N/A

BIDDERS:

Name	Amount	Comments
RPM SOLUTIONS LLC	$860,000.00	
ONSITE CONCRETE CRUSHING, LLC	$775,000.00	Not Responsive
NORTH IRRIGATION, INC	$870,000.00	

Background/Recommendations:

JEA originally planned on renting crushing equipment and using temporary labor contracts to support manpower needs to crush oversized limestone being shipped from an alternate source.

Initially, JEA coordinated renting crushing equipment (which required permitting) and began working with Workspend in November to acquire manpower to support planned operation. Over several weeks, JEA found that WorkSpend was not able to acquire manpower of the quality and quantity required to be ready to support required operations. In parallel to this, JEA requested contract operations personnel from the existing JEA GC to acquire rates to support crushing operations. JEA found that the GC contractors that were willing to provide manpower, had the same issues in acquiring short term temporary labor as WorkSpend.

As it became apparent temporary labor was going to be an issue, JEA contacted crushing service companies to support the need, three companies were contacted and walked through the operations. Of the three (3) companies, JEA found RPM to be the responsive & responsible Responder that could support both operating JEA's rented equipment and bringing equipment to Jacksonville to support the immediate need. JEA communicated to the lowest bidder they were found non-responsive and not to be considered in award (JEA discussed the companies submitted response, noted, they had other obligations, would need to get equipment permits and had limited manpower to support JEA's need). JEA is awarding from the O&M budget and based on the multiple quotes received pricing is deemed reasonable.

JEA did get some competitive bids to evaluate pricing, this bidding was done informally (not formally and posted publicly), due to close proximity of the need date and general industry issues with acquiring competent temporary labor, as such, this award is being processed as an emergency procurement pursuant to the JEA Purchasing Code section 3-113 Emergency Procurements - (b) an interruption in the delivery of an essential governmental service or the development of a circumstance causing a threatened curtailment, diminution, or termination of an essential service, provided that Emergency Procurements shall be made with as much competition as practicable under the circumstances. A written determination of the basis for the Emergency and for the selection of the particular vendor shall be included in the Procurement file. The Emergency form is attached as backup.

Request approval to award a contract to RPM Solutions, LLC for crushing services for JEA in the amount of $860,000.00, subject to the availability of lawfully appropriated funds.

Manager:	Wilds, Brian E. Sr Mgr Energy Production & Material Handling Operations
Director:	Limbaugh, Margaret Z. – Dir. Energy Production
VP:	Erixton, Ricky D. – VP Electric Systems

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

RPM SOLUTIONS

LIMESTONE CRUSHING PROJECT QUOTE FOR JEA

POWER PLANT: JEA NORTHSIDE

Assumptions for Projections

January 2023 Start Date

Estimated up to 100K tons of raw material to process

Services Description

Supplier shall perform all activities associated with the processing of material at the Northside Power Plant near Jacksonville, FL. Activities include providing all supervision, labor, tools, , materials, transportation, supplies and consumables to perform work that coincides with material processing. Services include all processing of materials and material displacement.

RPM Solutions to provide the following equipment
Deere 245GLC excavator (or equivalent)
Deere 824L wheel loader (or equivalent)
Deere 750L bulldozer (or equivalent)
McCloskey 4080 tracked conveyor equipped with a magnet separator and belt scales
Work truck will tools and fuel transfer tank
Dust control as necessary

JEA to provide the following
2 of Screen Machine 4043 impact crushers one of which is equipped with a recirculating system
All diesel fuel for the job
Lighting as necessary
Access to water for dust control

Unit Pricing.

PRICING	
Item Description	**Lump Sum Price**
Mobilization	$12,500
Price per ton cumulative	$8.35
Demobilization	$12,500

*Pricing based on minimum of 50,000 tons of limestone available for processing. Minimum contract price including mobilization and demobilization of $442,500.00

Our Process

Once the material is delivered onsite RPM will set up the crushing circuit. Initial testing and adjustments to the crushing chamber will be performed to maximize the efficiency of the circuit. Once complete we will begin operations. The crusher will be fed with an appropriately matched excavator. The processed material will be stockpiled with an RPM 80' stacker which is equipped with a magnet separator and scales. Material will be stockpiled using a wheel loader and/or a bulldozer.

RPM will staff the operations 24/7 once the material arrives onsite. We anticipate 10 hours of processing each 12 hour shift and 2 hours dedicated to maintenance. Each shift will process approximately 1,000 tons with a daily total of 2,000 tons.

About us

RPM Solutions is a reclamation company with a focus on the utility sector. Our operators are all trained at a minimum OSHA 10 hour, are first aid/CPR certified and receive a minimum of 40 hours of safety training per year. Our experience working in power plants has allowed us to develop policies and procedures specific to the risks associated with power plant operations. Our crews perform both pre and post job briefings as well as daily equipment inspections. A JHA is developed for each task and reviewed in the pre-job brief each day.

If you have questions, feel free to contact John Tankard at your convenience.

John Tankard: John@rpmsolve.com / (336) 707-7469

Thanks and regards,

RPM Team

Certification of Single Source or Emergency Procurement

Please use this form to certify a Single Source or Emergency Procurement complies with the requirements of the JEA Procurement Code. The JEA Procurement Code defines a Single Source and Emergency Procurement as follows:

3-112 Single Source

A Contract may be awarded for Supplies or Services as a Single Source when, pursuant to the Operational Procedures, the Chief Procurement Officer determines that:

(a) there is only one justifiable source for the required Supplies or Services;

(b) the Supplies or Services must be a certain type, brand, make or manufacturer due to the criticality of the item or compatibility within a JEA utility system, and such Supplies or Services may not be obtained from multiple sources such as distributors;

(c) the Services are a follow-up of Services that may only be done efficiently and effectively by the Vendor that rendered the initial Services to JEA, provided the Procurement of the initial Services was competitive;

(d) at the conclusion of a Pilot Project under Section 3-118 of this Code, the Procurement of Supplies or Services tested during the Pilot Project, provided the Vendor was competitively selected for the Pilot Project.

3-113 Emergency Procurements

In the event of an Emergency, the Chief Procurement Officer may make or authorize an Emergency Procurement, provided that Emergency Procurements shall be made with as much competition as practicable under the circumstances. A written Determination of the basis for the Emergency and for the selection of the particular Vendor shall be included in the Procurement file.

For purposes of this Section 3-113, an "Emergency" means any one of the following:

(a) a reasonably unforeseen breakdown in machinery;

(b) an interruption in the delivery of an essential governmental service or the development of a circumstance causing a threatened curtailment, diminution, or termination of an essential service;

(c) the development of a dangerous condition causing an immediate danger to the public health, safety, or welfare or other substantial loss to JEA;

(d) an immediate danger of loss of public or private property;

(e) the opportunity to secure significant financial gain, to avoid delays to any Governmental Entity or avoid significant financial loss through immediate or timely action; or (f) a valid public emergency certified by the Chief Executive Officer.

Please provide the following information:

1. Vendor Name:

RPM Solutions LLC_____

2. Description of Services or Supplies provide by Vendor:

Project overview: Process up to 100,000 tons of oversized (3") limestone down to ¾" using temporary crusher plant and material handling equipment. Oversized limestone to be moved from the JEA limestone storage building to the processing plant, processed, and then returned to the limestone storage building. Some amount of material may be stockpiled outside of the building on a day-to-day basis depending on logistics. Material to be moved utilizing loaders and other appropriate equipment.

Date range: The arrival schedule of vessels are fluid, especially this far in advance. As of right now the estimated delivery date for the first vessel of 50,000 tons of oversized material is scheduled to arrive January 28th, 2023. JEA requires processing to begin immediately. Coordinate equipment & staffing to begin two weeks prior to delivery date to allow for set-up, safety training, site familiarization, and any necessary training on the equipment. The second vessel of 50,000 tons of oversized material is currently projected to arrive February 28th but is highly likely to be pushed out farther into the year. JEA estimates that it will take no more than 4-months to process 100,000 tons (two (2)-months per vessel). Therefore, the project period is roughly January 9th, 2023, through May 26th, 2023.

Initially, JEA coordinated renting crushing equipment (which required permitting) & began working with Workspend in November to acquire manpower to support planned operation. Over several weeks JEA found that Workspend was not able to acquire manpower of the quality and quantity required to be ready to support required operations. In parallel to this, JEA requested contract operations personnel from the existing JEA GC to acquire rates to support crushing operations. JEA found that the GC contractors that were willing to provide manpower have the same issues in acquiring short term temporary labor as Workspend.

As it became apparent temp labor was going to be an issue, JEA contacted crushing service companies to support the need, three companies were contacted and walked through the operations. Of the three (3) companies, JEA found RPM to be the responsive & responsible company that could support both operating JEA's rented equipment and coordinate and bring equipment to Jacksonville to support the immediate need. JEA communicated to the lowest bidder they were found non-responsive and not to be considered in award. JEA is awarding from the O&M budget and based on the multiple quotes received pricing is deemed reasonable.

With the knowledge that Equipment and Manpower needed to be coordinate and onsite in less than a month, JEA informally began contacting and coordinating site visits and receiving quotes for crushing services, making this an Emergency Procurement, since it was not able to be Formally, Bid and Awarded through JEA standard procurement cycle.

3. <u>Certification:</u>

I the undersigned certify that to the best of my knowledge, no JEA employee has, either directly or indirectly, a financial interest in this Single Source Emergency Procurement, and

I the undersigned certify that this procurement meets the requirements of a (choose one of the following):

_____ **Single Source Procurement**. Please state which subsection of Section 3-112 above applies to this Single Source Procurement:_____

OR

X_**Emergency Procurement** - Please state which subsection of Section 3-113 above applies to this Emergency Procurement:_ (b) an interruption in the delivery of an essential governmental service or the development of a circumstance causing a threatened curtailment, diminution, or termination of an essential service;

Margaret Limbaugh _____ December 28, 2022

Signature of JEA Business Unit Manager **Date**

This certification shall be attached to the Purchase Order when it is routed for approval. A Single Source or Emergency Procurement shall be reported to the JEA Board in accordance with Section 1-110 of the JEA Procurement Code.

Approved by the JEA Awards Committee

Date: 01/05/2023 Item# 14

Formal Bid and Award System

Award #14 January 5, 2023

Type of Award Request: CONTRACT INCREASE/RATIFICATION
Requestor Name: Goodrich, William – Electric Systems Engineer
Requestor #: 695
Requestor Phone: (904) 665-6604
Project Title: Integrated Resource Planning for Electric Generation Planning
Project Number: Cost Centers 10220 and 10001
Project Location: JEA
Funds: O&M
Business Unit Estimate: CC10220 - $634,396.00, CC10001 - $67,108.00

Scope of Work:

JEA is seeking the services of an Electric Generation Integrated Resource Planning (IRP) Services provider. The IRP shall provide a near-term to long-term strategic recommendation, with alternatives that address the following concerns:

- System reliability, system balancing capability, and adequacy of resources (i.e., FAC Rule: 25-6.035)
- Retirement and replacement for aging generating plants
- Integration of planned and future utility-scale solar facilities, and system ramping requirements.
- Land requirements and site locations for all new system additions
- Increased customer-owned Distributed Energy Resources (DER), Demand-side management (DSM), and Energy Efficiency (EE) adoption
- Increased Electrification adoption
- Effects of other emerging supply-side resource technologies
- Industry objective of lowering carbon emissions
- Potential legislative and/or regulatory mandates on carbon emissions, environmental quality, and renewable goals

JEA IFB/RFP/State/City/GSA#: 1410223046
Purchasing Agent: Lovgren, Rodney D.
Is this a Ratification?: YES

JEA elected to commence additional IRP services going into the holidays to preserve project schedule. Funding was available to support the purchase order increase. A PO change order of $634,396.00

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Original Contract Amount	This Increase Request	New NTE Amount
BLACK & VEATCH MANAGEMENT CONSULTING	Paul Maxwell	MaxwellP@bv.com	$1,705,392.00	$701,356.80	$2,577,288.00

Amount of Original Award: $1,705,392.00
Date of Original Award: 08/19/2021
Contract Increase Amount: $701,356.80

List of Previous Change Order/Amendments:

CPA #	Amount	Date	Reason
199573	$170,539.20	11/28/2022	To initiate scope for Distributed Energy Resources an integrated portion & required input for the IRP

New Not-To-Exceed Amount: $2,577,288.00
Contract Term: Project Completion
Begin Date: 09/15/2021
End Date: Project Completion (Expected: 12/31/2023)
JSEB Requirement: Optional

Original Award
Acuity Design Group – Consulting Support 5% - $85,269.60
Contract Increase 1
Acuity Design Group – Consulting Support 5% - $128,864.40

Background/Recommendation:
Originally approved by Awards Committee on 08/19/2022 to Black & Veatch Management Consulting LLC in the amount of $1,705,392.00. The original award is attached as backup. On 11/28/2022, an administrative 10% increase of $170,539.20 was approved support the commencement of the DER portion of the contract.

This award request is asking for approval to award a contract increase of $701,356.80 for the increase scope of services from refining the IRP project (described in detail in the IRP and DER proposals from Black & Veatch), which includes:

- Initiation of the DER
- Workshops and Stakeholder meetings with the development of comprehensive public involvement plan
- External website develop development & social media maintenance support
- Scenario and forecast presentations
- Modelling and plan results presentations
- Transmission analysis
- Various Fuels market forecast and impacts

Rates are fixed for the project estimated to be completed in December of 2023.

Request approval to award a contract increase to Black & Veatch Management Consulting LLC for IRP and DER services in the amount of $701,356.80, for a new total not-to-exceed amount of $2,577,288.00, subject to the availability of lawfully approved funds.

Manager: Fischer, Melinda – Mgr Electric Generation Planning
Director: Coarsey, John B. – Director, Electric T&D Planning
VP: Melendez Melendez, Pedro A– VP Planning & Engineering Construction

APPROVALS:

Stephen Datz 1/05/2023

Chairman, Awards Committee **Date**

Stephanie M Healy 1/06/2023

Budget Representative **Date**

PROPOSAL TO PERFORM IRP SERVICES – CHANGE ORDER #1

Exhibit A to the Contract between JEA and Black & Veatch Management Consulting, LLC

JEA CONTRACT #JEA10637/ 199573

B&V PROJECT NO. 410163

PREPARED FOR

12 DECEMBER 2022

Table of Contents

1.0 Receive Executed Contract from JEA

Our work will begin upon receipt of the executed contract from JEA. The work will be performed by a consulting team led by Black & Veatch Management Consulting ("BVMC") and including Black & Veatch Power ("BV Power"), nFront Consulting ("nFront"), Nexant and the Acuity Design group ("Acuity"), together the "Black & Veatch Team", "Team", "we" or "us".

2.0 Perform Communication and Management

2.1 PERFORM PROJECT MANAGEMENT

BVMC will manage the performance of the Team's work from September 1, 2021 through September 22, 2023. BVMC will utilize an approach that follows Project Management Institute guidelines, with experienced project leadership working under a defined project plan using controls and tools to direct

and manage the different tasks and meet the budgetary goals, timelines and objectives of JEA. The key elements of this project management process include the following.

- Defined Organizational Structure – The identified IRP Project Manager (Paul Maxwell) will have overall responsibility for performance of the work including scope, staffing and schedule. The identified BVMC Project Manager (Ms. Felise Man) will have day-to-day responsibility for performance of the work, with specific areas and deliverables delegated to subject matter experts and other team members.

- Roles and Responsibilities – Key team members and their roles and responsibilities have been identified in advance in the project plan, and their commitment is confirmed and they are identified to JEA in this proposal.

- Status and Review Meetings - the frequency and scope of meetings have been identified in advance in the project plan and are structured around the reporting needs of JEA.

- Deliverables –The number and timing of deliverables have been identified in advance in the project plan and all necessary predecessors and client decision timeframes have been considered.

- Project Schedule and Timeline – A detailed project plan has been developed based on the individual tasks, meetings, deliverables and milestones identified.

As the work progresses, the IRP Project Manager and BVMC Project Manager will work to track performance against the established project plan and identify any special issues, problems or risks that are likely to be encountered going forward. If and when such issues arise, we will immediately work with JEA to mitigate any impacts and revise the scope and schedule as necessary and in agreement with JEA.

2.2 PREPARE FOR AND PARTICIPATE IN IRP KICKOFF CALL AND DATA REQUEST

The Team will facilitate an IRP Kickoff call. The Team will provide a draft agenda and work with JEA to finalize the agenda. To facilitate discussions during the call, the Team will also issue a preliminary IRP Data Request to JEA prior to the call.

The Kickoff Call will be focused on the following objectives and activities:

- Introduce the JEA team and Black & Veatch Team members and discuss roles in developing the IRP.

- Discuss preferred methods for IRP-related communications.

- Discuss anticipated IRP stakeholder engagement.

- Discuss JEA's policy objectives (i.e. increased utilization of solar, with and without battery energy storage).

- Discuss methodology and responsibility for developing relevant forecasts and projections utilized throughout the IRP (for example, JEA's load forecast, consideration of demand-side management/energy efficiency/ conservation, fuel price projections, natural gas transportation, etc.).

- Discuss factors to be considered in developing the sensitivities and scenarios to be evaluated in the IRP (final sensitivities and scenarios will be developed as part of the IRP process).
- Discuss JEA's power supply planning situation and relevant considerations.
- Review and refine (as need) the IRP tasks and approach.
- Discuss IRP schedule.
- Discuss data to be provided by JEA/high-level initial review of data and assumptions that JEA has available.

Following the Kickoff Call, the Team will issue a memorandum summarizing the Kickoff Call discussions. The Team will utilize the IRP Data Request in conjunction with an IRP Action Item List to monitor status of data requests and IRP-related activities through completion of the IRP.

2.3 PREPARE FOR AND HOST BI-WEEKLY CALLS (OBJECTIVE 4.8.1)

Following the Kickoff call, members of the Team will prepare for and host progress conference calls once every other week (bi-weekly). The purpose of these calls is to update JEA Leadership and the JEA Project Manager with respect to progress/status, discuss relevant outstanding issues, and review and discuss preliminary IRP results.

2.4 PREPARE FOR AND PARTICIPATE IN ON-SITE PROGRESS MEETINGS (RFP 1.2.6.2).

2.4.1 Prepare for and Participate in a Scenario Workshop

Members of the Team will prepare for and participate in a workshop at JEA offices to finalize many of the details of scenario development. We expect that representatives from the Environmental, Legislative, Finance, Treasury, Fuels, System Operations, Plant O&M and DSM groups will participate and perhaps senior management as well. Topics for discussion will include economic parameters, application of legislative and regulatory rules/goals/mandates, carbon costs, demand and energy forecast trends, DSM trends, etc. The purpose of the workshop is to provide the Team with an understanding of the bigger picture across JEA and for the representatives to gain insight and confidence in the IRP process.

2.4.2 Prepare for and Participate in 30% Review On-Site Meeting

Members of the Team will prepare for and participate in a conference call to review the draft 30% complete IRP. The agenda will include review of the developed supply-side options, the forecast reviews, development of the PLEXOS model including the data and key assumptions, and progress of the Solar Integration task.

2.4.3 Prepare for and Participate in 60% Review On-Site Meeting

Members of the Team will prepare for and participate in a conference call to review the draft 60% complete IRP. The agenda will include review of the initial modeling results, resource trends and further modeling recommendations and requirements, and preliminary results from the Solar Integration task. We will also discuss the draft Final report scope and requirements.

2.4.4 Prepare for and Participate in 90% Review On-Site Meeting

Members of the Team will prepare for and participate in a conference call to review the draft 90% complete IRP. The agenda will include review of the finalized modeling results.

2.4.5 Prepare for and Participate in Draft Final Report On-Site Meeting

Members of the Team will prepare for and participate in a conference call to review the draft Final IRP Report. The agenda will include review of the draft final report and other items as necessary.

2.4.6 Prepare for and Participate in Published Final Report On-Site Meeting

Members of the Team will prepare for and participate in a conference call to review the published final report. The agenda will include review of the final report and other items as necessary.

2.5 PREPARE FOR AND PARTICIPATE IN ON-SITE MEETINGS AFTER THE FINAL REPORT (RFP 1.2.6.2)

2.5.1 Prepare for and Participate in On-Site Review Meeting with JEA Leadership

After delivery of the final report, members of the Team will participate in a meeting with JEA leadership to present the report.

2.5.2 Prepare for and Participate in On-Site Review Meeting with the JEA Board

After delivery of the final report, members of the Team will participate in an internal meeting with the JEA Board to present the report.

2.5.3 Prepare for and Participate in On-Site Review Meeting with External Stakeholders

After delivery of the final report, members of the Team will participate in an external meeting with JEA and stakeholders to present the report to the stakeholders and other interested parties.

3.0 Perform Stakeholder Support

The Team, led by Acuity, will support JEA in facilitating workshops and stakeholders' meetings throughout the IRP process. They will engage with JEA in gathering and compiling stakeholders' input and concerns; educating and informing stakeholders to increase understanding of the IRP process, industry trends, challenges, and opportunities for JEA; and facilitate various stakeholder forums, to inform and discuss all pertinent aspects of the project recommendations as well as alternatives developed in this process.

Work will begin with development of a comprehensive public involvement plan and then identification and development of a stakeholder working group ("IRP Discussion Group"). Acuity will develop a preliminary list of group members for review and approval by JEA. In general, the group will be an inclusive, balance cross section of the community including low income and business interests. The Sustainability office and other agencies may be involved.

Acuity will support JEA with creation of meaningful calls including visualization services, translation services, the use of interactive charrette style activities and planned community dialogues. Each interaction will have a purpose and overall objective related to integrating the community. Acuity will also assist with tools and techniques that can be used to evaluate progress at regular intervals to make sure that we are meeting the overall stakeholder engagement needs of JEA.

Communication with the group will be through email as preferred by JEA versus a special purpose website.

Acuity will also seek to bring innovative tools to the process, including digital engagement such as crowd-sourcing campaigns, visual preference polling using renderings of proposed designs, text-based and interactive surveying, and collaborative community mapping and prioritization processes.

To support JEA stakeholder interactions, Acuity will also assist JEA with preparation of various presentations, graphics, data and output from the IRP process to inform the IRP Discussion Group. If and to the extent requested by JEA, Team members will also make presentations to the Group and interact directly with the group to enhance engagement, understanding and acceptance of the IRP process and key findings.

The progression of the Stakeholder support work will generally be as described in the following sections.

3.1 (NO LONGER USED)

3.2 (NO LONGER USED)

3.3 DETERMINE STAKEHOLDER GROUP MEMBERS

To support determination of stakeholder group members, Acuity will first research and recommend certain community and customer groups within the local Jacksonville area from which potential stakeholders may be identified. Acuity may also identify specific persons from the community that it recommends as stakeholders based on Acuity's knowledge of the persons interest in electricity, natural resources, Jacksonville residents and general interest and ability to be active in the stakeholder process. After discussion and decision making with JEA as to which groups and persons to invite, Acuity will work closely with JEA to reach out to the selected groups and persons and to secure their interest in participation.

3.4 DEVELOP IRP BRANDING AND MATERIALS

Acuity will support JEA with development of IRP branding and related materials such as flyers, invitations, stakeholder reports and presentations.

3.5 DEVELOP AND MAINTAIN IRP WEBSITE

Acuity will support JEA in the development of a special website or landing page for the IRP stakeholder process including appropriate descriptive text, links to stakeholder reports and presentations.

3.6 DEVELOP AND MAINTAIN IRP SOCIAL MEDIA

Acuity will support JEA in the development and maintenance of social media pages and postings concerning the IRP including development of appropriate terminology, consistency between postings in public and stakeholder forums, responding to inquiries and helping to expedite responses as necessary.

3.7 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #1 - INTRO TO JEA AND IRP

The Team, led by Acuity, will prepare for and participate in the first stakeholder meeting for which the topic will be introduction to JEA and the integrated resource planning process. The Team will first

provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.8 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #2 - PRESENT SCENARIOS

The Team, led by Acuity, will prepare for and participate in the second stakeholder meeting for which the topic will be presentation of the proposed IRP scenarios to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.9 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #3 - PRESENT FORECASTS

The Team, led by Acuity, will prepare for and participate in the third stakeholder meeting for which the topic will be presentation of the proposed load, fuel price, electric vehicles, customer sited solar and conservation and others to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the

meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.10 PREPARE AN INTERIM REPORT AND PARTICIPATE IN STAKEHOLDER MEETING #4 - PRESENT SUPPLY SIDE OPTIONS AND DSM POTENTIAL

The Team, led by Acuity, will prepare for and participate in the fourth stakeholder meeting for which the topic will be presentation of the proposed supply side options (new generating resources) and demand side management resources to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.11 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #5 - PRESENT PLEXOS AND INITIAL MODELING RESULTS

The Team, led by Acuity, will prepare for and participate in the fifth stakeholder meeting for which the topic will be presentation of the PLEXOS modeling tool and initial modeling results of the scenarios to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.12 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #6 - PRESENT REVISED MODELING AND STUDIES RESULTS

The Team, led by Acuity, will prepare for and participate in the sixth stakeholder meeting for which the topic will be presentation of revised modeling results and results from the special studies to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.13 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #7 - PRESENT PREFERRED PLAN

The Team, led by Acuity, will prepare for and participate in the seventh stakeholder meeting for which the topic will be presentation of the preferred IRP plan to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.14 PREPARE FOR AND PARTICIPATE IN STAKEHOLDER MEETING #8 - PRESENT 90% DRAFT IRP REPORT

The Team, led by Acuity, will prepare for and participate in the eighth stakeholder meeting for which the topic will be presentation of the 90% draft IRP report to the stakeholders. The Team will first provide a draft plan for the meeting including the agenda, proposed presentation topics and speakers and durations, descriptions of the topics, management of the meeting and stakeholders and the in-person and virtual participation details. The Team will then review the draft Plan with JEA during one of the bi-weekly calls and revise the plan as necessary. The team will also start drafting the presentation deck including necessary text, graphics and other visuals for each presentation topic that the Team will be presenting. The Team will then review the draft deck with JEA during one of the bi-weekly calls and

revise the deck as necessary. The Team will continue to revise the deck during the days leading up to the meeting to include the latest available information and additional comments from JEA. If the workshop will be held in-person the Team members participating in the workshop will then travel to the JEA offices to participate in the meeting with other Team members participating via conference call. After the meeting, the Team will draft a post-meeting report for review by JEA and will participate in a post-meeting debrief with JEA during one of the bi-weekly calls. The Team will also assist JEA with response to stakeholder questions, comments and requests following the meeting.

3.15 PREPARE STAKEHOLDER ENGAGEMENT REPORT

The Team, led by Acuity, will prepare a summary report concerning the stakeholder engagement process. The report will summarize each step of the process including determination of the stakeholders, development of IRP branding and materials, development and maintenance of the website and social media, and the results from each stakeholder meeting such as number of participants, types of questions raised by stakeholders, concerns addressed and stakeholder concerns remaining. A draft of the report will be provided for JEA review. JEA comments will be incorporated and the report will be finalized for inclusion as an exhibit to the IRP document.

4.0 Perform Integrated Resource Plan

4.1 PERFORM INITIAL WORK

The Team, led by nFront, will begin development of the IRP by first updating the overall scope and schedule to reflect the latest information and needs of JEA. The Team will then gather the necessary data and familiarize themselves with JEA resources and points of contacts. Using the data gathered, the Team will create a set of baseline assumptions that will be used throughout preparation of the IRP.

4.1.1 Refine IRP Scope (RFP 1.1.2)

The Team will revise or refine the base IRP scope and schedule as necessary to reflect results from the Kickoff Call. The overall IRP project plan will be updated and presented to JEA for review and comment, and when finalized will serve as the master plan until further update is required.

4.1.2 Acquire Data (RFP 1.1.2)

The Team will develop a preliminary IRP Data Request and issue it to JEA prior to the IRP Kickoff Call. The IRP Data Request will be refined throughout the IRP process and utilized to keep track of information requested by the Team and information that JEA provides in response to the Data Request. The IRP Data Request will also be utilized to develop an IRP Action Item List, which will be used to monitor status of IRP-related activities throughout completion of the IRP. The IRP Data Request and Action Item List will be discussed with JEA during the regularly scheduled calls.

4.1.3 Develop Scenarios and Sensitivities (Objective 4.1)

The Team will utilize information provided by JEA and developed in various other tasks of this IRP to develop the Base Case assumptions to be reflected in the IRP, including assumptions related to:

- JEA's load forecast (reflecting considerations of Demand-Side Management/Energy Efficiency/ Conservation, electric vehicle penetration, electrification, and customer-sited renewable generation).

- JEA's existing and future renewable and other generating resources (including owned generation as well as PPAs).
- JEA's fuel price projections, including natural gas transportation considerations.
- Estimated capital and operating costs for new supply-side options (including solar with storage and other generating alternatives)
- Environmental considerations, including potential future costs associated with emissions of carbon dioxide
- Clean and renewable energy standards.
- Retirement and modifications of existing generating units.
- Economic and financing parameters.

In addition to the Base Case analysis, the Team will develop and evaluate numerous sensitivities and scenarios to reflect changes to any of the considerations listed above, regardless of whether such considerations are driven primarily by economic, environmental, regulatory, internal policy, or other factors. The Team will facilitate discussion with JEA to identify potential sensitivities and scenarios that will be developed and evaluated. While such sensitivities and scenarios, and corresponding details to construct the sensitivities and scenarios, will need to be confirmed with JEA, the consideration reflected in the sensitivities and scenarios may include the following variations:

- Load forecast (Including changes to assumptions related to Demand-Side Management/ Energy Efficiency/ Conservation)
- Fuel prices, including natural gas transportation costs
- Economic and financing parameters
- JEA's percentage of annual generation from solar/renewables/clean power
- Capital and/or operating costs for new generating units
- Assumed unit retirement/modification dates
- 30% carbon neutral generation by 2030 as a sensitivity in all cases except where mandated

The scenarios will generally resemble the last IRP and may include the following:

1. Baseline or BAU - This would be an expected pathway without carbon costs. It may include no resource changes in the base plan, or it may include Northside Unit 3 ("NS3") retirement and replacement as the base plan.
2. DSM and Rooftop Solar - This would include destruction of demand and energy sales due to increased demand side management ("DSM"), rooftop solar PV implementation, or any other factors reducing load.

3. Increased Electrification - The primary driver in this scenario would be increased Plug-In-Electric Vehicle (PEV) and plug-in-hybrid electric vehicle (PHEV) penetration.

4. Green Economy - Green economy would be an economy wide response to GHG legislation and other drivers. It may include the following; JEA 30% zero emitting energy by 2030, forced solid fuel retirement, any form of RPS, carbon costs and/or legislated GHG reductions.

5. Economic Downturn – Generally, the same regulatory climate as Green Economy except cost drives a downturn rather than a growth economy.

6. Future Net Zero – Carbon emissions from the JEA generation portfolio fall to zero by the end of the study period (described in more detail below).

All this might be lumped into one scenario, or it may be more prudent to separate into multiple scenarios. It may be prudent to have a separate Green Economy type scenario that allows nuclear solutions and one that does not. For purposes of this proposal, we assume that the 6 scenarios listed above will be performed.

Based on prior experience, it is likely that in CO2 cost scenarios (RPS or 30% renewable commitment by 2030) a significant quantity of solar PV will be added up front. Non CO2 scenarios may likely have to show a certain amount of solar PV addition as well. It may be necessary to force a minimum amount of solar PV into selected non-CO2 scenario resource plans.

Given the current broad interest in the industry around carbon reduction and achieving “net zero”, a scenario will be performed to forecast the type, capacity and timing of the new non-carbon emitting resources that JEA would need to add and the existing carbon emitting resources that it would need to retire in order for CO2 emissions from the overall generating portfolio to decrease towards zero by the end of the study period (the “Future Net Zero” scenario). This scenario will consider a renewable % and/or carbon reduction glidepath as well as high carbon costs and high gas prices.

It may be necessary to identify the incremental cost of a 50MW 4 hr battery peaker in each scenario. Unlike a Static Reserve Solution (discussed elsewhere in this proposal), this battery would be forced into the resource mix and used routinely for dispatch. This might be most easily achieved by taking the constraints from best resource plans for each scenario, dropping off (1) 7B CT and re-running the PLEXOS model. The expected static reserve operating profile for the lead static peaker would be considered along with the results from this modeling to develop/validate battery O&M costs.

4.2 PERFORM ENVIRONMENTAL ASSESSMENT

The Team, led by BV Power, will assess numerous environmental issues that may impact the supply side options that will be considered for the IRP. This assessment includes an overview of the broad range of environmental issues and regulations, as well as specific assessments related to the Northside options, development of the new sites, and development of the gas delivery options discussed elsewhere in this proposal.

4.2.1 Assess Carbon, Air, Water and other Environmental Issues

Carbon
We will provide an overview of Greenhouse Gas (GHG) legislation that can potentially result in costs as well as financial benefits to JEA. We will also consider the Clean Futures Act which may be included in the pending Infrastructure Act, in particular the ability of JEA to buy credits. We will evaluate IRS 45Q Credits for Carbon sequestration for public entities like JEA. We will also consider the regulatory path forward related to potentially netting out for CO2. or purchase carbon credits.

Air
With respect to current air quality issues, we will evaluate Ambient Air standards (NAAQS) for particulate matter (PM) and ozone specifically. We will also evaluate hazardous air emissions (NESHAP) rules for mercury (Hg), formaldehyde and potentially others. We will also review current and potential NSR/PSD permitting rules particularly as it relates to the Northside life extension options.

Water
We will assess cooling water intake rules (316(b)) and how they may impact resource options for JEA. We will also evaluate the hydraulic connectivity ruling that could impact the NPDES permitting at the Northside Generating Station. Water reuse will also be evaluated since any new cooling water has to come from reuse if available. This will help compliance with the recent state legislation eliminating wastewater surface discharge by 2032. Injection wells for cooling tower blowdown versus wastewater treatment will be evaluated due to salinity or sodium concerns especially on the South grid reuse.

Environmental Science and Ecology
We will provide an overview of the ongoing evolution of Florida wetlands regulations and the potential impact to permitting (404) of activities that may impact regulated wetlands. We will also evaluate new storm water requirements. We will provide an overview of the increased consideration of environmental justice in environmental decision making. The potential regulation could result in future costs to mitigate impacts and/or grant opportunities to support disadvantaged communities. For example, environmental justice concerns could require gas line routing to avoid disproportionate impacts. We will also provide a high level overview of climate resiliency considerations with respect to future generation projects, leveraging publicly available information related to climate change impacts in Florida. We will also provide an overview of environmental considerations/regulatory programs impacting the siting, cost and timing of new solar facilities. Key considerations will include wetlands permitting, T&E and environmental justice. We will also perform a high level geologic review of the potential for carbon sequestration in consideration of IRS regulation 45Q concerning tax credits for sequestration.

Solid Waste and Hazardous Materials
We will evaluate coal combustion residuals (CCR) issues which are relevant for supply side options that involve solid fuel particularly since a potential new landfill would likely be required for compliance. We will also provide an overview of polyfluoroalkyl substances (PFAS) regulation and potential impact particularly with respect to concentrated levels of PFAS in cooling tower discharge and therefore mitigation costs to JEA.

4.2.2 Assess Environmental Issues for Northside, New Sites and Gas Delivery Options

Under this task we will assess the environmental issues specific to the Northside options (new generation, retirement, life extension), the options for the existing and potential new sites identified

under the other tasks (North Jax, GEC, solar/battery and distributed resources), and the gas delivery options identified under the gas delivery options task. The following issues will be assessed.

Socioeconomics
- Proximity to Roadways
- Proximity to Sensitive Receptors
- Displacement of Residences

Land Use
- Site Ownership
- Land Use Compatibility
- Environmental Justice
- Site Area Risks

Air Quality – Proximity
- Proximity to Single PSD Class I Area
- Proximity to Multiple PSD Class I Areas
- Proximity to Non-Attainment/ Maintenance Areas
- Proximity to Other Sources

Permitting Considerations
- Air Quality Permit ability
- Environmental Permit ability

Ecology
- Habitat Quality and Threatened/ Endangered Species Potential
- Wetlands/Water of the US

Cultural Resources
- Archaeological or Historic Resources

Technical Considerations Site Development Factors
- Site Development
- Site Expansion
- Wastewater Disposal Options
- Water Availability
- Proximity to Viable Sources of Water

4.3 DEVELOP SUPPLY SIDE RESOURCE OPTIONS AND ALTERNATIVES

Under this task, the Team, led by BV Power, will develop supply-side resource options (the "SSOs") for modeling in the IRP. The work will consist of three components; 1) an update of the generic technology, cost and performance estimates that Black & Veatch performed in support of the 2019 IRP (the "Generic SSO Update"), 2) development of some additional SSOs not included in the previous IRP, update of siting considerations for generic SSOs at North Jax and GEC, and R&R estimates to support various life extension cases for existing units , and 3) estimates for longer-term alternatives to the 20 year Vogtle PPA which is scheduled to begin in late 2021 (the "Vogtle PPA SSOs").

4.3.1 Update Generic Supply Side Options from the 2019 IRP (Objective 4.4)

The Generic SSO Update will be performed by the Team and will include an update of the overview of commercially available SSOs, including frame combustion turbine generators ("CTGs"), aeroderivative CTGs, spark ignition reciprocating internal combustion engines ("RICEs"), and solar photovoltaic ("PV") systems with and without battery storage systems. An update to the order-of-magnitude estimates of

capital costs, operating and maintenance ("O&M") costs, thermal performance and stack emissions (for gas-fired resources) and the solar PV and energy storage resources will also be provided. The update will also consider the future cost trends for solar with and without energy storage. The update will be based on the same siting assumptions used previously, updated as discussed elsewhere in this proposal. These SSOs will be used for assessing the gas-fired alternatives at the "North Jax" site, which includes Northside Generating Station (NGS) and a portion of the former St Johns River Power Park ("SJRPP") site, and the Greenland Energy Center ("GEC") site discussed elsewhere in this proposal.

Resource options will include traditional and renewable supply-side options. In past JEA IRPs the GE product line has been used as surrogate SSOs for other vendor products including Mitsubishi Power Americas (MPA), formerly Mitsubishi-Hitachi Power Systems (MHPS), and by Siemens. Also, following development of resource options, an LCOE screening has been performed to eliminate options that are not cost effective. This has been done to minimize the options entering the optimization process, and therefore reduce run time. This IRP will continue to employ the same methodologies, with one exception, that select MPA and Siemens options will be examined to a level comparable to similar GE options. A representative option (GE or other) can then be selected for use in production modeling. Anticipating part of the output of this IRP based on the 2019 IRP results, JEA wants to be better prepared for IRP follow-up activities, including selecting a specific vendor technology and refreshing IRP runs in support of the Market Test and Need For Power (NFP) process discussed elsewhere in this proposal.

In general, the generic SSOs will be the same as the last IRP plus some additions. The range of options includes, but is not limited to, the following:

- Wartsila 50DF reciprocating engine. We will consider the governor performance of model 50SVG and other models which require 1% distillate to run gas.
- LM6000 pairs, dual-fuel, 2x0.
- LMS 100, dual-fuel, 1x0.
- 7FA.05, dual fuel, 1x0, 1x1, 2x1.
- 7HA.02, dual-fuel, 1x0, 1x1, 2x1, 3x1. We will discuss with JEA system operations about unit size and trip schemes which is particularly important in the evaluation of NS 1-3 retirement.
- GEC 7FA.03 upgrade to 7FA.05 Hybrid, dual-fuel, 1x1, 2x1.
- A 50-80 MW biomass unit, greenfield or brownfield, at NGS.
- Small modular reactor ("SMR") nuclear in 100MW block increments, with JEA having an ownership interest in a consortium (not self-build/operate), over a 15-20 year time horizon.
- Gen III nuclear in 100MW block increments, with JEA having an ownership interest in a consortium (not self-build/operate), over a 15-20 year time horizon.
- Solar PV under JEA ownership as well as under a PPA.

- Battery Peaker, 50MW-4 hr for use as a peaker not for integrated solar smoothing, sited at GEC or NGS, including O&M and lifecycle cost for expected usage, including battery R&R / augmentation.
- 5x50 Solar Smoothing Battery sized as needed (possibly 25MW-2HR) integrated with committed 50MW site, including O&M and lifecycle cost for expected usage, including battery R&R / augmentation.
- 74.9 MW solar Smoothing Battery sized as needed (possibly 35MW-2HR) to integrate with proposed solar sites including O&M and lifecycle cost for expected usage, including battery R&R / augmentation.
- Other novel renewables that will be mature, viable and applicable such as offshore wind or wave energy that are expected to be cheaper than nuclear or biomass and pass the LCOE screening.

Air cooled condensers will be considered for the combined cycle options, with special consideration given to operating noise impacts. Performance estimates will be updated to include parameters such as ramp rates, start times and reduced-load overnight operating modes.

4.3.2 Develop North Jax and GEC Replacement SSO Assumptions (Objectives 3.1 and 3.2, RFP 1.1.2)

The North Jax/GEC SSOs will also be developed by the Team. The Team will utilize results from the Generic SSO Update to develop SSOs sited at North Jax and GEC. These SSOs will be made available as appropriate for cases assuming retirement of various combinations of the existing Northside generating units (Units 1,2,3 and CTs). BV Power will consider the requirement for black- start capability for replacement of the Northside CTs.

The Team will evaluate life extension and retirement considerations for Northside Unit 3 and the four Northside combustion turbines. This evaluation will be initiated through an initial review and characterization of the equipment conditions and history (to be provided by JEA), including operational and maintenance data and future expected operating and maintenance regime. The review will include known issues from the history of the facility and issues that the Team would expect to be drivers of availability and reliability in the future. The evaluation will include review of the following information for Northside Unit 3 and the four Northside combustion turbines:

- Equipment description and ratings
- Operating data (Operating hours, fuel usage and consumption, heat rate, forced and scheduled outages)
- Maintenance history (Inspection reports, previous overhauls, equipment replacement)
- Historical maintenance costs
- Maintenance and capital budgets
- Fuel quality

- Emissions reports
- Environmental permits
- Environmental compliance planning studies and filings
- Staffing

Results of the evaluation will include a narrative description of findings and estimated remaining component life, along with a list of recommended inspections, repairs and/or replacement actions which should be performed for continued safe and reliable operation of the critical equipment. Estimated capital costs and operational impacts, and anticipated schedule for performing the actions will be provided. Costs will be broken down into material, installation, and miscellaneous costs including engineering and contingency. Testing that can be performed to enhance the assessment will also be identified. Estimated capital and maintenance costs associated with continued operations of the units will be compared to retirement of the units as part of the PLEXOS sensitivities discussed previously in this proposal.

Northside Unit 3

The potential retirement and replacement of Northside Generating Station Unit 3 (NS3) will be evaluated. Retirement will be assumed to take place in Spring of 2028. It will be assumed that no other units are retiring. This is driven by the potential avoidance of 316(b) compliance costs, capital renewal and replacement ("R&R") and expected GHG legislation.

In the PLEXOS modeling of this option, retirement will be evaluated against a range of Supply Side Options (SSO), as well as Demand Side Management Options (DSM) unique to each scenario. Upgrade of NS3 for a finite duration (probably 15-20 years) will also be evaluated for reference. Northside 1&2 will be retained except in scenarios that require their retirement. Siting replacement capacity at North Jax will be optional but not required for the first increment of capacity retired at Northside. Subsequent retirements will require capacity addition at North Jax (transmission reasons). We will leverage available data as much as possible and focus on capital needs over the next 15 years. If New Source Review is required, upgrade will likely not be feasible.

Northside CTs

The Northside CTs (NCT3, NCT4, NCT5 and NCT6) are in a unique situation. They are near 50 year-old oil-fired 50MW 7B CTs. These units are effectively a static solution to mandated spinning reserve for reserve pool calls. Looking at historical data since SJRPP retirement, ranking them by the number of units called (vs by starts/unit), on average in one year the first unit is called 125 times, the 2nd is called 70 times, the 3rd 25 times and the 4th 12 times. Though they are counted as system capacity, they typically only run to supply system capacity during extreme winter peak or unit forced outage. Average run time is 2 hours for units ranked 1-3 and 3 hours for the 4th unit. Maximum runtime for all ranks is 10 hours. The long runs are winter scenarios (which were mild across this data), and the rest of the runs are predominantly reserve pool calls. These units will be evaluated for life extension, upgrade and for a limited range of similar (peaking) in-kind potential replacements. Information for assessing life extension on the Northside CTs will be sourced from the JEA O&M group, with a focus on 15 -20 years of life extension.

In the PLEXOS modeling of this option, life extension would be the base case assumption, with Capital R&R expectations for these units added to the scenario cashflow. At this time, it appears there may be two potential approaches to demonstrate: a Spinning Reserve Solution and a Static Reserve Solution:

- Spinning Reserve Solution – The Team will evaluate the potential to do without the Northside peakers by having adequate, modern, efficient capacity on the system and on-line, and by reserving the desired amount of spinning reserve capacity to cover reserve pool calls. Presumably this would result in taking the initial constraints from the favorable plans produced for the primary drivers above (in each scenario), deleting these 7B assets (i.e. adding a 200MW need), re-optimizing, setting the reserve pool constraints, and re-running. The resulting cost delta (from the case with these units) in each scenario would determine the effective cost of the spinning reserve solution vs the cost to continue to use the units as static reserve. We will also consider the following resource options:
    - Low-cost dual-fuel conversion of existing 7B units with necessary capital R&R
    - 7B to 7E dual-fuel upgrade of existing units (discuss viability with O&M)
    - LM 6000 pairs
    - A 50MW 4 hr battery peaker
- Static Reserve Solution – The Team will evaluate addition of a battery peaker in place of one unit and capital R&R upgrades on the rest of the units. This battery peaker would not be dispatched routinely for system load so adding it in place of a 7B CT would not affect dispatch so this solution would not have to be production modeled. The cost of this option will likely merely be the added capital cost of (1) battery system less the R&R on one CT. This battery peaker will be modeled for a winter peak day and an extreme winter peak day with (3) CTs still available (the Extreme Winter Assessment scenario discussed elsewhere in this proposal). Results may show that all CTs should be kept (a potential 50MW capacity gain). The expected static reserve operating profile from the lead peaker will be used for developing/validating the lifecycle O&M costs for the battery.

Northside Units 1 and 2 Retirement Options

The potential retirement and replacement of Northside Generating Station Units 1 & 2 (NS1, NS2) will be evaluated. Retirement will be assumed to take place in Spring 2028 with no other units retiring. This would be driven by carbon and by avoidance of 316(b) costs and capital R&R.

In the PLEXOS modeling, this option will be evaluated against SSOs and DSM options. Some scenarios may require solid fuel retirement. Retirement of NS3 may be included in the 15-20 year horizon as well. Replacement capacity at North Jax will be required at the time of retirement of NS 1&2 (transmission reasons).

Northside Units 1, 2 & 3 Retirement Options

The potential retirement and replacement of Northside Generating Station Units NS1, NS2 and NS3 will be evaluated. Retirement of these three units will be assumed to take place in Spring 2028 with no other units retiring. This would be driven by carbon and by avoidance of 316(b) costs and capital R&R.

In the PLEXOS modeling, this option will be evaluated against SSOs and DSM options. Replacement capacity of at least two generating units at North Jax will be required for transmission reasons. Additional generation, if required, can be sited at GEC. This option may already be required for scenarios mandating solid fuel retirement.

Evaluate NS 1 & 2 Gas Conversion Options

The potential gas conversion of the Northside CFB units will be evaluated at a high level. Conversion will be assumed to occur in 2023 with retirement around 2030 or 2035 (TBD). Information concerning the conversion will be based on a conceptual proposal received by JEA from FW/Sumitomo. The proposal is currently only a conceptual proposal. We will evaluate the conceptual proposal to determine if the proposal is complete, viable and feasible. If proposal is not complete, viable and feasible, we will recommend modification of the proposed cost and performance prior to evaluation or will recommend rejection of the proposal and deletion of the remainder of this scope.

In the PLEXOS modeling, this option may be modeled with NS3 retirement in a CO2 scenario. If not selected economically it may need to be forced to determine the incremental cost associated with this option. It may also need to be forced into the same NS3 retirement case in a non-CO2 BAU scenario as well.

4.3.3 Develop Vogtle PPA Replacement Assumptions (RFP 1.1.2)

The Team will develop Vogtle PPA SSOs by utilizing the results from the Generic SSO Update and the Team's own in-house financial modeling tools and subject matter expertise. We will forecast the cost that JEA would incur for energy and capacity from technologies potentially available in the 2040 time period that could replace the 200 MW of firm energy from Vogtle assuming ownership of the resource by a third party with capacity sold to JEA under a PPA. The forecast would be used for modeling of these resources in the IRP. For third party ownership, the forecasts will consider typical independent third-party developer/seller financial structuring, current interest rates, ITC availability, rates of return and other factors, all as applicable.

4.3.4 Compare Solar PV Ownership vs PPA (Objective 4.5)

The Team, led by BVMC, will forecast and compare the costs that JEA would incur for energy and capacity from generic PV solar, PV solar plus energy storage and standalone energy storage resources under two alternative ownership structures; 1) ownership of the resource by JEA and 2) ownership of the resource by a third party with energy or capacity sold to JEA under a PPA ("Renewable PPAs"). The forecasts would also be used for modeling of these resource in the IRP. BVMC will utilize the results from the Generic SSO Update and its own in-house financial modeling tools and subject matter expertise to forecast the costs under each ownership scenario. For third party ownership, the forecasts will consider typical independent third-party developer/seller financial structuring, current interest rates, ITC availability, rates of return and other factors. We also assess the potential benefits of ownership, including dispatch rights and internal control of all control system settings and operation.

4.3.5 Develop Generic Import Assumptions (RFP 1.1.2 Scope of Work)

The Team, led by BV Power, will perform transmission load flow simulations to assess the current and future constraints and congestion that could occur for importing power into the JEA system. BV Power will utilize the results from 1) the Generic SSO Update, 2) the North Jax/GEC SSOs, and 3) the Vogtle PPA SSOs along with the most recent power flow dataset for the JEA and surrounding systems to develop a model of the future JEA system in the software tool Power System Simulator for Engineering ("PSSE").

BV Power will then simulate power flows for specific forecast years within the Study Period and identify potential transmission constraints and curtailments that could occur and limit the amount of power from the Vogtle PPA Options and the Generic Solar and Storage PPAs. BV Power will also identify potential transmission reinforcements (new lines, reconductoring and transformer upgrades) that could be built to alleviate such constraints and the overall timeframe and cost to complete such reinforcements. The results of this analysis will also be leveraged to support evaluation of potential offers for conventional and renewable energy during the Market Test and Need for Power components of the Florida Power Plant Siting Act (PPSA) if and when PPSA services are added to the scope of this proposal.

4.3.6 Evaluate Site Development for New Generic Resources (Objective 4.6)

4.3.6.1 Perform Solar Siting

BV Power will work with JEA Real-Estate to identify potential sites for new solar PV resources.

The Team will also identify potential sites for additional solar PV development. Sites will be identified to support at least the next 10 years of solar PV development. A generic solar site development cost will be produced for both as-yet unsited near-term solar PV projects and unsited long-term solar PV projects.

Remote Site Study

It is expected that PLEXOS modeling results for one or more of the IRP scenarios will show that large amounts (perhaps 4,000 MW) of new solar resource capacity must be added to the generation portfolio particularly for scenarios that require large amounts of carbon reduction or that purposely limit the amount of new gas-fired generation that can be added. Given that approximately six (6) to eight (8) acres of land is necessary to provide one (1) megawatt of solar capacity, it is expected that land available in the Jacksonville area will be insufficient to host this capacity and therefore sites must be identified outside of the area. To identify remote sites BV Power will perform a solar site study and identification task ("Remote Solar Site Study"). The methodology will include a global information system (GIS) based search of currently undeveloped land in northern Florida to identify land that is favorable for solar development based on 22 different factors. The factors will include land cover, flood potential, wetlands, proximity to high voltage transmission, etc. A score will be applied to factor based on how the land compares to a set of objective criteria and the factor scores summarized into an overall score. The potential sites will then be ranked from highest to lowest score and the top sites sufficient in total to potentially host 4,000 MW of new solar resources will be identified. These sites will then be identified on a Florida overview map and a Duval County map sufficient to identify the scope of the new land needed.

Transmission Assessment of Remote Solar Sites

Information about each site will be provided to Team members that will perform a transmission assessment. In this analysis, transmission system improvement and voltage support required for importing power from outside of JEA territory will be evaluated. The studies will be performed using PSS/E and TARA software. The assumptions such as location of PV sources, transfer limits and generation and load levels will be finalized in consultation with JEA's Transmission Planning Group. It is assumed that total of four (4) scenarios (base cases) will be studied. FRCC's standard set of P1 to P7 contingencies will be studied.

4.3.6.2 Perform SJRPP and GEC Thermal Siting

The Team, led by BV Power, will conduct desktop site evaluations of the two proposed sites identified by JEA as North Jax and GEC to identify potential condition or economic constraints that may hinder or preclude site development. The evaluation will include environmental and technical variables and considerations.

The results of the desktop evaluation will be used to rank and determine the most compatible candidate site using professional judgment and/ or measured considerations. In addition, general site models and drawings will be prepared for both sites to include consideration of prevailing winds, existing site conditions, and Original Equipment Manufacturer ("OEM") variations for system additions. The Team will also identify up to three alternative sites based on existing land use and proximity to JEA facilities. These alternative sites will be evaluated for potential condition or economic constraints that may hinder or preclude site development for comparison to North Jax and GEC. In addition, BV Power will also prepare a general approach for site selection strategies for subsequent site selection efforts by JEA.

North Jax
The North Jax site is intended to include some land adjacent to and North of NGS that has been identified by JEA Real Estate as a carve-out for new generation. The North Jax site does not (at this time) include the main SJRPP site inside the rail loop. It will include the existing SJRPP substation. While it is distinct from the current NGS site, the two sites will be considered together in terms of shared resources or available land.

The focus of the site evaluation will be to add a facility for proposed and future addition of gas-fired combined-cycle generation. The basis for the new generation will the combined cycle SSOs identified under that task described elsewhere in this proposal. The available land will be analyzed in adequate detail to develop a proposed conceptual site layout and site development cost estimate. The philosophy for development of this site will be to develop the site for the first units(s) to be sited there, but equip the physical boundaries, fire water, storm water, cooling tower locations, and number of switchyard bays for a planned future buildout. Tower drift analysis and storm water design will be included at a conceptual level. Detailed design will not be included at this phase.

The site development cost will be broken out of the cost of the first or subsequent units sited there. A minimalist approach is desired regarding cost relative to O&M facilities. Cost estimates for development of this site should be adequate to carry forward into the Need-For-Power process. Estimating for new gas delivery is discussed separately below.

GEC
The GEC site is existing and significantly equipped for the next increment of generation. Proposed resource additions at this site will consider the state of current development and revisit the proposed conceptual site buildout. As the site is already developed, any estimates for units sited at this location will include site-related costs for each installation.

Transmission Analysis
The Team will assess the impact to the future planned JEA transmission system of retirement of the existing gas-fired resources at Northside and replacement with additional gas-fired resources at the North Jax and GEC sites. A transient stability study will be performed to verify NERC reliability criteria with Northside generators retired. This study will also evaluate whether any dynamic voltage compensators such as synchronous condensers, SVC or STATCOM would be required to maintain voltage and angular stability. The contingencies that will be studied will be agreed with JEA's Transmission

Planning Group. A short circuit analysis will be performed to quantify the reduction in fault current due to retirement of Northside generators. This analysis will inform whether a review of existing protection settings would be required or not. The studies will be performed using JEA's short circuit analysis models either in PSS/E or Aspen format. A report will be provided documenting the assumptions, study methodology, study results and recommendations. The report will also include a budgetary level cost estimate for the recommended upgrades. We assume JEA will provide all models and contingency files for the studies. It is also assumed that JEA staff will be available during the study for any questions regarding assumptions and equipment ratings. Protection settings review is not included as part of the scope.

Cooling Towers
It will be assumed that any combined cycle constructed at the GEC or North Jax site will employ wet mechanical draft cooling towers (WMDCT), and that those cooling towers will use tertiary treated municipal effluent as makeup. The chemistry, technology and facilities related to that water supply and blowdown removal will be conceptually developed in conjunction with the JEA Water and Wastewater Planning group and JEA Environmental Group. A Dry Cooling Tower (DCT) option will also be developed for comparative analysis. The ambient salt air conditions associated with North Jax will be considered, particularly for lifecycle impacts to the DCT. Work will include performing or refreshing cooling tower drift analysis for both sites at a level adequate to conceptually site proposed cooling towers.

Solar PV and Battery Sites
The Team will also consider a prospective battery site as an adder to the prospective solar sites and/or the North Jax and GEC sites. This will support development of the battery resource option for smoothing a block of 5x50 solar PV and will include the cost to integrate into the 5x50 design. The real estate acquisition cost for these battery sites will be assumed to be part of the solar PV facility cost.

Distributed Energy Resource Sites
The Team will also identify potential site for new Distributed Energy Resources (DERs). The basis for the new generation at these sites will include reciprocating internal combustion engines (RICE) or small combustion turbines, alone or in a combined heat and power ("CHP") configuration, or batteries. These sites will be specific to certain industrial facilities assuming that CHP is the primary driver for DER. The Team will consider governor performance of RICE and the need for diesel fuel for dual fuel operations.

4.3.7 Develop Natural Gas Fuel Delivery Cost Estimates (RFP 1.1.2)

The Team will assess solutions to current and expected gas delivery issues due to the addition of new generation at the North Jax and GEC sites. In general, physical upgrades of existing gas delivery systems (likely compression) or installation of new gas delivery systems will be required where there is incremental gas fired generation. The Team will develop order-of-magnitude estimates of capital and operating and maintenance (O&M) costs that will be preliminary, screening-level costs suitable for the initial evaluation of the respective natural gas-based solutions. The screening-level cost estimates will be developed based on recent studies and recent project installations executed by the Team. The assessments will be done in coordination with JEA Resource Planning and Fuels groups, and with assistance as needed from Peoples Gas, Florida Gas Transmission, Southern Natural Gas and/or a gas flow modeling consultant retained by JEA for assessment of gas system expansion and operational flow modeling.

4.3.7.1 Evaluate North Jax Site Gas Delivery

There is an existing low pressure gas line supplying Northside Station. The Team will assess if there is any further capacity available on this line, and the extent to which use of the existing capacity is constrained by coincident flow restrictions between NGS and Kennedy Generating Station (KGS). The Team will assess the feasibility of upgrading the low pressure line and the feasibility of adding compression at the end of the low pressure line to reach required operating pressures and flows. The Team will assess solutions to NGS gas supply issues including a new gas delivery line from somewhere proximate to Brandy Branch Generating Station (BBGS) to NGS/North Jax. Team will also interface with JEA and Peoples Gas as required to evaluate options for supplying gas to North Jax.

In the PLEXOS modeling, the Team will account for these coincident flow restrictions in cases retaining NS3 and without a gas upgrade to NGS/North Jax.

4.3.7.2 Evaluate GEC Site Gas Delivery

The existing GEC site is fed by a dedicated lateral off of the Seacoast intrastate pipeline, a subsidiary of Peoples Gas (PGS). There are two different interstate gas transportation lines that can supply gas into the Seacoast line. It is not currently possible to split the total gas flow to GEC between the two interstate supply lines. There are potential physical control issues with parallel supply, as well as operational/regulatory issues that would require JEA to exactly match their forecasted hourly gas burn from both lines. It is expected that modifications will be required to support the increased gas flow and pressure needs if incremental advanced-class CT/CC units are sited at GEC. The Team will assess if modifications to the current system could eliminate current problems, or if combined cycle conversion of the existing units at GEC is achievable without any upgrades to the gas system. The team will assess if potential upgrades are required for any additional units sited at GEC. If upgrades are required, the Team will assess physical upgrades (likely compression and/or controls) that solve the current upstream delivery constraints as well. The Team will request that Peoples Gas perform gas system modeling of the existing PGS supply and JEA lateral. Solutions will depend highly upon additional capacity requirements at GEC.

4.3.7.3 Evaluate Firm Natural Gas Transportation Application

There have been some changes to JEA's firm gas transportation that the Team will review with JEA's Fuels group. Constraints around GEC will be discussed. The Team will assess application for and acquisition of incremental firm transportation upstream of the sites similar to what was assessed for the prior IRP effort.

4.3.7.4 Evaluate CCCT Backup Fuel Options

The Team will analyze the pros, cons and costs of procuring/leasing upstream gas storage as a primary backup for combined cycle gas units instead of bulk ultra-low sulfur diesel ("ULSD") storage. The duration and other terms of the upstream gas storage will be driven by evaluation of the Extreme Winter Analysis discussed elsewhere in this proposal. The Team will make a recommendation as to the viability and economics of upstream gas storage versus on-site ULSD storage.

4.3.8 Compare Economic Life Cycle Costs for all Alternatives (RFP 1.1.2)

In order to compare the economics of the SSOs, a levelized cost of energy ("LCOE") screening analysis will be performed by the Team. The purpose of the LCOE analysis will be to screen out SSOs that are clearly more costly than others and thereby reduce the number of SSOs to be considered in the IRP production cost modeling. The Team will utilize results from the Generic SSO Update, each

Northside/Brandy SSO, each Vogtle PPA SSO and each Renewable PPA to forecast the annual cost of each resource in dollars which will then be discounted to a present value. Similarly, the forecast annual generation of each SSO will be forecast in MWh and discounted to a present value. The ratio of the present value cost divided by the present value of generation results in a levelized cost in $ per MWh for each SSO based on appropriate capacity factors for each SSO in determining the annual generation. The Team will discuss the LCOE results with JEA and determine which SSOs to screen out and not consider in the subsequent IRP production cost modeling.

4.4 DETERMINE DEMAND SIDE MANAGEMENT POTENTIAL (OBJECTIVE 3.4)

Contractor will work with JEA Customer Solutions group to develop demand-side management (DSM) forecasts for all scenarios and sensitivities as appropriate.

The Team, led by Nexant, will provide reliable and comprehensive analysis of DSM as a reliable, cost-effective resource for meeting the peak demand and energy requirements of JEA customers. The Team will leverage the data, analysis and supporting models, and expertise developed from performing JEA's Demand Side Management Market Potential Study ("MPS") as part of the FEECA goal setting proceedings in 2019. The Team will also leverage its significant familiarity with JEA's DSM activities, accomplishments, customer base, and associated DSM opportunities.

DSM presents an opportunity to reduce total consumption or peak demands and thereby reduce system costs. To determine achievable DSM for modeling in the IRP, Nexant will review and update the DSM potential models developed from the JEA MPS to account for changes in the JEA system that would modify their previous estimates. This analysis will primarily focus on changes to JEA's electricity production and distribution costs, as well as assumptions on DSM implementation scenarios. Nexant will use updated system cost information to review energy efficiency and demand response measure and program opportunities.

Nexant's prior study of energy efficiency, demand response, and distributed energy resource opportunities in the JEA service territory included a comprehensive set of DSM measures and technologies. For the energy efficiency analysis, Nexant will re-screen and remodel the approximately 250 measures to apply criteria and cost updates provided by JEA. The resulting estimates of energy efficiency potential will be described in terms of estimated costs, energy savings, and peak demand capacity savings. Nexant will work to develop the requisite energy savings load shapes and PLEXOS modeling inputs. Nexant's review will re-examine the previous demand response strategies and estimates, updating JEA avoided costs and other relevant changes to customer demand characteristics, again focusing on demand response program costs and system avoided costs. Nexant will examine a range of demand response devices offering direct load control, including popular "bring-your- own thermostat" program approaches, as well as other commercial and industrial DR offerings analyzed in the JEA MPS, such as critical peak pricing, contractual DR, base interruptible DR, and automated DR. The DR inputs, including summer and winter impacts, and frequency and duration of available DR will serve as PLEXOS modeling inputs. The rescreen will include similar sensitivities as used in the original study and will also include analysis with and without the free ridership screen thru the achievable potential.

4.5 EVALUATE AND PREPARE FORECASTS

4.5.1 Review JEA Demand and Energy Forecasts (Objective 4.2)

The Team will review and support refinement of JEA's long-term demand and energy forecast. We will review the forecast with JEA to understand the basis for the forecast, any changes to underlying factors

that may cause the forecast to change, and the methodology for generating the forecast. We will also compare the forecast to forecasts that we have performed for the region, as well as forecasts for other Florida utilities provided in their 10-Year Site Plans which are available in the public domain. We then work with JEA to either revise the forecast if necessary or adopt the forecast for use in the PLEXOS modeling. The Team will also review of JEA's demand and energy forecasting process and recommend modifications if necessary. JEA can continue to perform the current process and should be able to accommodate minor modifications.

4.5.2 Review JEA Fuel Commodity and Transportation Forecasts (Objective 4.3)

The Team, led by Black & Veatch, will develop a market fundamentals based natural gas price forecast to support the IRP process. Black & Veatch will review the key fundamental drivers that could cause natural gas prices to sustain the current price levels and identify likely fundamental drivers that will keep natural gas prices toward a higher equilibrium price. Using GPCM, an industry recognized model, Black & Veatch will develop a 25-year natural gas price forecast that incorporates higher levels of LNG exports caused by the Russia-Ukraine conflict, a continued limitation of pipeline take-away capacity from the Permian and Marcellus/Utica, and higher labor, capital and E&P production costs associated with the current inflationary price environment. Black & Veatch will incorporate the upstream transportation costs on either FGT/SONAT and TECO to develop a delivered cost to each proposed site.

In addition, costs for interstate transportation (taking into account reasonable assumptions developed via collaboration with JEA related to JEA's existing natural gas transportation arrangements and incremental requirements for firm and interruptible natural gas), applicable pipeline transportation system loss, and intrastate transportation/distribution costs will be added to the commodity price projection based on historical cost analysis and expected future conditions, as applicable.

Also, Black & Veatch will use an econometric model to forecast higher West Texas Intermediate (WTI), Residual (No. 5 & No. 6) and Distillate (No. 1 & No. 2) prices and evaluate the impacts of the current supply chain shortages that are impacting E&P activity today and will evaluate the impact of global oil markets on Lower 48 market fundamentals. Black & Veatch will examine global demand drivers and the pull of global exports on WTI prices and develop an econometric based price forecast that reflects a continued tighter balance between global demand and supply. Black & Veatch will provide the residual and distillate prices as part of an input to the IRP process.

Also, Black & Veatch will review the near-term rise in coal prices and develop a forecast for coal prices that reflect the current market conditions today. As part of this analysis, Black & Veatch will examine the impact that the Russia-Ukraine conflict has had on near-term coal demand and its potential impact on Lower 48 coal prices. Black & Veatch will rely upon EIA AEO coal price forecasts as the underlying price forecast and quantify the potential adders to the price based on historical analysis of key coal market drivers.

It should be noted that developing fuel price projections utilizing publicly- available information, as outlined in this activity, is often beneficial if the fuel price projections are incorporated into a Determination of Need filing under the Florida Power Plant Siting Act.

4.5.3 Forecast JEA C&I Electrification Incentive Program and EV Penetration (Objective 4.7.1)

Understanding the projected future electricity demand is important to resource planning. The JEA C&I Electrification Incentive Program and electrification of vehicles will create stimuli that require analysis.

The Team will review the projections provided by JEA and incorporate national data as well as the results of similar EV studies performed for a southern California Utility, a Midwest state's Department of Transportation and others to refine and extend the current forecasts of vehicle penetration, kW, and kWh for a 30-year period. A similar review will be conducted of the C&I Incentive Program forecast and the Team will revise and recast the projection considering any observed actuals and data from similar programs implemented in other jurisdictions. The Team will work with JEA Resource Planning and Customer Solutions Groups to develop PEV/PHEV penetration forecasts for each scenario as required.

4.5.4 Forecast Residential and Commercial Solar and Battery Storage Installations (Objective 4.7.2)

Similar to the development of EE and DR potential, as a starting point for this task, Nexant will leverage the analysis and supporting models from the JEA MPS. The MPS included estimates of technical potential for solar PV and battery storage systems in JEA's service territory for residential and commercial customers. Many of the same assumptions and outputs can be leveraged for this engagement, though additional analysis will be required to meet the proposed scope of work. Nexant will work with JEA Resource Planning and Customer Solutions Groups to develop rooftop solar PV penetration forecasts for each scenario as required.

With respect to solar PV, the JEA MPS estimated technical potential for solar PV and accounted for available roof space (including pitched vs. flat roofs, other roof equipment, etc.), PV power density, hourly generation shapes, and AC/DC ratios, among other factors. These technical potential calculations will be supplemented by forecasting market adoption of solar PV systems over a 30-year forecast horizon. For this task, Nexant will use its Spatial Penetration and Integration of Distributed Energy Resources (SPIDER™) model. SPIDER employs an enhanced version of a Bass diffusion model implemented in a System Dynamics framework. A rigorous hourly economic analysis will enable calculating the point at which it is cost-effectiveness for customers to install a system as a function of $/kW, discount rates, and other costs using the extensive sensitivity analysis capabilities of SPIDER.

With respect to storage, the JEA MPS focused primarily on technical potential for paired solar + energy storage systems. In addition to these combined systems, Nexant will analyze stand- alone battery storage systems for the commercial sector. In the commercial sector, many stand- alone storage systems are installed primarily to reduce customer electric bills through peak demand reduction. Nexant will supplement the previous technical potential calculations with forecast storage adoption for both sectors over a 30-year time horizon. To account for the complex economics of a storage technology, which can shift load to reduce energy charges (e.g., through on/off peak period arbitration) or reduce peak demand charges, Nexant will utilize the hourly battery storage dispatch optimization module in the SPIDER™ model (referenced above). This module simulates the hourly dispatch of stand- alone or solar-paired storage systems using linear programming. It can account for any JEA electric rate structure (e.g., TOU rates, peak demand charges), system characteristic (e.g., energy and peak demand capacity, round-trip efficiency), customer load profile, and if applicable, solar PV generation profile. This model enables rigorous calculation of all components of electric bill savings (for the customer) or avoided costs (for the utility) required to fully understand the economics of battery storage. These system economics then drive market adoption of storage systems, which is modeled using the same technology diffusion approach discussed in the solar PV section. For both solar PV and battery storage, our SPIDER model enables rapid sensitivity analysis of any input parameter to determine break-even points for a customer or the utility, as required per the RFP.

4.5.5 Forecast JEA Interruptible and Curtailable Program (Objective 4.7.3)

Nexant will leverage the JEA MPS analysis and models to update demand response strategies and estimates and forecast potential interruptible and curtailable impacts over the 30-year planning horizon. The economic analysis will incorporate updated JEA avoided costs and other relevant changes to the delivery of these program structures to identify the value of this available capacity from both the customer perspective and JEA's perspective, to be reported in both capacity value ($/kW) and energy value ($/MWh).

4.5.6 Forecast Emissions Allowance Prices

The Team will develop emissions allowance price forecasts for each scenario and sensitivity in conjunction with JEA Fuels group, JEA Environmental Group, and the results of the Environmental Assessment. This will include CO2 and non CO2 emissions. REC prices will be forecast as the least cost incentives necessary to deliver renewable development to reach each states' RPS mandates. The forecast will incorporate renewable generation development potential across the United States, topography and siting constraints, generation and transmission capital costs for delivery to market, and wholesale energy and capacity forecasts to inform the analysis.

4.6 DEVELOP AND RUN THE PLEXOS MODEL

The Team, led by BVMC, will performing the IRP modeling using the PLEXOS modeling platform. The foundation will be BVMC's Energy Market Perspective ("EMP") PLEXOS model for the eastern interconnect.

4.6.1 Modify PLEXOS for JEA, Input Resources, Forecasts, Assumptions

The EMP will be customized to create a specific JEA model for the IRP (the "JEA Model"). The customization will require certain data, forecasts, and assumptions from JEA that are not available in the public, subscriptions, or BVMC databases. These will include, but not be limited to, the list below (the "JEA Inputs"), with such information being included within the IRP Data Request discussed earlier in this proposal:

- Generation unit characteristics for modeling;
- Zonal transfer limits;
- Historical load, fuels, transmission flows, and unit generation for benchmarking;
- Ancillary service requirements;
- Planned maintenance schedules;
- Value of loss of load (VOLL);
- Any other operational constraint required for reliability purposes;

The JEA Model will include the entire JEA footprint including JEA generating units, JEA generation and load areas, JEA transmission connections with external markets, JEA transmission constraints, JEA operating parameters such as spinning and non- spinning reserves and regulation and planned and un-planned outages. To the extent JEA's interaction with the external markets will be considered, such interaction will be represented based on the EMP assumptions of load, supply, and constraints. Both the

external markets and the JEA footprint will be simulated on a zonal basis. The IRP study period will cover 30 years, starting from 2022.

4.6.2 Run Test Scenarios and Benchmark Results

The JEA Model will initially be utilized to run hourly time step simulations of the JEA system and benchmark results to the historical load, fuels offtake, transmission flows and unit generation information provided by JEA to confirm the JEA Model reasonably represents actual operation of the JEA resource portfolio. A standard quality assurance ("QA")-quality control ("QC") approach will be utilized to verify the model inputs and outputs and perform a gap analysis to identify the differences between the simulated and actual system; the PLEXOS model will then be calibrated if needed.

4.6.3 Run Scenarios and Sensitivities

Study-specific data developed for and provided as part of this IRP (such as the 30-year energy and peak load forecasts, fuel price forecasts, operating and performance parameters for existing and SSOs, capital costs of SSOs, location-specific hourly solar shapes for the existing solar and solar candidate technologies, and all other relevant assumptions and parameters) will be integrated into the PLEXOS model. The PLEXOS expansion planning model will include a minimum planning reserve margin ("PRM") to meet future resource adequacy requirements. While JEA typically targets 15 percent, this assumption will be confirmed with JEA. The JEA Model will also include ramping constraints as a function of renewable capacity and JEA's system load to account for the changes in ancillary service requirements. To assess the hourly performance of the expansion plan, we will run hourly simulations for the study period 2022-2050. If the hourly simulations show that reliability requirements are not met, such as excessive unserved energy, the JEA Model will be recalibrated.

4.6.4 Assess Near Term (2022-2030) Results, Rerun

The near-term timeframe (2022-2030) will include the option to invest in life extension of Northside Unit 3 ("NS3") or retirement of NS3 as described elsewhere in this proposal. Costs for life extension will reflect capital costs, O&M costs, fuel costs, water-related costs, and additional land-related costs. Options related to retirement of NS3 and replacement will include solar SSOs with and without energy storage, DSM/EE, and other appropriate SSOs as characterized in the IRP. In general, all relevant considerations to reflect in the near-term evaluations will be confirmed with JEA as part of the IRP process.

4.6.5 Assess Mid-Term (2031-2040) Results, Rerun

The Mid-Term timeframe will include the option to discontinue operations of Northside Unit 1 and Unit 2. Depending on the system conditions during this timeframe, the JEA Model will be used to assess tradeoffs between the costs and benefits of both units and decide to keep or replace based on the economics, reliability, or both. All SSOs, including solar with and without energy storage, characterized for this IRP will be considered in the mid-term. In general, all relevant considerations to reflect in the mid-term evaluations will be confirmed with JEA as part of the IRP process.

4.6.6 Assess Long-Term (2041-2050) Results, Rerun

The long-term timeframe will include consideration of continued operation of the Brandy Branch units, expiration of the Plant Vogtle 20-year term PPAs (two, 100 MW PPAs, each with a 20- year term), and additional options that may be required to meet the load, reliability, adequacy, and regulatory requirements. In general, all relevant considerations to reflect in the long-term evaluations will be confirmed with JEA as part of the IRP process.

Each timeframe will include specific decision-making criteria and results of the analysis will be presented to JEA based on each timeframe. Although results will be presented separately, the JEA Model will be run for the entire 30-year IRP study period and the interdependencies between decisions across the timeframes will be accounted for.

The Team will provide key cost and other financial related outputs from the JEA Model to the JEA Finance group for their analysis of rate impacts and other financial impacts. Our scope of work does not include analysis of potential rate impacts.

4.7 PERFORM SPECIAL STUDIES

These special study tasks will only be performed at JEA's discretion.

4.7.1 Perform Solar Integration Analysis including Ramp Rate and Range Requirements with Future Solar (Objective 3.3)

Between one customer with an on/off 80MW load and existing solar PV (~50MW), JEA already faces challenges maintaining system balance to meet Area Control Error (ACE) requirements. Based on existing solar PV data, the incremental 250 MW of the committed 5x50MW solar PV project is expected to create ramp rate and ramp range needs that JEA will struggle to meet with current resources. Under this task, the Team will assess the variability of solar production including estimating the incremental system ramp rate and ramp range requirements to integrate the 250 MW of solar, and future solar in increments of 50 MW and 74.9 MW. The goal of this task is to identify and determine how to best meet the need for regulating reserve changes initiated by integration of incremental variable solar PV generation. This task should identify the effective ramp rate of current and proposed regulating reserves.

Once the JEA Model has been developed, benchmarked, and the initial hourly simulations run with the committed and future solar, hourly time-step results will be extracted and summarized including values for unserved energy, dump energy, generation, unit capacity factor, unit starts, unit reserve contributions, change in system average heat rate, and system costs. If unserved energy occurs beyond the Loss of Load Probability ("LOLP") target, it may be a signal that additional reserves are required for the solar penetration level. In this case, we will increase the reserves until the LOLP is within an acceptable limit. This iterative process, if needed, will allow us to determine if additional levels of reserves are required on an hourly basis. Results will be presented to and reviewed with JEA and re-run the simulations as necessary based on JEA comments or additional needs.

After the hourly simulations, the Team will work with JEA to identify specific periods during each simulation year that should be modeled on a sub- hourly basis (e.g., 1 min or 5 min). These periods are expected to include a representative summer day, a representative cold winter day, and a representative spring/fall shoulder month day. Typical days or weeks will be modeled and the number of periods will generally be limited to one (1) base, one (1) sunset and one (1) spring period for a total of three (3) for each year of the IRP study period. The output from these simulations will be used to determine impacts to JEA's unit commitment under increased solar penetration levels. Unserved energy and LOLP will be used as signals to increase or decrease the amount of reserves (regulation and spinning) for each simulation to determine JEA's needs. In addition, the fleet ramp rate will be evaluated for each simulation and the point of diminishing return (e.g. excess) of spinning reserves will be determined. Hourly results will be extracted and summarized for presentation to JEA and simulations will be re-run as necessary based on JEA comments or additional needs. If the sub- hourly simulations

reveal that a significantly higher level of reserves is required than was assumed for the hourly simulations, it may be necessary to re- perform the hourly simulations with these higher reserve levels so that these higher reserve levels are considered in the subsequent impact and costing work, since that work relies on results of the hourly simulations.

The Team will also evaluate a battery system sized and designed for smoothing the output of this solar PV, in particular the incremental 74.9 MW solar and one 50MW component of the committed 5x50 solar PV. The purpose of the battery would not be to levelize all solar output, but to mitigate ramp rate and ramp range at a level of output commensurate for the day, yielding a smoothed solar profile with minimal or no need to model additional ramp rate and ramp range needs. If this battery option is not economically selected to mitigate solar ramp rate for the proposed 5x50, at least one (probably more) appropriately sized batteries should be forced into the recommended resource mix as early as practical and evaluated for the ability and cost to mitigate solar ramp prior to an incremental combined cycle COD. The battery lifecycle O&M cost should include the cost of supporting the expected operating profile, developed from solar integration task (existing JEA 1-minute data).

Through this analysis the Team will ensure that the solar PV included in any IRP scenario has adequate integration means already present or will have adequate integration means included. Results will also support implementation of a PURPA avoided cost determination policy and procedure.

4.7.2 Perform PURPA Forecasting and Analysis

JEA currently has two PURPA related situations that require a forecast of 20 year avoided costs with and without inclusion of new solar on the JEA system. The Team will use the JEA Model to forecast avoided cost of new solar, both PPA and JEA owned resources. An iterative solar in/out methodology will be used to identify both capacity and energy avoided costs for 50 MW and 74.9 increments of new solar. The capacity analysis will consider the declining effective load carrying capability (“ELCC”) of solar as more is added to the JEA system. It will also consider the cost of additional reserves or solar smoothing batteries as identified in the Solar Integration Analysis described elsewhere in this proposal. Results of the analysis will be utilized by JEA in the PURPA related situations.

4.7.3 Evaluate Hydrogen Fuel Options

The Team will perform a high level assessment of the feasibility of using hydrogen gas instead of natural gas to reduce CO2 emissions from new CCCT supply side options over the study period of the IRP. Our methodology will be to calculate the volume and “break-even” cost of green hydrogen ($ per unit of volume) that would be required in order to achieve the same level of carbon reductions that are achieved through use of modular nuclear. This will be done by examining results from the JEA Model scenarios and perhaps running additional sensitivities to isolate the carbon reductions attributable to modular nuclear. We will then compare the break-even cost to green hydrogen price forecasts that are available in the public domain. We will also assess the feasibility of producing and delivering green hydrogen in the calculated volumes to the new CCCT locations considering the cost of blending with natural gas or converting existing natural gas delivery facilities to carry green hydrogen. Based on the breakeven cost compared to general price forecasts, and the overall complexity of delivery, we will provide general findings with respect to the overall feasibility of including green hydrogen as a fuel option in the JEA IRP.

For evaluation of producing, delivering and using green hydrogen, we will consider various technologies including:

- Hydrolysis using nuclear, wind or solar PV energy
- Pipeline supplied hydrogen from steam reformed natural gas, from a location where the carbon by product is captured and stored underground (carbon capture and storage or "CCS").
- On-site supplied hydrogen from steam reformed natural gas where the carbon byproduct is captured and shipped offsite
- Fuel cells
- Hydrogen capability of proposed gas-fired SSOs

4.8 PREPARE ACTION PLANS

4.8.1 Develop Supply-Side and Demand-Side Strategies and Recommendations (RFP 1.1.2)

The Team, led by nFront, will prepare a near-term (five years) Action Plan based on the evaluations performed for the IRP will be developed as part of the IRP. The goal of the Action Plan is to present how near-term supply and demand changes will contribute to and align with JEA's goals, regulatory compliance, and policy requirements. Demand side programs including EE and DSM will be summarized along with recommendations for future enhancements. Supply side resource changes (including contracts) will be detailed including near term unit retirements, unit conversions, and unit additions. Specific recommendations for new battery storage and renewable energy will be presented and discussed in detail including impacts on system reliability and operations. Changes to operations, if recommended, as a result of the IRP will be summarized. Expected impacts of the IRP in the near-term on environmental compliance and policies requirements will be summarized.

4.8.2 Develop Detailed Project Cost and Schedule for all Recommendations and Alternatives (RFP 1.1.2)

The Team, led by BV Power, will prepare Level 2 project schedules for up to three versions of the Action Plan. The respective schedules will include major milestones and major elements of engineering, procurement, construction, and commissioning work scope with summary logic ties between activities allowing the team to identify the critical paths in conjunction with JEA staff. Key interface points will be identified among the engineering, procurement, construction, and commissioning phases of the Action Plan alternatives to support further planning and schedule development activities. The Level 2 schedule will be developed using Primavera P6 or MS Project. Order of Magnitude cost estimates (+/- 50% accuracy) for up to three Action Plan alternatives will be provided.

4.9 PREPARE IRP REPORT

The Team will develop and transfer to JEA formal reports for distribution that meet or exceed all JEA requirements. Draft electronic transmittals will be sent in MS Word format accessible for electronic review and commenting, with final versions sent both as PDF files and MS Word files.

4.9.1 Prepare and Submit Report to 30% (RFP 1.2.6.2)

At this level of completion, the draft is expected to include the developed supply-side options, the forecast reviews, development of the PLEXOS model including the data and key assumptions, and progress of the Solar Integration task.

4.9.2 Prepare and Submit Report to 60% (RFP 1.2.6.2)

At this level of completion, the draft is expected to include initial modeling results, resource trends and further modeling recommendations and requirements, and Solar Integration results. It will also include responses to comment and changes requested by JEA during the 30% review on-site meeting. The draft Report will be transmitted to JEA in advance of the 60% review meeting.

4.9.3 Prepare and Submit Report to 90% (RFP 1.2.6.2)

At this level of completion, the draft is expected to include final modeling results. It will also include responses to comment and changes requested by JEA during the 60% review on-site meeting. The draft Report will be transmitted to JEA in advance of the 90% review meeting.

4.9.4 Prepare and Submit Draft Final Report (RFP 1.2.6.2)

A draft of the full Report will be provided for JEA review based on comments and changes requested by JEA including those from the 90% on site review meeting.

4.9.5 Prepare and Publish Final Report (RFP 1.2.6.2)

The Team will incorporate comments received from JEA including those from the draft Final Report on-site meeting and produce and publish a final version of the Report.

4.9.6 Provide Software (Objective 7)

The Team will transmit models and data used to perform the studies and produce results for the Services to JEA in electronic form with full JEA user access, including MS Excel and other software files and the production modeling database of existing units and supply side options that originate with the Team, but excluding any software tools to which the Team does not have rights to distribute, such as the production cost modeling software itself.

5.0 Perform CCCT Feasibility Study

Black & Veatch will perform detailed design, performance, cost estimating and EPC bid package preparation for a gas fired combined cycle resource if such a resource is selected by JEA for implementation as a result of the IRP. The potential gas-fired combined cycle resource is assumed to be an outdoor 1x1 combined cycle arrangement utilizing one (1) advanced technology natural gas combustion turbine, one (1) triple pressure, single pressure reheat heat recovery steam generators with supplemental firing, one (1) condensing steam turbine, one (1) dual pressure condenser with a mechanical draft cooling tower heat rejection cycle. The task will assess which of two sites should host the new resource, either GEC or SJRPP, with the results intended to support decision making by JEA concerning whether or not implementation of such a resource is feasible.

5.1 PREPARE FOR AND PARTICIPATE IN KICKOFF MEETING

Key members of the Black & Veatch staff that will perform the work will prepare for and participate in a kickoff meeting at the JEA offices in Jacksonville. Other members will participate via phone. The purpose of the meeting is to review the scope of work, establish responsibilities and lines of communication, and begin the process of data request and transfer between Black & Veatch and JEA. Adjacent to the meeting, Black & Veatch may visit the GEC and SJRPP sites and meet with utility providers and others as necessary.

5.2 DEFINE PROJECT OBJECTIVES

Black & Veatch will collaborate with JEA to develop a project objective scope to suit the power requirement needs of JEA. The objective will outline key features of each potential generation site and discuss proposed technology options for each.

5.3 PREPARE DESIGN BASIS DOCUMENT

Black & Veatch will gather and compile site specific information required to support the development of a project design basis document, specific for each potential site. Meteorological data will be gathered from the weather station historical data nearest to each of the selected sites.

5.4 PREPARE PROJECT EXECUTION APPROACH DOCUMENT

Black & Veatch will develop a project execution approach document including a level 1 conceptual engineering schedule showing the project major milestones.

5.5 PREPARE PRELIMINARY EQUIPMENT LIST

Black & Veatch will evaluate and prepare a preliminary equipment list based on the selected technologies. The preliminary equipment list will contain major equipment, description and preliminary estimated electrical loads.

5.6 PREPARE EXISTING JEA UTILITY INTERFACE CONCEPTUAL DESIGN

Black & Veatch will use available information provided by JEA and gained through site visits to conduct a review and evaluation of the existing utilities, surveys, structural features, existing equipment layout, and transmission corridor to evaluate and prepare recommended interface requirements required for the construction of the proposed facilities. The interfaces are assumed to be raw water, effluent and transmission.

5.7 PREPARE GAS LINE ROUTING, ROW INITIATING ACTIVITIES, COST ESTIMATING

It is anticipated that JEA will be initiating discussions with potential gas suppliers to bring gas supply pipeline(s) to the vicinity of each potential site. Black & Veatch will support JEA with required gas delivery quantities and pressures, as well as support JEA in conference calls with potential gas suppliers. Black & Veatch will route the gas service line from the gas supplier's meter station to the plant and provide cost estimates for the gas supply interconnection. Black & Veatch scope will include evaluation of work performed to date, including recommendations.

5.8 PREPARE T-LINE ROUTING, ROW INITIATING ACTIVITIES, COST ESTIMATING

It is anticipated that JEA's Transmission Engineering team is already engaged in the study of potential T-line routing options. Black & Veatch will support JEA with preferred interconnection scheme, location of interconnection facilities, and preliminary design of the switchyard and low-side interconnection from the generators to the GSUs. Black & Veatch scope will include evaluation of any work performed to date, including recommendations.

5.9 PERFORM GEOTECHNICAL ENGINEERING / TOPOGRAPHY ANALYSIS / SURVEYING

Black & Veatch will provide geotechnical plans, specifications, and scope of work defining the geotechnical information required to complete Black & Veatch's scope of work which can be used by JEA to contract with a geotechnical firm and provide the geotechnical data to Black & Veatch. Black & Veatch will coordinate with JEA's geotechnical firm to ensure required information is obtained during the geotechnical investigation at each site.

5.10 PREPARE SITE LAYOUT AND GENERAL ARRANGEMENT DRAWINGS

Black & Veatch will develop site specific plot plans, general arrangements, preliminary construction facilities plans, and other drawings needed to properly define the project and to support the permitting activities. Site layouts will include facilities typically required for a power plant of selected type and size such as water supply, water and waste water treatment, switch yard, storm water management, administration/control buildings, and warehousing as required. Black & Veatch will develop a site construction plan including site truck access and considerations which would be required for construction activities such as lay down and storage areas, temporary office facilities, parking and all other features typically required for the construction of such a facility.

5.11 PREPARE SITE SELECTION DIFFERENTIAL COSTS

Black & Veatch will develop the differential costs for water infrastructure, natural gas supply and transmission line to support preliminary review findings with JEA's upper management. These estimates would be refined during the development of capital cost estimate. once final selections are made and the details of the scope are finalized.

5.12 PERFORM LIFE CYCLE COST ESTIMATES ON KEY COMPONENTS

Based on economic parameters provided by JEA, Black & Veatch will perform spreadsheet calculations to determine the present value of major equipment selection options considering costs such as LTSAs. Black & Veatch will develop the life cycle cost estimate base on the nonfuel annual O&M costs, both fixed and variable components. The fixed O&M cost estimates will include annual labor and fixed maintenance expenses for the power plant, and other expenses such as insurance and property taxes. The variable O&M cost estimate will include expenses associated with annual outage maintenance, water and chemicals, and applicable reagents. The O&M cost estimate assumptions will also be prepared as part of this task.

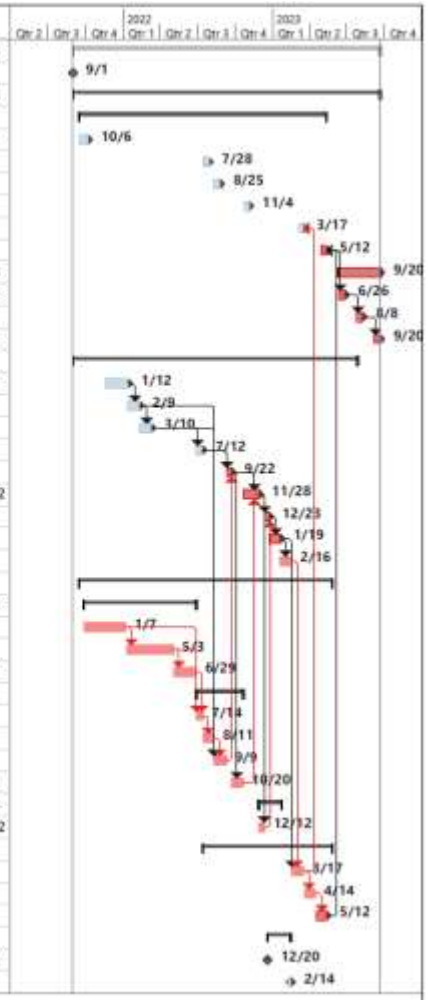
5.13 PREPARE PRELIMINARY PROJECT EXECUTION SCHEDULE INCLUDING DECISION HOLD POINTS

Black & Veatch will develop a Level 1 preliminary project schedule that includes Owner's site development activities, permitting, development of the EPC specifications and procurement package, EPC contract solicitation of bids, evaluation and selection, and execution of the EPC contract. Development activities leading to project decisions will be marked as milestones. Hold points such as Board Approval, permit authorizations, and contract awards will be denoted.

6.0 Critical Path Schedule

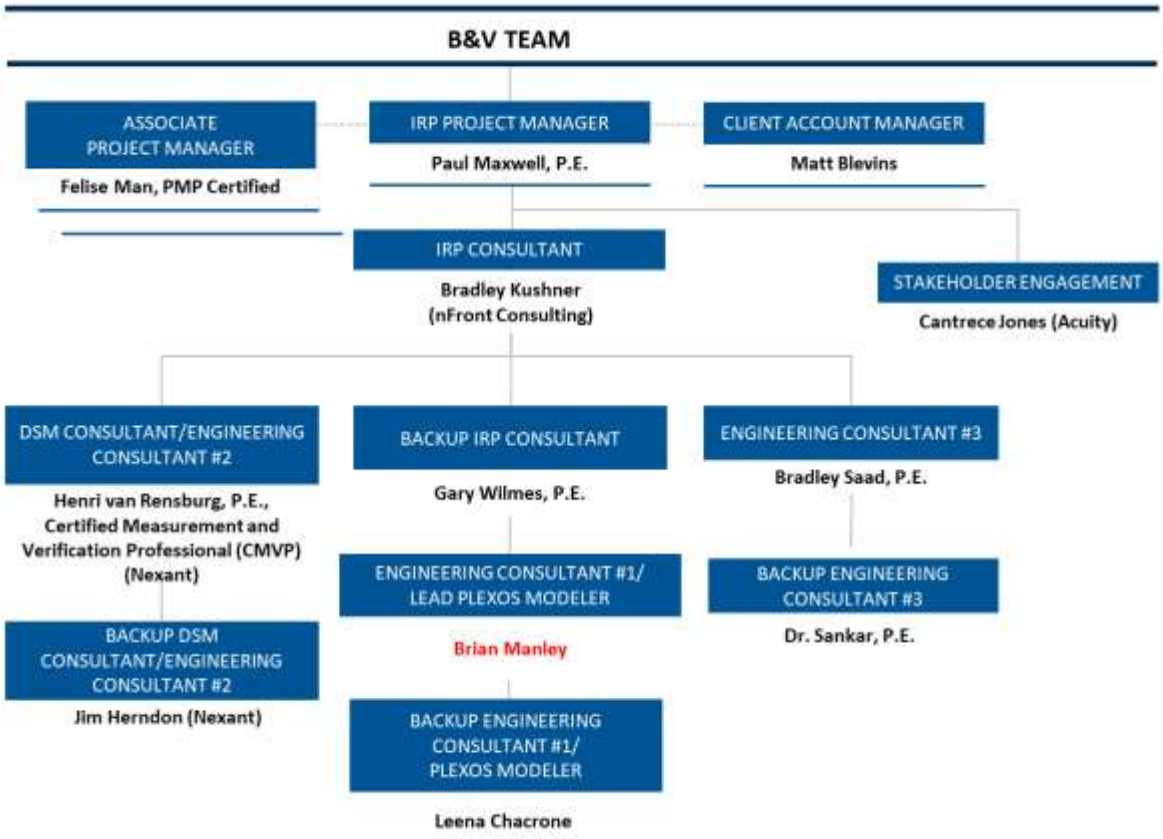
Below is a project schedule depicting only the tasks on critical path (shown in red) and the major milestones and overall expected time frame of the final work products and reports to be completed. The schedule assumes receipt of an executed contract from JEA on September 1, 2021.

ID	Outline Number	Task Name	Start	Finish
0	**0**	**Perform JEA IRP Services**	**Wed 9/1/21**	**Wed 9/20/23**
1	1	Receive Executed Contract from JEA	Wed 9/1/21	Wed 9/1/21
2	**2**	**Perform Project Communication and Management**	**Wed 9/1/21**	**Wed 9/20/23**
57	**2.4**	**Prepare for and Participate in On-Site Progress Meetings**	**Thu 9/16/21**	**Fri 5/12/23**
58	2.4.1	Prepare for and Participate in On-Site Scenario Workshop	Thu 9/16/21	Wed 10/6/21
59	2.4.2	Prepare for and Participate in On-Site 30% Progress Meeting	Fri 7/15/22	Thu 7/28/22
60	2.4.3	Prepare for and Participate in On-Site 60% Progress Meeting	Fri 8/12/22	Thu 8/25/22
61	2.4.4	Prepare for and Participate in On-Site 90% Progress Meeting	Mon 10/24/22	Fri 11/4/22
62	2.4.5	Prepare for and Participate in On-Site Draft Final Report Meeting	Mon 3/6/23	Fri 3/17/23
63	2.4.6	Prepare for and Participate in On-Site Published Final Report Meeting	Mon 5/1/23	Fri 5/12/23
64	**2.5**	**Prepare for and Participate in On-Site Meetings After the Published Final Report**	**Mon 6/12/23**	**Wed 9/20/23**
65	2.5.1	Prepare for and Participate in On-Site Meeting with JEA Leadership	Mon 6/12/23	Mon 6/26/23
66	2.5.2	Prepare for and Participate in On-Site Meeting with JEA Board	Tue 7/25/23	Tue 8/8/23
67	2.5.3	Prepare for and Participate in On-Site Meeting with External Stakeholders	Wed 9/6/23	Wed 9/20/23
68	**3**	**Perform Stakeholder Support**	**Wed 9/1/21**	**Fri 7/28/23**
75	3.7	Prepare for and Participate in Stakeholder Meeting #1 - Intro to JEA and IRP	Wed 11/17/21	Wed 1/12/22
76	3.8	Prepare for and Participate in Stakeholder Meeting #2 - Present Scenarios	Wed 1/12/22	Wed 2/9/22
77	3.9	Prepare for and Participate in Stakeholder Meeting #3 - Present Forecasts	Wed 2/9/22	Thu 3/10/22
78	3.10	Prepare for and Participate in Stakeholder Meeting #4 - Present Supply Side Options and D	Tue 6/28/22	Tue 7/12/22
79	3.11	Prepare for and Participate in Stakeholder Meeting #5 - Present PLEXOS and Initial Modelir	Fri 9/9/22	Thu 9/22/22
80	3.12	Prepare for and Participate in Stakeholder Meeting #6 - Present Revised Modeling and Stuc	Thu 10/20/22	Mon 11/28/22
81	3.13	Prepare for and Participate in Stakeholder Meeting #7 - Present Preferred Plan	Mon 12/12/22	Fri 12/23/22
82	3.14	Prepare for and Participate in Stakeholder Meeting #8 - Present 90% Draft IRP Report	Fri 12/23/22	Thu 1/19/23
83	3.15	Prepare Stakeholder Engagement Report	Fri 1/20/23	Thu 2/16/23
84	**4**	**Prepare Integrated Resource Plan**	**Thu 9/16/21**	**Fri 5/26/23**
92	**4.3**	**Develop Supply Side Resource Options and Alternatives**	**Mon 9/27/21**	**Wed 6/29/22**
93	4.3.1	Update Generic Supply Side Options from the 2019 IRP	Mon 9/27/21	Fri 1/7/22
98	4.3.3	Develop Vogtle PPA Options	Mon 1/10/22	Tue 5/3/22
100	4.3.5	Develop Generic Renewable Import Assumptions (Trans Constraints and Prices)	Wed 5/4/22	Wed 6/29/22
126	**4.6**	**Develop and Run the PLEXOS Model**	**Thu 6/30/22**	**Fri 10/21/22**
127	4.6.1	Modify PLEXOS for JEA incl Resources, Forecasts, Assumptions, Scenarios	Thu 6/30/22	Thu 7/14/22
128	4.6.2	Run Test Scenarios and Benchmark Results	Fri 7/15/22	Thu 8/11/22
129	4.6.3	Run Scenarios (6) and Sensitivities	Thu 8/11/22	Fri 9/9/22
133	4.6.7	Re-run as Necessary	Fri 9/23/22	Thu 10/20/22
138	**4.8**	**Prepare Action Plans**	**Tue 11/29/22**	**Mon 1/23/23**
139	4.8.1	Develop Supply-side and Demand-side Strategies and Recommendations	Tue 11/29/22	Mon 12/12/22
141	**4.9**	**Prepare IRP Report**	**Fri 7/15/22**	**Fri 5/26/23**
148	4.9.7	Prepare and Submit Draft Final Report	Fri 2/17/23	Fri 3/17/23
149	4.9.8	JEA Review of Draft Final Report	Mon 3/20/23	Fri 4/14/23
150	4.9.9	Prepare and Publish Final Report	Mon 4/17/23	Fri 5/12/23
152	**5**	**Perform CCCT Feasibility Study**	**Tue 12/20/22**	**Tue 2/14/23**
153	5.1	Receive Notice to Proceed from JEA	Tue 12/20/22	Tue 12/20/22
166	5.14	Prepare Preliminary Project Execution Schedule including Decision Hold Points	Tue 2/7/23	Tue 2/14/23



7.0 Staffing

Below is an organizational chart delineating the key members of the Team showing the specific position descriptions specified in the RFP and identifying the roles and tasks that each member will be involved in.



8.0 Compensation

Work will be performed on a time and materials (T&M) basis. We estimate that our labor fees to perform the services described in sections 1 through 6 of this proposal (the "Base Services") will total $2,293,788. We estimate that our travel and other expenses to perform the Base Services will total $46,000. Travel and other expenses will be billed at cost and in accordance with and not exceed the requirements of the JEA Travel Policy. These are estimates only. Actual fees and actual expenses may be more or less than these estimates based on the actual scope of work performed. We will not invoice for fees and expenses in excess of these estimates without first receiving approval from JEA.

8.1 BREAKOUT OF ESTIMATED LABOR FEES BY MAJOR TASK AND EXPENSES

A breakout of the estimated labor fees by major task is provided in the table below. This is provided for information only and does not represent a commitment to control cost at the individual task level. Please note that some of the IRP Follow Up Scope described in Section 8 below is not included in the estimated cost at this time due to the uncertainty of the scope of that work. We can provide an estimate for those services in the future when the actual scope of work is better known.

Labor Fees	
Perform JEA IRP Services	
Perform Project Communication and Management	$547,875
Perform Stakeholder Support	$167,608
Prepare Integrated Resource Plan	
Perform Initial Work	$66,064
Perform Environmental Assessment	$61,072
Develop Supply Side Resource Options and Alternatives	$426,862
Determine Demand Side Management Potential	$52,916
Evaluate and Prepare Forecasts	$158,222
Develop and Run the PLEXOS Model	$192,056
Perform Special Studies	$233,728
Prepare Action Plans	$35,798
Prepare IRP Report	$120,998
Perform IRP Follow Up Scope	
Perform CCCT Feasibility Study	$230,589
Total Labor Fees	$2,293,788
Expenses	$46,000
Total Labor Fees and Expenses	$2,339,788

8.2 LABOR BILLING RATES

Labor fees will be invoiced on a monthly basis based on the actual hours performed by each Team member, multiplied by the hourly rate for the classification of that Team member from the rate table provided below (the "Billing Rates"). The Billing Rates will be applicable to the Base Services and shall remain fixed through completion of the Base Services. Any IRP Follow Up Services performed prior to December 31, 2022 shall be billed at the Billing Rates in this proposal. After December 31, 2022 any IRP

Follow Up Services performed shall be at the adjusted rates per the labor rate adjustment mechanism described below. Travel and other expenses and will be invoiced on a monthly basis at cost and in accordance with the JEA Travel Policy.

Project Functional Area	Project Title	Billing Rate ($/hr)
PM Consultant	Senior PM Consultant	$357
	PM Consultant 3	$342
	PM Consultant 2	$313
	PM Consultant 1	$260
IRP Consultant	Senior IRP Consultant	$357
	IRP Consultant 5	$342
	IRP Consultant 4	$313
	IRP Consultant 3	$291
	IRP Consultant 2	$260
	IRP Consultant 1	$193
DSM Consultant	DSM Consultant 7	$357
	DSM Consultant 6	$275
	DSM Consultant 5	$220
	DSM Consultant 4	$192
	DSM Consultant 3	$154
	DSM Consultant 2	$132
	DSM Consultant 1	$88
Stakeholder Consultant	Senior Stakeholder Consultant	$204
	Stakeholder Consultant 3	$105
	Stakeholder Consultant 2	$83
	Stakeholder Consultant 1	$57
IRP Engineer	Senior IRP Engineer	$268
	IRP Engineer 3	$238
	IRP Engineer 2	$187
	IRP Engineer 1	$120

8.3 EXPECTED LABOR HOURS TO BE BILLED

The table below shows the expected hours to be billed by billing title, along with the associated Billing Rates and cost for the billing title, adding up to the total labor fees compensation required.

Project Title	Billing Rate ($/hr)	Hours	Cost
DSM Consultant 2	$132	88	$11,616
DSM Consultant 3	$154	599	$92,169
DSM Consultant 4	$192	30	$5,760
DSM Consultant 6	$275	120	$33,000

Project Title	Billing Rate ($/hr)	Hours	Cost
DSM Consultant 7	$357	171	$61,047
IRP Consultant 2	$260	347	$90,090
IRP Consultant 4	$313	1,988	$622,244
IRP Consultant 5	$342	429	$146,547
IRP Engineer 1	$120	290	$34,740
IRP Engineer 2	$187	1,252	$234,124
IRP Engineer 3	$238	1,524	$362,712
PM Consultant 2	$313	24	$7,599
PM Consultant 3	$342	184	$62,817
Senior IRP Consultant	$357	1,268	$452,484
Senior Stakeholder Consultant	$204	339	$69,238
Stakeholder Consultant 1	$57	89	$5,082
Stakeholder Consultant 2	$83	0	$0
Stakeholder Consultant 3	$105	24	$2,520
Senior IRP Engineer	$268	0	$0
Grand Total		**8,765**	**$2,293,788**

8.4 LABOR RATE ADJUSTMENT

For IRP Follow Up Services that are performed after December 31, 2022, we will apply an adjustment to the Billing Rates (an Employee Cost Trend adjustment or "ECT Adjustment"). We will apply another ECT Adjustment for IRP Follow Up Services that are performed after December 31, 2023 (the "ECT Anniversary Date") and similarly at each subsequent ECT Anniversary Date.

The ECT Adjustment will be based on the "US Bureau of Labor Statistics Series CMU201540A120000D - Total compensation cost per employee hour worked for private professional and business services industry workers in professional and related occupations" cost index which is reported quarterly ("BLS Index"). The ECT adjustment will equal the percentage change in the BLS Index for the quarter ending on the Anniversary Date versus the BLS Index for the same quarter of the prior year.

The BLS has historically published the BLS Index for a given quarter approximately three (3) months after the end of the quarter. Therefore the ECT Adjustment will be applied by us to the Billing Rates for labor hours incurred on the date that BLS posts the index and over the next 12 month period only (no retroactive rate adjustments will be made). The maximum allowed ECT Adjustment is three percent (3%) up and two percent (2%) down.

In the event that the BLS ceases publication of the BLS Index, we and JEA shall mutually agree on a replacement index. If we and JEA fail to agree on a replacement index, we and JEA will attempt resolution under the terms of the Contract.

9.0 IRP Follow Up Scope

The Team will support the scope that may occur following completion of the IRP scope. It is not possible to define the range and cost of this scope without first knowing IRP results and knowing the regulatory and political climate at the time of IRP completion. The following descriptions are representative of activities typical for these Post-IRP follow up tasks. As the nature of these IRP follow up tasks is regulatory and involves filing and defending testimony before the Florida Public Service Commission (PSC) relative to the IRP execution and results, only the Team executing the IRP is able to perform these tasks. When the time to execute any of these tasks arises, and the scope is known, the Team will work with JEA to modify the contract scope and cost accordingly.

9.1.1 Florida Power Plant Siting Act (PPSA) Support

The Florida PPSA administered by the Florida Public Service Commission (PSC) regulates siting, construction and operation of all steam units greater than or equal to 80MW in the state of Florida, and all solar units greater than or equal to 75MW. It is a multi-step process leading finally to all necessary construction and operating permits for a new facility. It begins with a Market Test to evaluate the market for lower-cost alternatives. It follows with the Need-For-Power Application (NFP), in which the legal need for the power plant is defended before the PSC. This process is variable in length and scope depending upon the quantity of interveners. If the certificate of need is granted, the last step is the Site Certification Application. Following completion of this 18 month permitting process, the facility can be constructed. The entire PPSA process takes approximately 3 years if all filings are prepared in parallel with ongoing processes in order to compress schedule. While the process is well defined, the nature and quantity of interveners, and the politics of the PSC will affect the term of this process, which will affect cost. Therefore, cost cannot be estimated with certainty in advance.

9.1.2 Florida Environmental Efficiency and Conservation Act (FEECA) Filing and Support

Reducing Florida's peak electric demand and energy consumption became a statutory objective in 1980, when the Florida Energy Efficiency and Conservation Act (FEECA) was enacted by the Florida Legislature. FEECA emphasizes reducing the growth rates of weather-sensitive peak demand, reducing and controlling the growth rates of electricity consumption, and reducing the consumption of scarce resources, such as petroleum fuels. During the 2008 legislative session, the Legislature amended FEECA to place greater emphasis on the pursuit of all cost-effective energy efficiency measures including demand-side renewable energy systems.

In implementing FEECA, the Florida PSC must establish numeric conservation goals for each FEECA utility, at least every five years. FEECA goals were last set by the Florida PSC in 2019. Utilities must evaluate a wide variety of conservation and peak-reducing measures to improve the efficiency of homes and buildings, and energy consuming devices. Once goals are established by the commission, the utilities have 90 days to submit for Commission approval of cost-effective demand-side management (DSM) programs designed to meet these goals.

Note: The Florida PSC is currently in the process of initiating rulemaking to explore possible rule revisions to FEECA, Docket 20200181-EU - Proposed amendment of Rule 25-17.0021, F.A.C., Goals for Electric Utilities.

9.1.3 Forecast Breakpoint Cost of Utility vs. Large C&I Owned Energy Facilities (Objective 4.7.4)

The JEA MPS calculated the economics of many self-generation and storage technologies (e.g., solar PV, micro-turbines, reciprocating engines, etc.). This information will be leveraged for this study and supplemented, as required, for other self- generation technologies of interest to JEA. Nexant will calculate the economics of these technologies to determine break-even points under for a variety of input assumptions (e.g., $/MW initial cost, fuel costs, discount rates, JEA electric rate structure ($/ kWh, $/kW), or other inputs). Customer economics will be compared relative to purchasing electricity through JEA through traditional centralized power supply, considering the cost of the utility to provide backup firm generation.

The economic analysis will be tailored to large commercial and industrial customers, which are expected to have different generation profiles, electric rates, system costs, and customer load shapes than residential or smaller commercial customers. The Team will work with JEA to determine the technologies of greatest interest (assumed to be roughly 5-8 technologies for this engagement) and to ascertain the input parameters to be used in sensitivity analysis and break-even point calculations. For battery storage, the same SPIDER dispatch optimization module will be employed to ensure accurate economic calculations of this complex technology.

9.1.4 Develop Framework for Decentralized Utility vs. Customer Owned Facilities (Objective 4.7.5)

Utilities and regulators are increasingly evaluating their approach to business models with the increase of decentralized facilities and increasing variety of energy products. The Team will develop a framework on which a cost-benefit analysis can be completed for ownership models of energy facilities including power supply, back-up generation, renewables and other utility products. This analysis will establish the framework to evaluate a range of technologies to evaluate and quantify the cost and benefits associated, including the following:

- Utility earnings (or loss thereof) such as impacts to rate base, capital deferrals, retail sales, performance-based revenues
- Participant and non-participant bill impacts
- Grid impacts and optimization
- Operating costs and operational synergies
- Environmental benefits
- Risks and future opportunities

9.1.5 Perform Owner's Engineer Services

We will perform numerous engineering services in support of JEA's implementation of the new resources and other measures identified in the IRP Action Plan(s) or through other means ("Owner's Engineering Services", or "OE Services"). OE Services would include but not be limited to construction management and contract administration, value engineering analyses to identify potential changes

which may enhance efficiency, reliability, serviceability or economy of resources, expediting of contractor schedules, working to reduce the cost of construction or otherwise enhance benefits to JEA, and specialty inspection and equipment testing as necessary.

9.1.6 Perform Rate Impact Analyses

After the results of the IRP costing and modeling become available, we would prepare a financial model allowing JEA to quantify year-to-year overall rate impacts of the various IRP scenarios. The model will capture JEA debt service, coverage ratios, and O&M Expenses, including variations associated with each IRP scenario. The model will capture the entire JEA organization. As a foundation for the model we will request JEA's existing financial model and JEA's input on generic assumptions (e.g., interest rates) that JEA uses in preparing organizational financial plans. The model output will include a projection of JEA's revenue requirement and price stated in $/MWH for the study period for each scenario for each year.

PROPOSAL FOR JEA

DER Readiness Assessment

October 21, 2022

BLACK & VEATCH

Table of Contents

Black & Veatch Management Consulting, LLC
11401 Lamar Avenue, Overland Park, KS 66211
P +1 704-510-8454 | E WilhiteRT@bv.com

October 21, 2022

Jordan Pope
Vice President, Corporate Strategy

RE: Update to Black & Veatch Proposal for DER Readiness Assessment

Dear Jordan:

Black & Veatch Management Consulting, LLC (Black & Veatch) is pleased to present our updated approach and qualifications to perform a DER readiness assessment for JEA.

Based on discussions with JEA team members, we understand that JEA seeks an assessment of the current organization's ability to integrate DER. We will accomplish this by working with JEA to understand the current state, develop an initial future state vision, and identify the gaps related to the people, process, and technology capabilities. This assessment will provide JEA with an understanding of the gaps in capabilities to support DER integration across the organization. For this update, we have added the governance scope to identify a team and processes to oversee the execution of a DER strategy.

Black & Veatch has a 105-year legacy leading the industry in planning, designing, and implementing utility infrastructure. This unique combination of strategy, regulatory, engineering, and technology expertise distinguishes us from traditional advisory firms and will be beneficial to this assessment. We were among the first to begin assessments for solar adoption and DER forecasting and determining if those DERs could address grid needs as alternative solutions. As Black & Veatch is currently working with JEA to develop its IRP, we will leverage our knowledge of your company's resource objectives to inform this related work. The IRP will set resource goals, including levels and types of DERs, that contribute to meeting the electricity needs for JEA customers.

Black & Veatch professionals are experienced in areas critical for DER integration, including integrated distribution and system planning, transmission and resource planning, grid modernization, grid operations, advanced rate design, cost/benefit analysis and customer program design. We have supplemented our team with experts from Energeia who bring modeling and strategic planning experience related to DER adoption and grid integration. In addition to this experience, our team brings the passion associated with working on DER strategies and contributing to the energy industry transition.

We appreciate the opportunity to perform this DER readiness assessment for JEA and look forward to continuing and expanding our partnership. If you require additional information, please contact Heather Donaldson at +1 916-693-2835 or DonaldsonH@bv.com.

Sincerely,

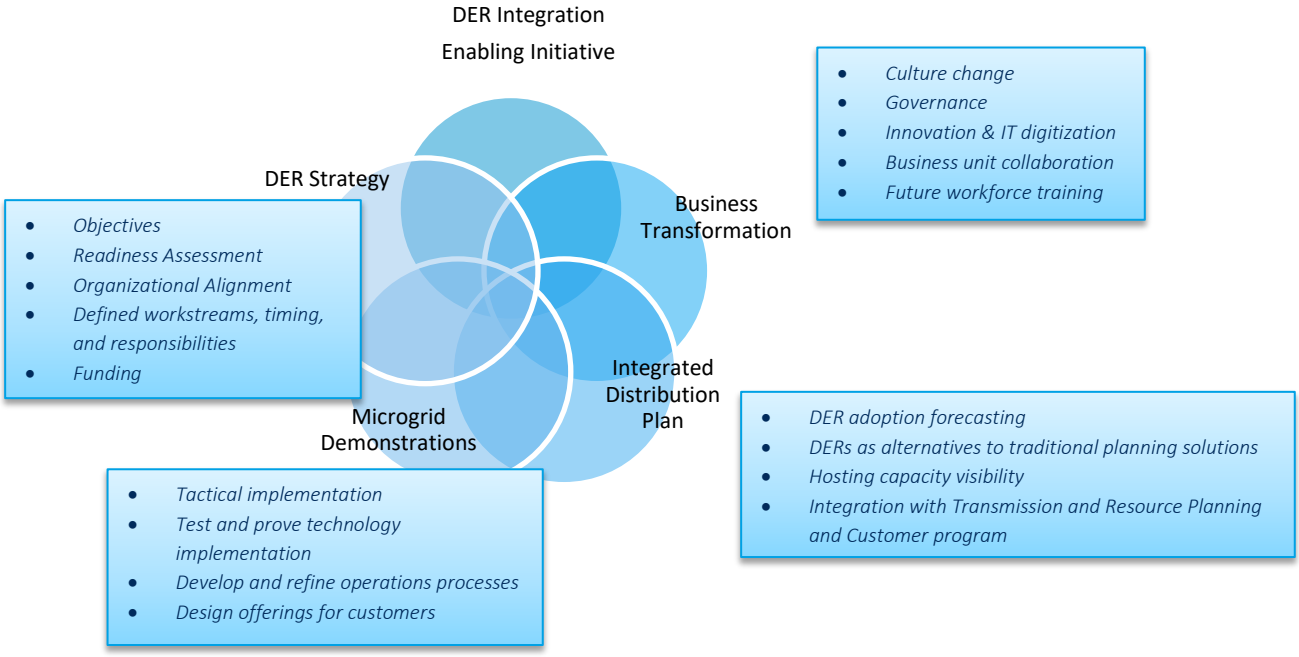
Rob Wilhite
Senior Vice President

Our Understanding

As a starting point to JEA's transformation journey to a more digital utility that incorporates renewables and distributed energy resources (DERs), JEA wants to assess its readiness to enable DER integration in advance of the IRP final report. JEA recognizes that there are several capabilities and competencies that are known to be required and others that will depend on customer objectives, policy goals, role of DER in reliable grid management, and other considerations.

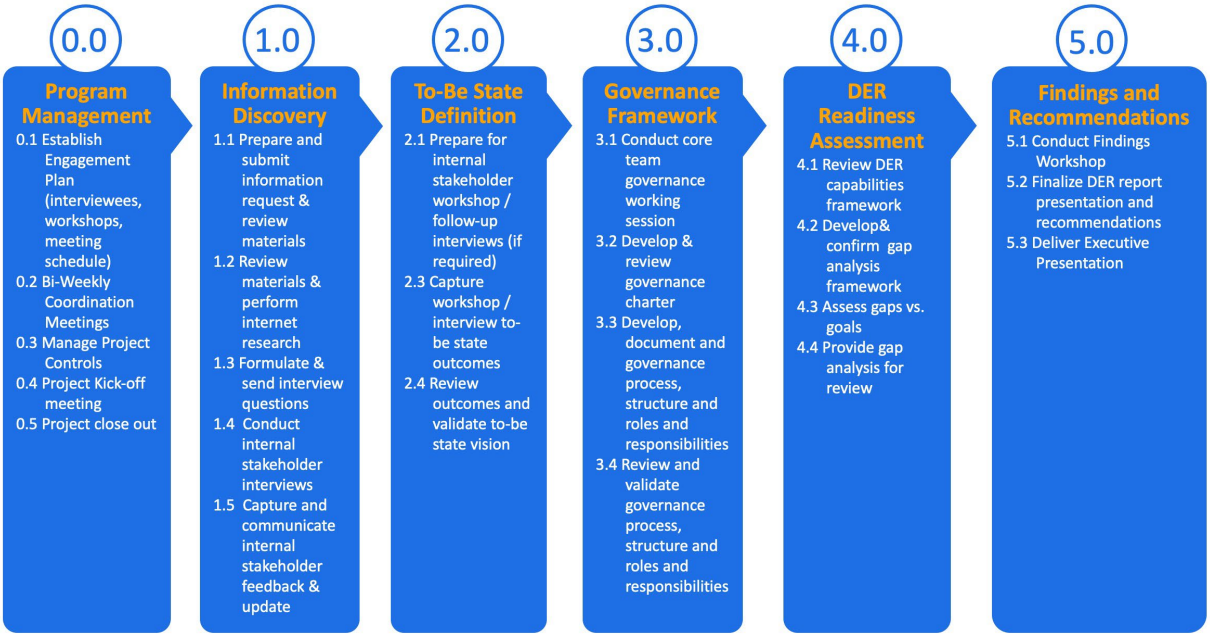
JEA is at the ground floor with the capabilities needed to integrate DER and wants to deliberately formulate a strategy for a managed, successful execution. JEA has many DER efforts in flight without an overall coherent plan. While understanding what activities are needed to enable DER integration is important, it will be essential for JEA to manage the organizational change to gain stakeholder alignment.

There are four separate, related workstreams related to DER for JEA as captured below. JEA needs all these elements and more to drive a successful transformation initiative. The DER Readiness Assessment sets the foundation and the roadmap and begins to achieve alignment. Business Transformation recognizes all aspects of change and manages it through the process as well as establishes decision-making governance and prepares the workforce. Integrated Distribution Planning is a focused workstream critical to DER integration. The DER Strategy will identify additional workstreams to prepare other organizations for DER Integration. The microgrid demonstration component is included as a tactical activity to learn and build technical and organizational capabilities and develop offerings for customers.



Project Scope and Approach

Black & Veatch brings a proven approach to perform the DER gap analysis for JEA as illustrated and described below. Please refer to Appendix A Grid Plan Expertise for insights into Black & Veatch's capabilities, experience, and unique insights into DER integration. Note that these activities are not necessarily conducted sequentially but conducted in parallel as appropriate as they inform each other. The proposed schedule in the next section shows the timing of the proposed work.



Task 0.0 Program Management

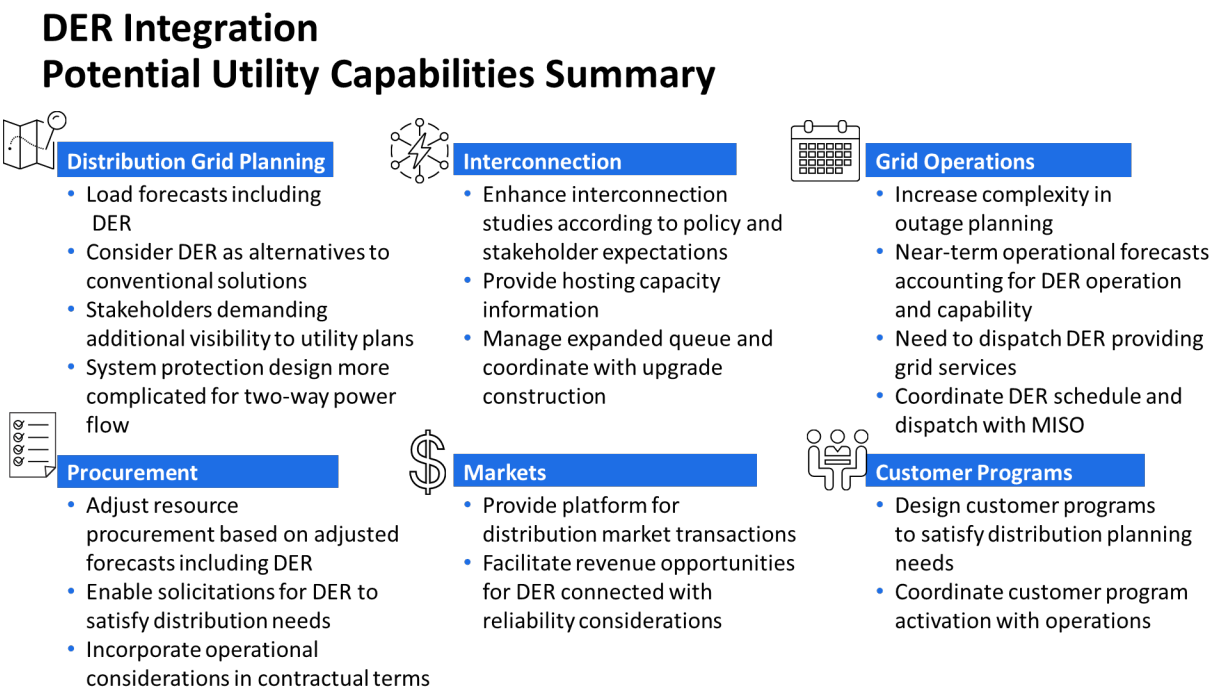
Black & Veatch will provide project management to manage the scope and schedule of the project. We begin by establishing the engagement plan – who we will interview, how we will conduct the interviews, and when they will take place. We will also establish the format to deliver weekly status reports. Black & Veatch program management includes managing to the agreed scope and budget, coordinating across the joint Black & Veatch and JEA project team members, establishing a shared team site for project materials, facilitating status meetings including the project kick-off meeting, and managing issues as they arise. JEA will establish a project sponsor and core team to help support the project and coordination and participation with internal JEA team members.

Deliverables: Kick-off Meeting Presentation

Weekly Status Updates via e-mail

Task 1.0 Information Discovery

We will prepare and submit an information request to gather and review existing JEA efforts to better understand where JEA currently is in its efforts with DER. As Black & Veatch is currently assisting JEA with its IRP, we are already aware of some of these activities. We also understand there are various DER initiatives in flight that may or may not be coordinated across the organization. The scope of the information discovery, to-be state, and readiness assessment will include topics related to capabilities as illustrated in the figure below. We will work with the JEA core team to confirm these capabilities and agree on a framework to perform the readiness assessment in Task 4.0.



We understand that a key aspect for JEA and any utility facing any change of this magnitude requires culture change and change management to align stakeholders. We will work with the JEA core team to include all organizations responsible for capabilities that could be required to support DER integration at JEA and will confirm this with the project sponsor. We will prepare interview questions and conduct interviews to confirm our understanding during information gathering as well as understand the attitudes across the organization towards DER. We will capture notes from our interviews and share them with a member of the core team.

Through stakeholder interviews, our knowledge of your IRP, and other JEA documentation and plans, we will capture the current activities and initiatives. This step will also uncover objectives and areas of concern for different parts of the organization as well as differing priorities. We will capture the findings in a presentation to the core team and the larger internal stakeholder group to be provided during the workshop kicking off Task 2.0.

Deliverables: Information Discovery Findings Presentation

Task 2.0: To-Be State Definition

As the information discovery is underway, it is important to understand what role DER could play in JEA's service territory and resource mix as well as ownership models, customer objectives and local and state policy influence. The interview questions included in the sessions held during the Information Discovery phase will also include those targeted toward the future state vision for JEA.

We will facilitate a workshop to review the finding from the Information discovery phase and assemble an initial set of objectives for DER from JEA's perspective. As the readiness assessment is preparation for a larger DER strategy, this will be an initial pass to prioritize and categorize these objectives into: required, preferred, or under evaluation.

The key outcome of the workshop and this task is to reach preliminary alignment on the To-be State to set the target and foundation for the DER Readiness Assessment.

Deliverables: To-be State Presentation

Task 3.0 Governance Framework

The task develops a governance framework to establish the organizational roles, responsibilities, and processes needed to carry out the eventual DER strategic initiatives. This governance element establishes a program management office that facilitates activities to update processes and technology as well as change management actions to needed to address culture and organizational readiness and transition.

We will work with the core team to develop a charter and align on this program management office key actions for issue management and initiative

Task 4.0 DER Readiness Assessment

The DER readiness assessment will assess the against capabilities in the current-state to those identified in the to-be state. We review our exiting DER capabilities framework with the JEA project sponsor and confirm the engagement approach and scope of analysis. The general framework is shown in the figure. The assessment will show each required capability as existing, needs modification, or missing across the people, process, and technology dimensions as appropriate. This will give JEA insight into the maturity of the capability.

- Gap Analysis and Impact Assessment
    - Identify needed capabilities as directionally outlined by the IRP process,
    - Develop timing horizon for needed capabilities,
    - Highlight key business and technology gaps between "*as-is*" and "*should-be*" capabilities, and
    - Perform a DER business impact framework assessment addressing the magnitude of required change management and provide recommendations about needed change management activities. (does this imply organizational resources/hierarchy too?).

Task 5.0 Findings and Recommendations

The Black & Veatch team will summarize the key findings and provide recommendations for next steps as JEA moves toward developing a more detailed DER strategy & roadmap and begins to implement change management initiatives to transition the organization to its new operating future.

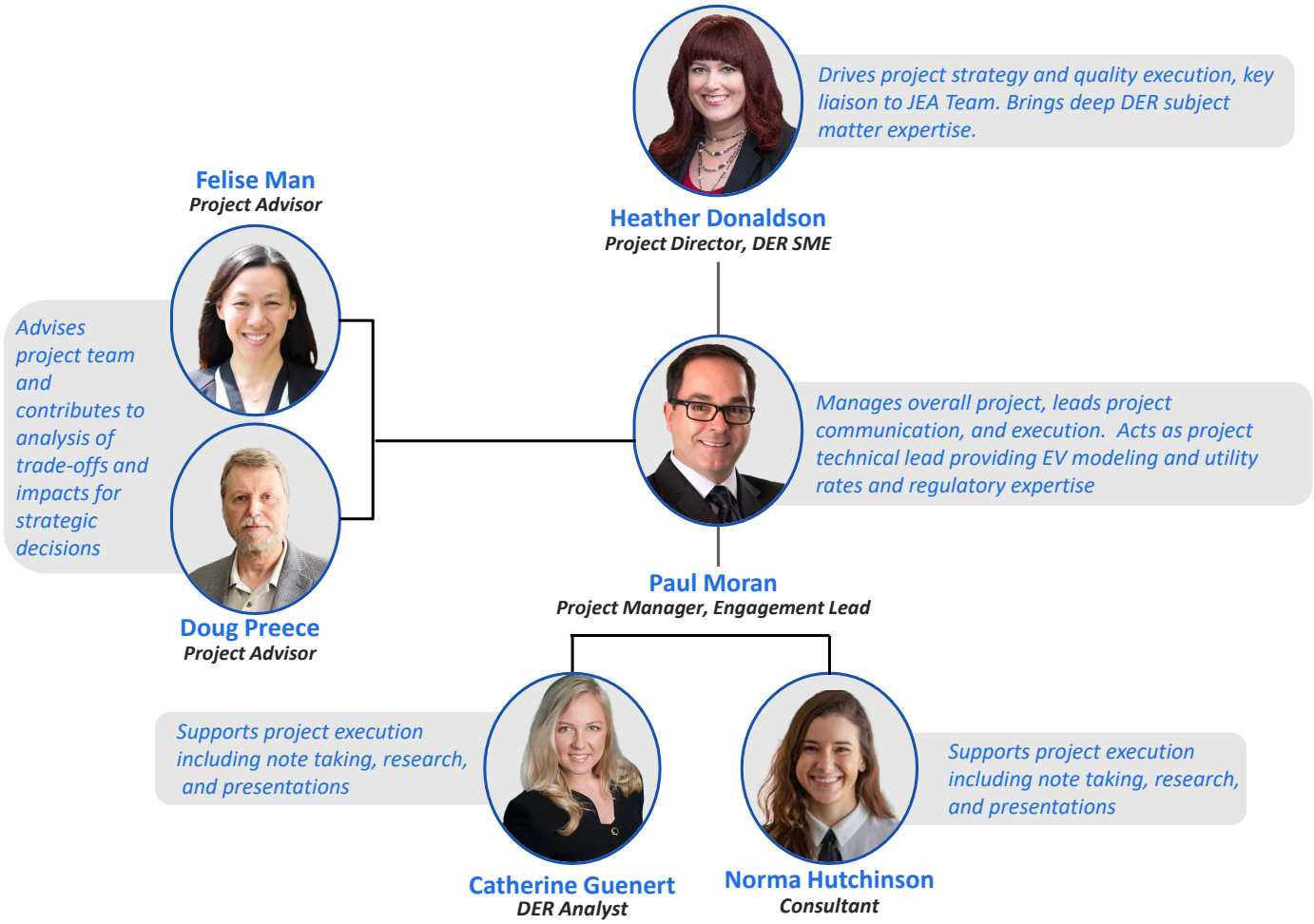
- Roadmap Deliverables
  - Document the aligned vision, goals, timing, dependencies, responsibilities, & evolution milestones for JEA's DER strategy
    - Achieve organizational agreement on DER strategy and strategic framing
    - Capture key activities, tasks, and timelines on a strategic map coordinated with the IRP
    - Identify program dependencies and key checkpoints
    - Communication plan for DER strategy

Team

Black & Veatch brings a team with extensive experience and expertise in all aspects of DER integration. We have included our strategic partner Energeia to provide a broad perspective of DER especially related to DER adoption drivers.

The team will be led by Heather Donaldson who is a 25-year veteran in the electricity industry. Her experience spans electricity industry domains including distributed energy resource integration, grid modernization, wholesale markets, transportation electrification, and distribution and transmission planning. Doug Preece and Felise Man will act as project advisors to the project adding their direct utility experience integrating DER to the analysis.

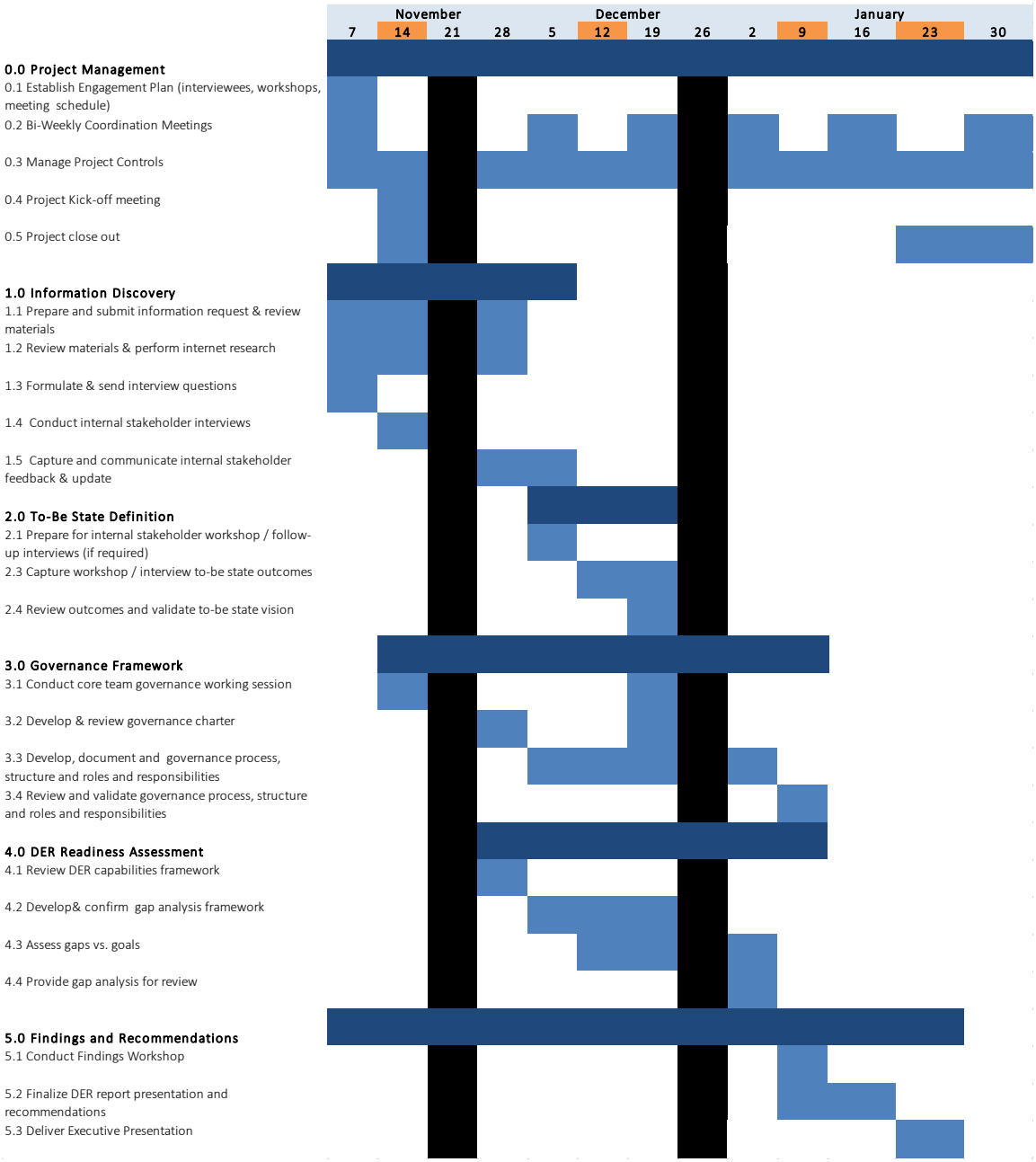
Paul Moran will act as the project manager. Paul brings over 18 years of experience of utility and management consulting expertise. He recently served as project manager for a DER enablement engagement for TVA which explored changes needed to transition toward enabling DERs by identifying capability enhancements in areas of DER and load forecasting; DER integration, analysis, and modeling; and DRP program management and governance.



Proposed Schedule & Pricing

Proposed Schedule

Black & Veatch proposes to deliver this project over a 3-month time period to allow for information gathering, interview and workshop scheduling, and analysis as shown below. During the first week we will establish the engagement plan. We propose the in-person kick-off meeting with the entire team and interviews be conducted week 2 of the project on-site.



Pricing

Black & Veatch will perform this work for a fixed fee of $217,500 excluding expenses. Black & Veatch will invoice at milestones during the project as follows:

Milestone	Timing	Amount
Project Kick-off	Week 1	$21,750
Current State	Week 5	$87,000
Readiness Assessment	Week 8	$87,000
Key Findings and Recommendations	Week 10	$21,750
Total		$217,500

Assumptions

- Payment terms are net 30.
- Data request to JEA stakeholder groups to inform the project will be issued within 2 weeks of the contract signing date and data shall be returned no later than 2 weeks after project kick-off.
- JEA will provide a project manager or project point of contact to support the successful execution of effort, to be successful, JEA stakeholder organizations must provide inputs in a timely and to the best of their ability complete manner.
- JEA project meeting frequency will be every other week.
- On-site work will conform to the JEA and Black & Veatch COVID-19 safety protocols and procedures.
- Work will be performed remotely or at an appropriate JEA facility, except for any project-related activity that Black & Veatch determines would be best performed on Black & Veatch premises to complete its obligations and responsibilities. Such activity will be billable to JEA in the same manner as work performed on JEA premises. JEA reserves the right to request joint activities be provided in a specific location.
- If on-premises work is required for the execution of the project, JEA will provide appropriate workspace necessities for on-site work, such as, but not limited to, ergonomic workstations, network/internet access, telephone, conference rooms with audio visual capabilities, printers, photocopiers, etc.
- Black & Veatch will provide the Services under this SOW during normal business hours, 7:00 AM to 5:00 PM EST Monday through Friday, except for national holidays. If necessary, JEA will provide after-hours access to JEA facilities to Black & Veatch personnel. Out-of-town personnel may work hours other than those defined as normal business hours to accommodate their travel schedules. If travel is required, traveling Black & Veatch staff will typically work four (4) days on-site and one (1) day off-site during a normal five (5) day work week. At critical times on the project, some traveling Black & Veatch staff may be requested to be on-site five (5) days during a given week as jointly agreed to by Black & Veatch and JEA project management.

- The prices of services are quoted exclusive of all state, local, and other sales, use, compensatory, or similar taxes. In the event such taxes and/or charges become applicable to Black & Veatch's Services, JEA shall reimburse Black & Veatch for such applicable taxes.
- Should JEA terminate the Scope of Work for any reason, Black & Veatch will be compensated for all costs incurred and services performed up until the date of termination, regardless of Milestone completion.
- Black & Veatch deliverable documents will be in Microsoft Office, including MS-Word, PowerPoint, Excel, MS-Project, Visio, and Acrobat Portable Document Format (PDF).
- Black & Veatch will not offer any legal advice or opinions; JEA should look to their attorneys for such advice or opinions.
- All changes to the Scope of Work in this proposal will be administered through standard change control processes and documents as included in the agreement.

Our Qualifications

BLACK & VEATCH QUALIFICATIONS

Black & Veatch brings a unique set of qualifications and capabilities to JEA. We have been providing services to numerous utility customers in support of their DER integration and distribution grid planning. Below are several examples of this work.

Duke Energy Indiana

TDSIC 2.0 Investment Plan Development and Regulatory Support

Situation

- The goal was to achieve target grid reliability, resiliency, and system modernization objectives consistent with internal and Indiana's grid performance objectives, tied to accepted reliability metrics and performance criteria. BVMC developed a Cost Benefit Analysis ("CBA") ranking and optimization of recommended T&D investments for the period 2023 thru 2027 under an investment program across the DEI system.

Current

CLIENT REFERENCE
Andrew Wells
Assoc Gen Counsel
+1 317-503-0672
Andrew.wells@duke-energy.com

Our Contribution

- Black & Veatch developed Duke's TDSIC 2.0 Grid Investment Plan and supported the Regulatory Filing. Both written and oral testimony supporting the investment plan were provided by Black & Veatch expert witness. The team utilized a robust best practice asset risk scoring method backed by Black & Veatch's Risk Assessed Prioritized Planning tool. A Benefit Cost Analysis (BCA) was completed on the entire portfolio of projects. A BCA ranking at the projects and programs level was completed utilizing the Copperleaf Investment Planning tool to produce an optimized ranking of investments across the full scope of DEI's T&D electric system.

Client Outcomes

- The Duke Energy $2B Investment Plan was unanimously approved by the Indiana Utility Regulatory Commission in its entirety with no disallowances. The order stated, "The Commission finds the overall modeling prepared for Duke Energy Indiana's proposed TDSIC 2.0 Plan, along with the testimony of Petitioner's witness, has provided the Commission with sufficient information from which to determine the estimated cost of the eligible improvements in this Plan are justified by the incremental benefits attributable to the TDSIC 2.0"

Commonwealth Edison

Performance Metric – Benefit Cost Analysis Methodology

2022

CLIENT REFERENCE
Emma Salustro
Assoc Gen Counsel
+1 779-231-1004
Emma.Salustro@ComEd.com

Situation

- During the ComEd performance metric filling under Illinois Commerce Commission (ICC) Docket 22-0067 intervening parties raised questions around cost effectiveness. The proposed performance metrics categories included reliability and resilience, peak load reduction, supplier diversity, affordability, DER interconnections, and customer service. Some intervening parties suggested that the ICC should not approve performance metric until ComEd presented a cost benefit analysis.

Our Contribution

- Black & Veatch was engaged to provide a cost benefit analysis methodology for the ICC to adopt and employ in its evaluation of ComEd proposed performance metrics. Black & Veatch reviewed the performance metric with the ComEd metric owners and developed a cost benefit analysis methodology for the 8 proposed performance metrics. For each of the performance metrics, as allowed by the statute, both customer and societal benefits were identified. Black & Veatch identified specific customer and societal benefits and organized them under each of the proposed performance metrics. Black & Veatch provided written testimony supporting our cost benefit analysis methodology for the filing.

Client Outcomes

- Our analysis concluded that the 8-performance metric would provide significant benefits and should be approved by the ICC. The ICC Docket 22-0067 is still being processed with an order expected in the fall of 2022.

Duke Energy Indiana

TDSIC 2.0 Investment Plan Development and Regulatory Support

Current

CLIENT REFERENCE
Andrew Wells
Assoc Gen Counsel
+1 317-503-0672
Andrew.wells@duke-energy.com

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Consumers Energy

Grid Modernization Roadmap Case Study

2019-20

CLIENT REFERENCE

Mark Ortiz
Grid Modernization Manager
+1 517-581-1019
Mark.Ortiz@cmsenergy.com

Situation

- Consumers Energy engaged Black & Veatch to assist with the refinement and development of their Grid Modernization Roadmap, looking 2, 5, and 10 years into the future. This roadmap ensured that future investment plans can build on the strong foundation today, leverage the industry technology advancements, and produced each year.

Our Contribution

- Black & Veatch began the engagement with interviews to understand challenges and identify gaps. This effort produced the ten key findings that would underpin the remainder of the engagement and feed into the creation of the twenty-two initiatives. Black & Veatch facilitated future capabilities and value workshop to leveraging its grid modernization reference model to identify timing and priorities for all capabilities. We mapped needed capabilities to each sub-function in the reference model that resulted in the initiatives. The roadmap initiatives were then broken down into key sub-initiatives and assigned a timeframe to be completed based on Consumers Energy's future strategy and dependencies on other initiatives and sub-initiatives.
- A cost/benefit framework was built to support investment decisions associated with the initiatives and sub-initiatives. This framework incorporated the initiatives and sub-initiatives developed for the roadmap and provides a means to justify related investments by comparing the stream of costs and benefits incurred and produced each year.

Client Outcomes

- Outputs will support upcoming MPUC filings. Additionally, the project identified key dependencies and improved alignment between initiatives.

San Diego Gas & Electric (SDG&E)

DER Impact and DSO Strategy

2018-19

CLIENT REFERENCE
Jamie Exon
Director of Digital Acceleration
+1 858-776-8813
Wexon@sdge.com

Situation

- SDG&E wanted to understand the impact the increasing penetration of Distributed Energy. Resources (DER) would have on its business. Additionally SDG&E wanted to determine what role as the Distribution System Operator (DSO) it would like to take in the emerging. Distribution Markets and Operations ecosystem.

Our Contribution

- Black & Veatch assessed the impact of DER on SDG&E's business areas including: Planning, Operations, Procurement, Customer, Markets, and DER ownership. We produced a gap analysis highlighting focus areas related to process, people, policy, and technology.
- We presented several possible models for SDG&E to act as the DSO including defining needed roles for distribution grid operations, operational forecasting, distribution market operations, DER coordinator, etc. We identified capabilities SDG&E would need to perform the various DSO and worked through the associated trade-offs with taking on the various DSO roles and associated financial impacts.

Client Outcomes

- The DSO strategic roadmap put forth several initiatives including grid operations readiness, recommended policy actions and other areas to guide SDG&E to integrate more fully DER and its transition to its preferred role as the DSO.

Salt River Project

Consulting Services for Integrated System Planning

2019-20

CLIENT REFERENCE
Angie Bond-Simpson
Manager, Integrated System Planning & Support
+1 602-236-2082
Angie.Bond-Simpson@srpnet.com

Situation

- In 2017-2018 SRP executed an integrated resource plan, with three overarching objectives: create a plan to grow SRP's energy generation for the next five years, continue to keep costs affordable for its customers, and incorporate sustainability goals. Recent transformations to the electric industry have resulted in a need to evolve traditional planning methods. As a result, SRP sought solutions to support the integration of its planning processes underlying its resource and infrastructure investment decisions.

Our Contribution

- Black & Veatch developed a gap assessment, strategic roadmap, and to-be integrated system planning processes to help integrate the planning functions currently provided by forecasting, transmission, distribution, generation, and customer programs, guided by industry best practices. The processes developed to enable integrated planning allowed for collaboration across key planning areas to ensure decisions made are led by strategy and incorporate the evolving landscape of technology and customer expectations. We provided guidance for an ISP

organization to support and steward the new processes as well as establishing an initial internal communications plan tied to the process.

Client Outcomes

- The project enabled SRP to transition from a traditional Integrated Resource Planning approach to a collaborative organizational structure with systematic processes to approach their special studies and the next Integrated System Plan.

Public Service Electric & Gas Company (PSE&G)

Consulting Services for Grid Modernization Plan – Energy Strong II Program

2018-2019

CLIENT REFERENCE
Edward F. Gray
Director of Transmission and Distribution Engineering
+1 973-297-2128
Angie.Bond-Simpson@srpnet.com

Situation

- In early 2013, PSE&G proposed to its utility regulator a comprehensive plan to modernize its electric and gas distribution grids (its Energy Strong Program) in response to several unprecedented weather events, including Hurricane Irene, an October 2011 snowstorm, and Superstorm Sandy. As a follow-up to this initiative, PSE&G proposed in 2018 a second grid modernization plan (Energy Strong II) which built upon its Energy Strong Program.

Our Contribution

- Black & Veatch supported PSE&G in the creation of its Energy Strong II electric and gas grid improvement plans submitted to the New Jersey Board of Public Utilities (NJBPU). The electric and gas plans reflected PSE&G's requests for cost recovery approval of over $2.5 billion of new capital program funds to strengthen PSE&G's distribution system delivery network. As key parts of our project, we conducted a comprehensive cost-benefit analysis (CBA) and provided expert testimony and served as PSE&G's expert witness on the CBA in support of its infrastructure investment plans.

Client Outcomes

- PSE&G was successful in reaching a settlement with the other parties which resulted in a significant portion of the utility's electric distribution program being approved by the NJBPU.

Tennessee Valley Authority

Distributed Resource Planning Roadmap

2018-2019

CLIENT REFERENCE
Gary Brinkworth
Director of Enterprise Research & Technology Innovation
gsbrinkworth@tva.gov

Situation

- TVA supports a Study Group of Local Power Companies (LPCs) to examine the transition process that will prepare the Valley to integrate a future distributed and diverse energy portfolio. The project focused on preparing for a more holistic IRP process, specifically related to A) forecasting consumption, B) DER adoption/prediction, C) scenario planning and uncertainty, and D) holistic distribution system planning.

Our Contribution

- Black & Veatch's role was to provide consulting services and workshops for DER Adoption/Prediction, Scenario Planning, and local Net Load forecasting as well as contributing to the roadmap for holistic distribution system planning. Black & Veatch also conducted studies for

DER potential/penetration and distribution system impacts for individual LPCs. These studies include feeder level analysis of DER potential/penetration and forecasted impact to the feeder/substation. The analysis then tested mitigation strategies to address issues that may arise with high DER penetration.

2015-2016

CLIENT REFERENCE
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Manager, Distributed Energy Strategy
+1 916-732-6835
Obadiah.Bartholomy@smud.org

Client Outcomes

- The project developed a roadmap of activities to address the identified gaps and execute initial steps on the roadmap by conducting preliminary modeling exercises to further refine the future process improvements, data sharing and tool development activities.

Sacramento Municipal **Utility District (SMUD)**

Integrated Distributed Energy Resource Analysis

Situation

- SMUD retained Black & Veatch to develop a likely portfolio of DERs to characterize SMUD's future resource, business, and customer needs. The analysis included the amount, type, and location on feeders of DERs over a 5 to 20-year planning horizon.

Our Contribution

- Black & Veatch 1) compiled multiple DER-by-type penetration scenarios developed by SMUD and its consultants into a comprehensive portfolio, 2) supervised distribution power-flow analytics with GRIDiant/Landis & Gyr analytics on top of SynerGEE feeder models to assess the impact of the DER on bulk power; 3) guided PLEXOS production costing to assess the impact of DER on bulk power; and 4) determined the overall DER value to SMUD in terms of costs, benefits, and future planning and operations.

Client Outcomes

- This project helped SMUD ensure all these resources are considered in an integrated fashion to avoid siloed deployment approaches which may result in suboptimal, inconsistent, or overlapping treatment of these resources.

San Diego Gas & Electric (SDG&E)

Decarbonization Roadmap Case Study

2022

CLIENT REFERENCE
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Situation

- SDG&E engaged Black & Veatch to work with Boston Consulting Group and University of California San Diego Professor David Victor to develop a reliable and affordable decarbonization roadmap for California.

Our Contribution

- Black & Veatch performed decarbonization-related modeling to understand the cost-optimal mixture of technologies needed to satisfy California's increasing energy demand while meeting decarbonization targets. This assessment included demand-side modeling which projected

energy demand over the next several decades and supply-side modeling. The unique modeling approach included a rigorous power system modeling exercise to ensure full grid reliability.

- The three-part study informed a plan for upgrades and development to the state's infrastructure. This plan was tested against the North American Electric Reliability Corporation's stringed industry reliability standard which deems an electric system reliable only if it experiences one power outage every 10 years.

Client Outcomes

- The decarbonization roadmap will support SDG&E and California with the energy transition on the path to achieving 100% zero-carbon energy by 2045.

Application of Study

- Based on the study, Black & Veatch helped create a decarbonization roadmap that provides a viable pathway for both SDG&E and California to meet the state's decarbonization goals while ensuring electric system reliability and affordability.

Appendix A Distribution Grid Planning and DER Integration Experience

Black & Veatch brings deep, relevant Integrated Distribution Planning experience as we have supported numerous IOUs and other utilities on their distribution planning and grid modernization efforts. Through this work, Black & Veatch understands the process of evaluating DER integration.

DIRECT GRID PLAN EXPERIENCE

Black & Veatch has been assisting clients to understand the implications of increased DER and EV penetrations over the last decade - performing all aspects of integrated distribution planning. We have grown our expertise through additional industry expert hires as the complexities in distribution planning and operations have grown.

Utilities need to develop several capabilities to plan for DER implementation, support its customers, and reliably operate the distribution system. The Grid Plan framework needs to enable these capabilities. We list those capabilities here.

Planning

- Maintain reliable service notwithstanding the deployment of DERs.
- Model demand growth including EV and customer energy management solutions including smart homes and buildings.
- Forecast load and DER hourly by the distribution circuit.
- Implement new IEEE 1547-2018 standards to gain additional DER operating capabilities and ensure safety.
- Incorporate strategically located smart inverters into grid planning.
- Ensure the distribution grid is upgraded to handle the dynamic, decentralized, and bi-directional nature of evolving grid technology.
- Demonstrate whether costs can be minimized by combining grid modernization plans with capacity upgrades.
- Evaluate non-wires solutions with traditional solutions to resolve planning criteria violations.
- pilot non-wires solutions program and develop a method for valuing non-wires and non-pipeline solutions.
- prioritize grid upgrades where they are most needed to accommodate anticipated electrification.

Customer

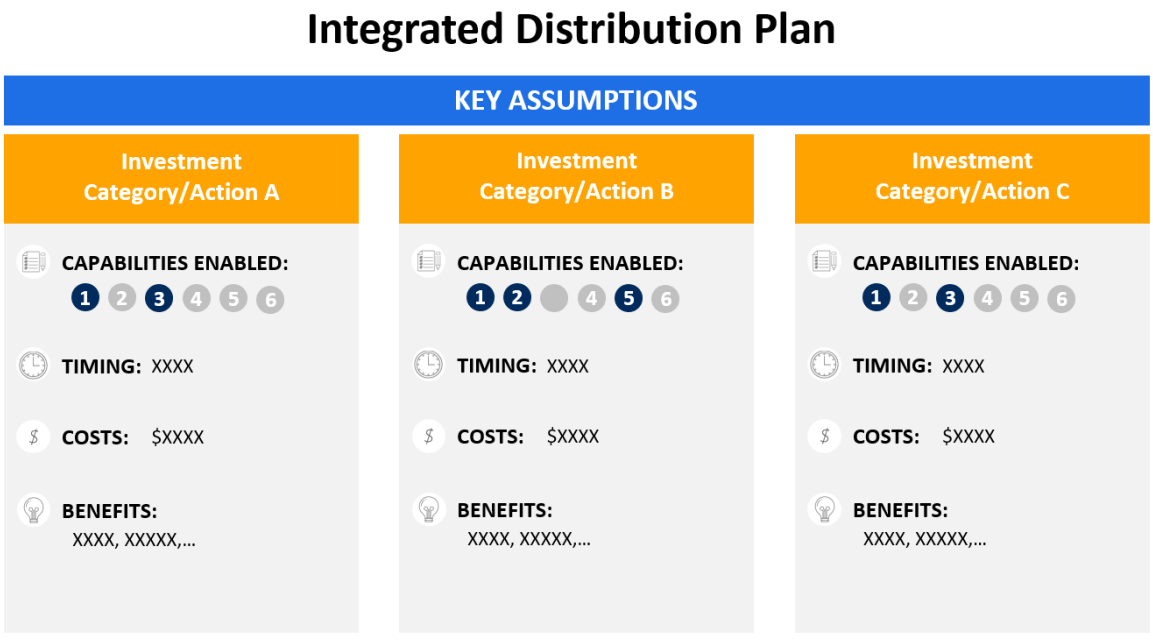
- Support full electrification of various systems such as gas, trucks, buses, etc.
- Modernize interconnection rules to allow DER including solar and battery storage facilities to interconnect more easily.
- Send transparent price signals encouraging the development of DERs where they can provide the most value.
- Inform about optimal locations to site energy storage.

- Allow behind-the-meter solar photovoltaic (PV) to power critical home loads during a grid outage, improving resilience for customers.
- Propose and adopt tariffs and other platforms that encourage non-wires solutions using private sector investment.
- Evaluate options to facilitate a market for DERs.

Grid Operations

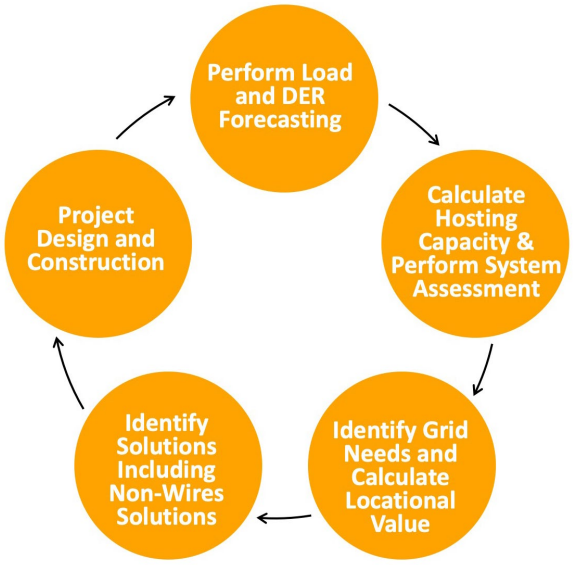
- Accommodate two-way power flows and implement the transactive, high renewable-penetration grid.
- Adopt new software and operational guidelines to manage power flow and provide DER visibility.
- Incorporate hardware and software upgrades necessary to implement smart meters and an Advanced Distribution Management System
- Perform short-term operational forecasting and planning to recognize and utilize DER to plan and respond to outages.

With our understanding of distribution planning evolution, its objectives and needed capabilities, Black & Veatch developed a **Grid Plan conceptual layout** simplified and shown below. The Grid Plan must outline and justify the grid reinforcements, technology, and other investments, and actions to develop needed capabilities to fulfill the objectives for the Grid Plan.



Shifting from the framework to the **Grid Plan Process** captured generally in the figure below, Black & Veatch has the experience and expertise to support JEA develop its Grid Plan. We understand the need to evolve distribution planning to be more integrated to maintain reliability, support customer choice and play an important role in achieving energy and environmental goals. The outcome of the Grid Plan process results in a roadmap of investments and actions needed to support the goals. In general, distribution planning needs to evolve to accommodate supply connected to the distribution system, a variety of customer technology choices for self-supply and energy management, energy storage, and

General Distribution Planning Process



significant electric vehicle demand. Distribution planning inputs change significantly especially related to forecasting. Distribution system analysis becomes more complex and granular in time and location, however, the objective functions to avoid thermal overloads, maintain voltage within thresholds, and ensure safety through system protection measures remain the same. The projects and solutions that can be used to address planning criteria violations and alleviate system constraints are much broader. These non-wires solutions include DER and customer solutions in addition to traditional utility projects. In addition, there is an opportunity to provide additional information to promote adoption and optimize locating DER. This information includes hosting capacity that indicates the ability to add load and DER with little or no additional distribution upgrades and locational net benefits highlighting areas on the distribution system of the most value for siting DERs.

Perform Load and DER Forecasting

The objective of forecasting load and DER is to generate both locational and temporal forecasts (typically by circuit by the hour) that can be used to support distribution system power flow and other analysis. The elements that need forecasting include but are not limited to:

- Consumption/load forecast;
- DER forecast individually or as a system if coupled with another technology (e.g. solar and storage installations, microgrid installations, etc.) including adoption and production and in the case of energy storage, load;
- Electric vehicles adoption forecasts and associated load (requires an understanding of charging models;
- New business load;
- Energy efficiency and demand response resulting from commercial, industrial, and residential customer segments; and impacts of customer program measures, time-varying and other electric rates, and building codes and standards; and
- Load forecast due to electrification of gas heating systems, and other electrification measures.

Before performing forecasting, it is imperative to gather input data and agree on assumptions. The key inputs for this step include gathering historical load data, types, location, and operation data of existing DER on the system, anticipated EV charging patterns, major account information for existing and new business customers, customer program historical performance, etc.

With increased penetration of customer-sided DERs, utility-led customer programs and rate designs, and organic energy efficiency measures, forecasting processes are growing in complexity. These complexities will require advanced computing tools to forecast the magnitude of impact and location of impact, which may draw on propensity models. This evolving landscape will also require increased collaboration

between forecasting and distribution planning groups to reconcile the top-down forecasts against the bottom-up load allocations.

AMI data is critical to characterize historical load more accurately and DER. Especially in terms of load shape and dispersion across the system. Specifically, highly granular time-synchronized load profile data from all metering endpoints and critical bellwether control points provide the needed insights into grid performance, capacity, and load flow constraints, and enables more accurate forecasting of time-sensitive load and DER impacts. Meter data from existing DERs is also important for understanding DER operations. This enables the identification of grid optimization points for additional DG and exposure points for additional EV and other new loads. Advanced data analytics, built on AMI data, other grid sensor data, and weather correlation provides insights for distribution management to manage grid operations more effectively, grid DER load and supply variations, and energy/demand forecasting. There are several different tools used to support the various aspects of forecasting. Many clients developed internal tools. Several vendors are beginning to offer additional functionality to support distribution planning.

Black & Veatch Experience

Black & Veatch has supported several clients with various aspects of its forecasting process. For example, Sacramento Municipal Utility District (SMUD) engaged Black & Veatch to perform an integrated DER analysis which consolidates past SMUD DER estimates, develops new estimates and customer adoption location projections, and models impacts on the bulk and distribution systems. The study looked at distributed solar PV, energy efficiency, demand response (dispatchable and non-dispatchable), combined heat and power, electric vehicles, and energy storage. Black & Veatch was able to develop a comprehensive picture of SMUD's distributed energy future through bulk system production cost modeling, distribution circuit level, economic analysis, and advanced dispersion analysis to forecast locations and levels of future DER penetration. The study results provided insight into the impact on retail sales, peak load, carbon emissions, revenue, and future renewable procurement needs. For the distribution level analysis, the DERs of greatest impact were identified by quantifying system costs and benefits.

During the SRP Integrated System Planning project, Black & Veatch carried out a series of workshops and reviewed SRPs forecasting assumptions, methodology, and technologies to map out current forecasting processes and assess gaps that exist to better position the organization for the future grid landscape. In addition, Black & Veatch identified the areas in which forecasting processes may be streamlined, reduce redundancies, and allow for better collaboration and application of forecasting results for resource and grid planning departments.

Black & Veatch developed econometric-driven peak load and energy sales by class forecasts for United Illuminating Company (UI). Black & Veatch performed a multi-year weather normalization analysis of UI's summer peaks and energy sales. The model utilized weather-normalized kWh sales by the class forecast. The sales forecast was converted to a system peak forecast using UI-specific class-level load factor forecasts. Black & Veatch developed three specific scenarios:

- UI Substation Planning Scenario A – project a substation-level peak load forecast to support UI substation capacity planning.

- ISO-NE Regional Planning Scenario B - project a substation-level forecast comparable to assumptions used in the ISO-NE CELT peak load forecast.
- Connecticut Siting Council Planning Scenario C –used for the annual UI submittal in the forecast of loads and resources to the Connecticut Siting Council.

Forecasting & Planning Assumption Challenges

The forecast is foundational to providing the best picture of investments needed to achieve the state's goals. The Grid Plan will include the methods, data sources and models used to develop the various component of the forecast. Because of this, many stakeholders are included when determining some key forecasting inputs. These stakeholders represent various interests desiring specific outcomes.

Two key considerations include the specific inputs and assumptions that are subject to stakeholder negotiation and the number of scenarios that should be studied. Historically, there has been little to no stakeholder involvement in distribution planning. This creates challenges for the utility to not only get its investments approved but to also educate a non-engineering stakeholder group on the critical aspects of distribution planning to ensure safety and reliability. It will be important for JEA to educate its stakeholder community in addition to advocating for investments and actions. If possible, it would be important for JEA to establish a set of assumptions that make the most sense to involved stakeholders and those that shouldn't and why. This can go a long way to focus the stakeholder effort on those parameters where they can most effectively provide input.

The second consideration related to the number of scenarios and studies to be completed has a direct bearing on the extent of analysis and variation in investments over time. Because planning results in a deterministic set of investments, there will need to be agreement and/or direction from the commission if multiple scenarios are investigated, which one form the basis for the investments and roadmap for the Grid Plan.

Calculate Hosting Capacity & Perform System Assessment

Hosting capacity analysis provides a characterization of the ability of the current distribution system to integrate both additional DER and load. The analysis requires extensive circuit-by-circuit modeling of the existing distribution system including all equipment and resources. Iterative simulations for different seasons, months and even every hour must be run to determine the limits of each circuit. These simulations must be executed at a node or segment level to understand how much and what types of DER could be added with little or no distribution upgrades.

The modeling performed for the hosting capacity study provides a foundation for the system assessment to meet the forecasted load, DER, and EVs. This distribution planning study effort identifies distribution grid upgrades needed to handle the dynamic, decentralized, and bi-directional nature of the evolving grid. The primary objective of the system assessment is to understand the impact of EVs, DERs, storage, and load growth on distribution system reliability.

Black & Veatch Experience

Black & Veatch brings its experience in performing distribution system power flow analysis to support both hosting capacity calculations and system assessments using both the CYME and Synergi electric simulation software models. Black & Veatch performed distributed generation hosting capacity analysis for feeders in the Cedar Rapids area for Alliant. The study used stochastic analysis and identified the

maximum amount of distributed generation that can be accommodated in a feeder without exceeding voltage or thermal limits. Black & Veatch has also performed this analysis in LADWP and VIWAPA territories.

Black & Veatch performed extensive system impact distribution feeder analysis for SMUD in its integrated DER analysis mentioned in the prior section. We recently performed a Distributed Resource Planning project for TVA and its Local Power Companies. Black & Veatch conducted studies for DER potential/penetration and distribution system impacts for individual LPCs. These studies included feeder level analysis of DER potential/penetration and forecasted impact to the feeder/substation. The analysis then tested mitigation strategies to address issues that may arise with high DER penetration. Black & Veatch supported distribution feeder analysis for other utilities including Alliant, Arizona Public Service Company and LADWP.

Often, utilities will seek to investigate modifications to increase hosting existing hosting capacity. Black & Veatch worked with utilities including LADWP to identify potential conventional and advanced upgrades that could increase hosting capacity. These methods included modifying voltage regulator settings, downstream regulators, changes to the interconnection screening process, and performing additional voltage regulation with smart inverters.

Hosting Capacity Challenges

Hosting capacity can be an important tool for developers and customers to get a sense of whether there will be costs associated with interconnecting DER in a particular area. Hosting capacity can be an important tool for customers and DER developers to get a sense of whether there will be costs associated with interconnecting DER in an area. While this can be important information, hosting capacity analysis is costly to develop and maintain. Each time a new DER comes on-line or is decommissioned, and when utility construction projects are completed, hosting capacity needs to be recalculated to be accurate. Additionally, some utilities have found that it is rarely used by those seeking to site DERs and instead prefer initial studies as part of the interconnection process.

Another key consideration is the use of hosting capacity to streamline interconnection. While the analysis does give an initial indication of the possible capacity, not every aspect involved in an interconnection study has been included to date as part of the hosting capacity analysis. Depending on the type of DER and whether it is being interconnected with multiple technologies, additional studies to ensure safety and reliability need to be done. One example is short-circuited duty analysis.

If possible JEA should encourage the commission to perform a cost/benefit analysis before mandating hosting capacity analysis and if performed work to set expectations about the appropriate use cases.

Identify Grid Needs and Calculate Locational Value

In this step, the observed criteria violations need to be characterized as grid needs. This involves reviewing the specific occasions when the violations occurred and for how long. The grid needs can then be expressed by location, quantity, time, number of occurrences, etc. Additionally, this step also includes determining where on the distribution system DER or traditional assets could provide the greatest value. This information is used to support the next step to identify the solution including non-wires solutions that defer or displace traditional distribution investments.

Black & Veatch Experience

The characterization of grid needs is done when the utility seeks to apply a solution that may have limited availability or other operational constraints. Black & Veatch performed a project for Arizona Public Service to determine whether energy storage could meet the grid needs, specifically voltage control and thermal loading on selected feeders using energy storage. As part of this project, Black & Veatch analyzed four feeders selected by APS as candidates for the IFES pilot. The feeders were selected based on the availability of storage siting locations, observed voltage violations in historic AMI data and large amounts of future distributed solar photovoltaic (PV) deployments. Black & Veatch performed a model validation without storage to replicate observed voltage violations on the feeders and characterize the grid need. Energy storage was then modeled to demonstrate the capability of storage to meet the grid need to manage both demands at the substation and maintain the voltage within ANSI standard limits to mitigate observed voltage violations.

Grid Need, DER Challenges

It is important to accurately characterize the grid needs to guide the selection of the best, most cost-effective solution to apply to address the observed violation. One important aspect of characterizing the grid need is to ensure all the use cases are considered to determine the specific operational parameters and constraints required. By identifying the use cases as part of the grid needs assessment, JEA can give more accurate guidance when selecting alternatives. These use cases are critical to a stacked benefits analysis to ensure the resources can perform all the use cases when determining costs and benefits in the next step.

DER locational net benefits analysis provides a relative indication of where benefits are higher or lower across the system. Because the actual benefit amount depends on the specific use cases the DER will be satisfying and the ability to stack those benefits, it will be important to provide the context of the use case assumptions.

Identify Solutions Including Non-Wires Solutions

Traditional solution development has generally occurred within individual planning departments. Teams leverage corporate forecasts to plan the least-cost system upgrades with limited inter-departmental collaboration and insights from customer behavior.

The Grid Plan provides an opportunity to shift to an integrated approach to grid planning. An integrated approach enables consideration of innovative, alternative non-wire solutions to defer traditional investments. These solutions could include targeted customer programs, rates that drive consumption behavior, storage, EV and DER initiatives, and conservation voltage reduction (CVR) and Volt/Var Optimization (VVO).

Several utilities have explored partnerships and market-based approaches to assist in alternative solution identification. The combination of alternatives to supplement traditional solutions may provide for cost optimization, higher net benefits, increased customer engagement and opportunities to deploy DERs to meet the New Jersey EMP objectives.

Black & Veatch Experience

Black & Veatch has deep experience in the planning, design, and construction management of traditional and alternative solutions to address grid needs. One example is the recent integrated DER analysis work that Black & Veatch completed for the Sacramento Municipal Utility District. In this project, Black & Veatch investigated DER impacts by consolidated past DER estimates, developing new estimates and customer adoption location projections, and modeling DER impacts on the bulk and distribution systems. Technologies reviewed included distributed solar PV, energy efficiency, demand response, combined heat and power, electric vehicles, and battery storage. Black & Veatch also provided consulting support to the Tennessee Valley Authority in their efforts to develop a more holistic IRP and DRP in the future. Black & Veatch conducted DER and local net load forecasting analyses and scenario planning, including feeder level analysis of DER, forecasted impacts, and mitigation strategies.

Non-wire Alternative Challenges

Given the limited experience of non-wires solution effectiveness and efficiency coupled with the uncertainty of customer behavior, a careful and systematic approach to the design of alternative solutions with an emphasis on testing is critical for successful deployment.

JEA needs to consider different elements when designing a non-wires solution. For example, JEA planners need to ensure there is enough lead time needed to procure and implement the solution prior to timing of the grid need. Another important consideration will be the ability of the utility to pursue a different solution whether a traditional solution or another alternative if the selected alternative does not materialize as anticipated. As mentioned in the previous section, the specific use cases identified when assessing the grid need will drive the cost benefit evaluation. The use cases need to be reviewed to confirm that the solution can perform all the needed functions and receive the associated value.

Project Design and Construction

Ultimately, the investments identified as part of the Grid Plan will need to be executed upon. Our Management Consulting teams focus on strategy and business optimization, and once the right strategy is determined, any engineering, procurement, and construction (EPC) work can be performed by Black & Veatch or with JEA's preferred partner. Because Black & Veatch can deliver any power generation technology (e.g. solar PV, battery energy storage, natural gas or diesel fueled engines, combustion turbines, combined heat and power, optimized microgrids consisting of multiple generational technology) we have a unique EPC perspective that is infused into our solutions.

Black & Veatch Experience

Black & Veatch has deep, extensive experience in the planning, design, and construction management of traditional and alternative solutions to address grid needs. We include just a handful of our many EPC DER projects as examples.

Black & Veatch developed a 30% design package for a microgrid at a confidential community facility. The microgrid will include solar PV (311 kW), battery energy storage (1,520 kWh), microgrid controls, and balance-of-plant. System functionality includes: backup to critical facility operations, Support expansion and addition of microgrid components. The solar PV will be used to export power to the grid and supplement the BESS during island operation.

Black & Veatch is performing conceptual engineering and design for the Philadelphia Electric Company (JEA) Berwyn Service Center microgrid using a staged approach to development with minimal investment until the project is proven viable. The microgrid comprises one 500 kW building microgrid and one 2 MW campus microgrid with natural gas generation, solar PV, and battery energy storage showcasing new technologies, programs and processes while also providing an enhanced level of resiliency.

The Tesla stationary storage project entails engineering, site acquisition, project management, procurement, and construction of more than 45 battery storage facilities at various locations throughout California. Facilities include corporate, commercial, educational, and institutional. Battery storage is a behind-the-meter system used to reduce monthly electric demand charges. The batteries charge at night during off-peak hours and are utilized during peak hours of the day. The batteries can also serve as a backup power supply to the facility where they are located.

Black & Veatch provided conceptual design and EPC cost estimating services for a lithium-ion battery energy storage system. The 5 MW/20 MWh project is intended to provide grid support services and backup power for local infrastructure. Two design options were considered, each assuming a different Tier 1 battery supplier. The findings of this study were used by the client to select the preferred battery OEM and to obtain approvals from local regulators.

Since introducing renewables to its generating fleet, Jamaica Public Service observed an increased instance of under-frequency load shed events. The Client sought an independent assessment of the amount of energy storage required to mitigate frequency events with the present and planned future renewables penetration.

Black & Veatch has been working to support Advanced Microgrid Solutions (AMS) in engineering and construction services associated with their commitment to provide Southern California Edison with 50 megawatts of behind-the-meter battery storage capacity in the Western Los Angeles Basin area.

Project Design and Construction Challenges

Related to the Grid Plan, a key consideration as it relates to project design and construction is that the schedule to bring a project on-line include time for interconnection, siting and permitting, and other processes required before the facility can be granted permission to operate. With DER serving to defer or displace distribution infrastructure, there is increased pressure to ensure projects come on-line in time to meet the grid need it is being designed for. This is more important for DER than transmission interconnected systems as these installations are typically much smaller and take much less time to construct.

Monitor and Control DER and Distribution System

As the penetration of energy supply and storage DER assets on the distribution network increases, the need to have adequate levels of operational situational awareness also increases. Each circuit has a tipping point of DER penetration at which power flow becomes bi-directional, system protection schemes must be dynamic, and voltage stability can be difficult to maintain. Battery storage, on the system or behind the meter, requires careful management of charge and discharge cycles. The intermittency of renewable resources coupled with the large coincident peak loads brought on by the electrification of transportation requires the capability to shape the demand to match the available supply. Given the risks

of these scenarios, the distribution system must be designed, monitored, and managed differently compared to the recent past.

The planning and design functions are afforded new flexibilities and options by the same technologies also instigating the need for change. System reinforcement can now potentially be in the form of a DER supply or storage assets instead of a new substation. The supply disaggregation enables the design for islanding to improve system resiliency. Today, these are often oy a pilot projects or a proof-of-concept. However, as DER penetration increases, having the capability to apply these options and flexibilities along with the enabling monitoring and management technologies will be required.

The technology platform, which combines line sensors and devices, the data they generate, and numerous control and management systems, must be architected to align with and enable the business capabilities needed over time. The key components include:

- Line sensors, either discrete or intrinsic to line devices
- Controllable devices such as capacitor banks, voltage regulators, load tap changers, reclosers, switches, and breakers
- A secure, robust, resilient, flexible, and eventually pervasive data communications network with adequate latency, bandwidth, and throughput characteristics
- Systems and applications to consume, analyze, and present data to personnel, and enable action such as:
    - D-SCADA – Distribution SCADA
    - FLISR – Fault Location, Isolation, and Restoration
    - CVR – Conservation Voltage Reduction
    - SOM – Switch Order Management
    - STP – Short Term Planning
    - DERMS – Distributed Energy Resource Management System
    - Systems to supply and manage physical asset data, such as EAM and GIS
    - DMS – Distribution Management System
    - VVO – Volt VAR Optimization
    - OMS – Outage Management System
    - DPF – Distribution Power Flow
    - DRMS – Demand Response Management System
    - ADMS – Advanced Distribution Management System
    - Integrations to share an as-designed and as-operated delivery network model including the status of DER assets

Black & Veatch Experience

Black & Veatch has significant experience architecting, engineering, implementing, constructing, deploying, testing, and even operating the infrastructure, and systems listed above. We offer selected Black & Veatch experiences in the following paragraphs.

Consumers Energy engaged Black & Veatch to develop a broad-based distribution modernization roadmap to enable their transformation to a DSO business model. The engagement included the identification of capability gaps using the Black & Veatch reference model, providing guidance on the DSO business model development, the development of structured initiatives to enable new capabilities and close gaps with present business capabilities along with the development of an enabling technology grid services platform architecture.

Black & Veatch is assisting CPS Energy in managing its five-year Grid Optimization initiative which is the largest technology and infrastructure project it has ever undertaken. CPS Energy is leveraging its previous and on-going investments in Distribution Automation (DA), Distribution Management System (DMS), Advanced Meter Infrastructure (AMI) and Meter Data Management (MDM) to create a smarter electric distribution grid.

Black & Veatch partnered with SDG&E to address concerns on the implementation of its DERMS system. The team developed an overall vision/mission statement that defined a common understanding of SDG&E's business and technology needs from the system. It identified key issues and gaps with the commercial solution created a DERMS implementation roadmap with critical milestones and evaluated grid-scale energy storage and microgrid systems. Black & Veatch benchmarked available DERMS systems against the vision and provided vendor and technology recommendations. The team also developed "as-is" and "future-state" grid operations systems architectures.

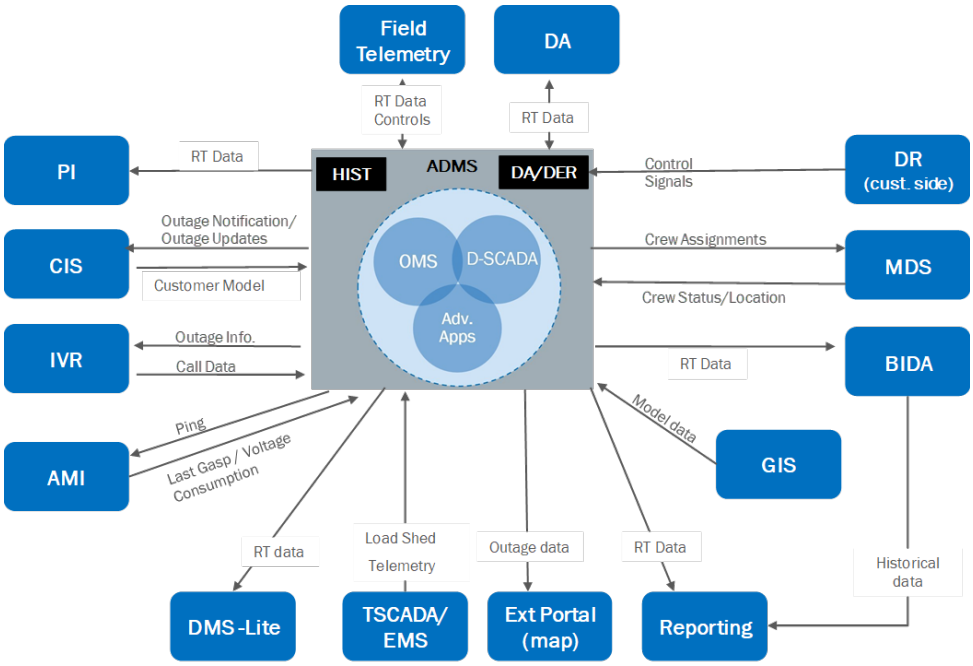
Black & Veatch was contracted by Horizon Power to review its DERMS architecture and provide an independent assessment of its vendor solution. Black & Veatch provided an on-site DER consultant that reviewed DERMS project documentation, interviewed technical and executive staff, and provided a written report with findings and recommendations. The report identified technical and communication issues and provided three different options to resolve them as well as roadmaps for each option. The final deliverable included an executive briefing that culminated with a go/no-go decision and the executive staff selecting one of the options provided by Black & Veatch as the go-forward strategy.

Black & Veatch assisted American Electric Power (AEP) with their Smart Circuit implementation of Volt VAR Optimization. Our primary responsibility was to provide program management services for the AEP VVO program as executed by AEP and Utilidata with the AdaptiVolt product. Black & Veatch's integrated AEP's project plan with Utilidata's project plan, to create a single Project Execution Plan (PEP) to guide the project organizations. The Project Execution Plan included key sections defining project deliverables, Project Communications, Project Responsibility Matrix, Project Schedule, and Financial Management.

Black & Veatch worked with NIPSCO's T&D planning and engineering management personnel to develop a more than $1 billion long-term (seven-year) capital investment plan for its aging electric T&D assets. The risk-based capital plan is focused on the objectives of maintaining high-reliability performance while proactively replacing aging, high-risk equipment across the system. One of the key benefits of the long-term plan is the economic development spurred by these investments in the electric system, which Black & Veatch highlighted through economic impact assessment and forecasting.

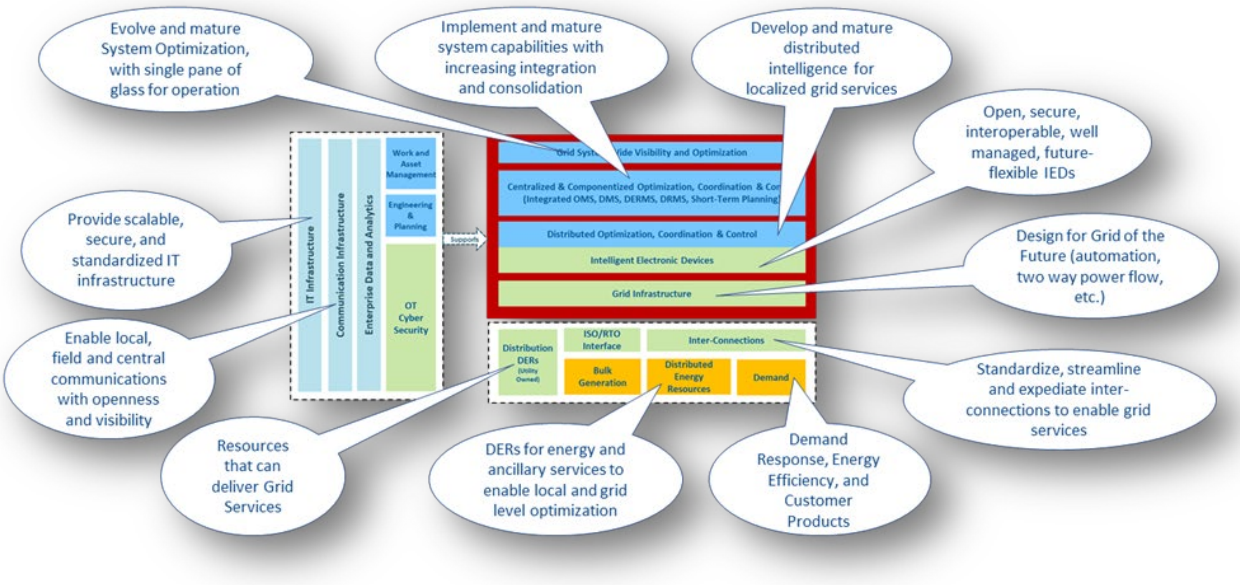
Data Challenges

Operational technology systems create and consume enormous amounts of data to drive operational analysis and decisions. If this data is inadequate or inaccurate, system capabilities and acceptance are degraded. A significant amount of the data is or can be shared across multiple OT applications, hence the trend of system consolidation into ADMS platforms. This sharing also makes the use of a common data model highly valuable. A critical aspect in the distribution system monitoring and control system architecture of today concerns legacy data. This legacy system data is now operational data – and most legacy business processes do not treat it as such – including system planning. Data now becomes classified as a strategic asset requiring appropriate attention and governance. New and existing processes concerning data architecture and models, data cleansing, conversion, and maintenance must provide control and oversight to protect data and its standards of use.



Black & Veatch recommends understanding these legacy data interactions as input to evolving its data management and governance.

The alignment of business capability maturity with the required enabling technologies is a critical factor in managing costs and achieving strategic objectives. The use of the Black & Veatch Grid Services Platform architecture model shown below enables a clear path to do so.



EXPERIENCE IN GRID PLAN SYNERGISTIC DOMAINS

Interconnection

DER interconnection is closely tied to distribution planning and the production of the Grid Plan. The DERs currently operating on the distribution system and those planning to connect need to be considered in the development of the Grid Plan. These standards have a direct impact on the potential use of the DERs in operations as well as how they are studied to ensure continued distribution system safety and reliability once interconnected.

Black & Veatch Experience

Black & Veatch has extensive experience supporting client's transition of their interconnection processes to integrated DERs. Additionally, we facilitate interconnection with over 600 utilities to facilitate interconnection for our EPC projects. Black & Veatch performed a project for Entergy to develop an enterprise-wide approach for optimizing interconnection and accelerate process automation. As part of this project, we developed to-be interconnection processes, equipment and material specifications, technical specification, and requirements to support issuing an RFP to procure tools to support elements to automate interconnection.

Distribution Market Operator

Managing market operations has not been a traditional role for utilities like JEA. Although many utilities participate in wholesale markets, the perceived need for creating and operating distribution markets is a new concept that has spawned conversations and strategies around the concept of a Distribution System Operator (DSO). Clearly, the distribution system is becoming much more dynamic, and traditional

boundaries between the electricity customer and the utility will become more complex. The industry must define new and transparent governance, business models, and operational constructs. However, no clear baseline of operations or foundational assumptions has emerged as the generally accepted model across the U.S.

We have reached a point where Distributed Energy Resources (DER) can be purchased by businesses and homeowners at prices that have justifiable Returns on Investment (ROI). This is especially true as conventional energy prices increase and the price of DER decreases. This has created a conundrum where utilities are selling less power due to reduced customer loads which further requires them to raise prices, making it even more compelling for customers to purchase DER to offset the higher prices. It is a downward-spiraling situation for utilities which causes concern and the need for rethinking the utility business model and potentially the role that they play in the energy marketplace.

Regulators, ISOs, and utilities are studying the concept of creating a Distribution System Operator (DSO) that would animate new distribution markets and engage DER owners. The idea of a transparent, open, inclusive distribution market could potentially accelerate the adoption of DER, create opportunities for innovation and new businesses, and completely change the way the grid operates and the way that consumers, producers, and machines interact with it.

Black & Veatch Experience

Black & Veatch worked with utilities such as San Diego Gas & Electric and a large vertically integrated utility in the Midwest to help define what role(s) they want to play and to develop strategies (organizational, technical, and regulatory) to be successful. Black & Veatch has provided DSO thought leadership with papers, hosted DSO workshops at DistribuTECH, and periodic articles to publishers like T&D World, Energy Central, and PowerGrid.

New Rates and Customer Programs

The Grid Plan incorporates the impact of customer programs including energy efficiency, demand response, DER programs, and TOU rate initiatives in its load and DER forecasts. The Grid Plan should also consider these in its non-wires' solution analysis. In additional applications in the Grid Plan, these programs embody direct and innovative efforts to meet the state's ambitious EMP goals, corporate sustainability initiatives, and provide customer choice and enhance the customer experience.

Black & Veatch Experience

Black & Veatch has deep experience providing expertise and supporting client projects in customer program and rate design, market assessment and benchmarking, new technology review, portfolio growth strategy and cost recovery and rate design in rate case filing. Furthermore, Black & Veatch has developed strategies and assessed tools and methodologies to incorporate impacts of DER, EV, and time of use (TOU) rates into forecasts and planning.

Black & Veatch conducted an examination of the City of Roseville's DER planning assumptions for Energy Efficiency (EE). This included a review of planning assumptions and independent forecast for Solar Photovoltaics (PV) and Electric Vehicles (EV) aa nd new forecast analysis for Demand Response (DR) and Distributed Energy Storage (ES). Black & Veatch also completed an in-depth design of JEA TOU rates based on daily and seasonal cost differentials for economics and efficiency. Finally, for Louisville Gas & Electric, Black & Veatch investigated the economical deployment of an electric bus infrastructure as well

as possible cost-based rate structures related to charging stations and other infrastructure needed to serve electric buses.

Customer Program Challenges

Black & Veatch has witnessed increasing attention in utility efforts to expand customer programs. Growth in customer programs necessitates an additional review of forecasts, owing to the uncertainty in programmatic achievements and customer behavior. JEA needs to ensure evaluation of customer programs quantifies the impact of technology to identify appropriate load modifiers for rate case filings and grid planning.

New energy efficiency, demand management, and distributed energy initiatives across electric and gas utilities have ranged from targeted initiatives resulting in net-beneficial non-wires solutions, innovative demonstration projects to leverage private sector investment, unlock data-based solutions to empower customers, through to beneficial electrification to drive an electric vehicle and clean heat uptake. These initiatives may present opportunities to grow non-traditional revenue streams, adopt innovative cost recovery schemes and build partnerships with third-party vendors and advocacy groups.

Resource and Transmission Planning

The 2019 Energy Master Plan (EMP) emphasizes the need for coordinating resource and transmission planning with DER integration. Opportunities exist where DER capabilities may be leveraged to enhance wholesale grid reliability, flexibility, and market efficiency. Increased coordination between PJM and JEA is anticipated in the areas of:

- Enhanced DER resource location, capacity, and capability forecasting
- Operations, specifically to account for DER operability
- Smart inverter settings to ensure transmission disturbances are not exacerbated
- Retail and wholesale markets that respond to real-time grid needs

Black & Veatch Experience

The changing landscape of the grid system will require increased communication and collaboration between planning and forecasting groups within JEA, PJM, and regulatory entities where needed. This coordination will help ensure resource adequacy is appropriately designed, grid resiliency, flexibility is maintained, and operations are coordinated. Black & Veatch has witnessed utilities plan with a traditional siloed approach. This creates challenges, redundancies, and disparate planning results when planning for the activities necessary to reach the aggressive clean energy goals outlined in the New Jersey EMP. Black & Veatch has assisted utilities with changing culture and behavior, enabled with technologies and data-driven resources, and design both centralized and decentralized organizational approaches to ensure integrated planning is implemented and successful with necessary governance and executive support.

Black & Veatch not only has extensive experience in resource planning, transmission planning and distribution planning but has also worked with utilities to better coordinate these groups to enhance planning activities, optimize capital investments and ensure reliability and flexibility across resource and grid needs. Most recently, Black & Veatch worked with SRP on their Integrated System Planning efforts, the goals of which were two-fold: plan better and plan together. First, Black & Veatch reviewed and evaluated each of the planning group's processes, assumptions, tools and modeling methodologies for best practices and readiness for anticipated future grid needs. Next, Black & Veatch developed an

extensive strategy, set of processes, and tools and templates to ensure corporate alignment, reconcile inconsistent inputs and assumptions, enable innovative and collaborative solution development, and ensure transparency and communication of results across the broader organization.

Furthermore, Black & Veatch has broad experience in resource and transmission planning modeling, wholesale and retail market expertise, and DER resource locational-propensity, capacity, and capabilities. Black & Veatch professionals are well-versed in using established nodal simulation software (PROMOD and/or PLEXOS) to conduct these assessments by effectively leveraging its off-the-shelf EMP market model inputs/outputs. Black & Veatch was asked to perform a renewable integration and effective load carrying capability (ELCC) study for Black Hills Corporation. Black & Veatch also determined the dependable capacity rating of wind and solar resources for reserve margin planning purposes. Black & Veatch performed IRP and a Variable Energy Resource (VER) integration cost study to determine the cost of providing integrating services for wind and solar resource looking to connect to the LADWP power system. Black & Veatch also completed more than 10 IRP studies filings in 2018-2019 alone.

Alternative Ratemaking and Utility Business Models

As mentioned in the previous section concerning distribution markets, utilities are facing an industry-wide shift enabled by the proliferation of DER which is causing them to experience lower kWh sales. At the same time, integrating DER requires increasing grid investment. The result is increasing electricity rates, which in turn make DERs even more economically attractive. A growing number of regulators are also requiring that utilities deploy non-wires solutions instead of traditional T&D assets, thereby putting further pressure on the traditional rate of return earnings streams.

Black & Veatch Experience

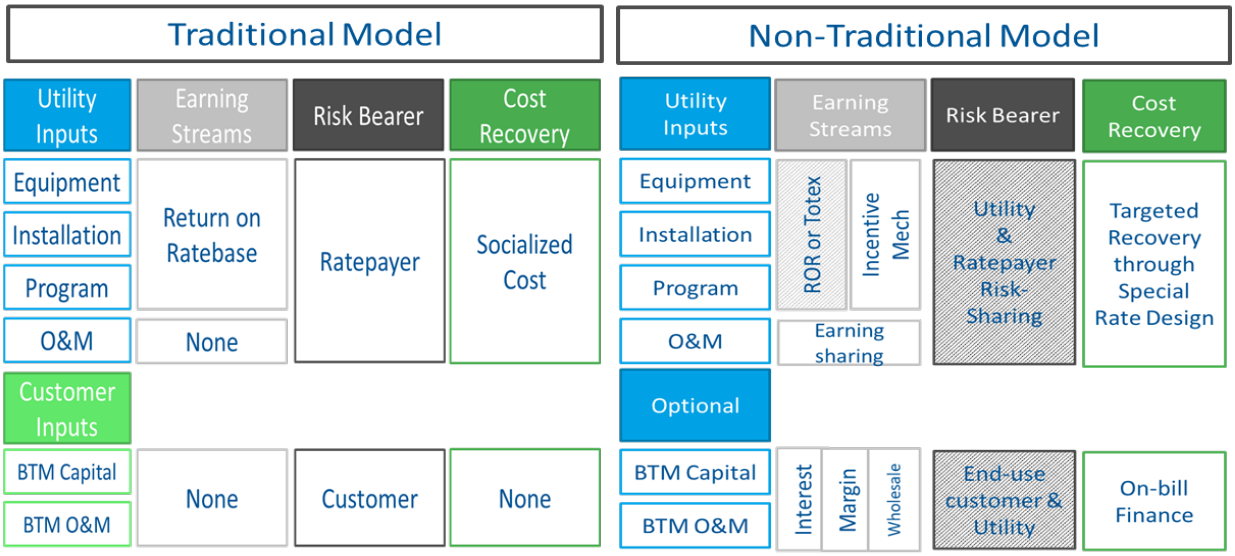
As utilities prepare for future grid technologies, they must also embrace alternative regulations. Black & Veatch believes that embracing alternative ratemaking and new business models can mitigate risk of having them imposed by regulators and creates new opportunities to improve earnings for top performers.

New Business Models

Black & Veatch was tasked by multiple clients to analyze potential earnings opportunities under both the traditional rate base recovery model and alternative regulatory models such as Performance-Based Regulation (PBR). Black & Veatch's approach overcomes this significant business challenge by embracing new business and revenue models and regulatory frameworks including:

- Reducing reliance on kWh sales.
- Offering services and products that enhance customer choice and experience.
- Minimizing rate impacts by shifting from a capital-intensive earnings model to a value-based earnings model.
- Exploring opportunities in adjacent products and services.

The Traditional Model rewards regulated utilities for making capital investments (with a focus on utility inputs). The only earnings stream available to a utility is a return on rate base. As a result, utilities have relied on capital investments to provide reliable and quality service. The risk for these investments is typically borne by ratepayers through general rate increases by the utility.



In a Non-Traditional Model, utilities are encouraged to consider non-capital alternatives. Utilities are also encouraged to share risks with ratepayers. The Non-Traditional Model also aligns cost recovery with end-users through innovative rate design, thereby avoiding general rate increases. Participating in risk-sharing may also create additional opportunities for utilities in a competitive model that are otherwise unavailable.

In a recent project, the client (a confidential West Coast IOU) recognized the risk of the death spiral resulting from declining sales and higher electric rates. The client was interested in exploring opportunities in three transitional areas: (1) clean transportation; (2) energy storage; and (3) a Distribution System Operator (DSO) model. However, the client also wanted to implement these programs outside the traditional regulatory model to minimize the resulting rate impacts and to maximize earnings potential. Black & Veatch worked closely with our client to develop a portfolio of programs that can be implemented under a non-traditional business model. These non-traditional business models relied on innovative ratemaking mechanisms such as Totex (a total expenditure approach and framework) mechanisms, incentive mechanisms and earning sharing mechanisms. Part of the incremental earnings was derived from the competitive wholesale market and behind-the-meter activities. Finally, Black & Veatch developed a roadmap that included five components – Program Development, Policy and Regulation, Business Readiness, Stakeholder Engagement, and Strategic Initiatives.

In another project, Black & Veatch helped an east coast IOU examine strategic initiatives with a focus on improving the utility's Return on Equity (ROE). The proposed strategy included: (1) leveraging existing assets to increase revenues; (2) providing rate relief through incentive and earning sharing mechanisms; and (3) investing in service-based products both in-front and behind-the-meter.

Alternative Regulation

The Rates & Regulatory Practice at Black & Veatch has assisted our gas and electric utility clients in every facet of utility ratemaking and regulatory activities for more than 30 years. We have the capability to support alternative regulation mechanisms including:

1. Decoupling Mechanisms
2. Formula Ratemaking

3. Performance-Based Regulation
4. Infrastructure Cost Recovery Mechanisms
5. Other Riders and Surcharges

Black & Veatch often leverages regulatory capabilities to complement investment plans with alternate regulatory mechanisms. Black & Veatch recently supported ratemaking and regulatory activities in conjunction with a Transmission, Distribution and Storage System Improvement Charge ("TDSIC") filing before the Indiana Utility Regulatory Commission ("IURC". We also developed and supported through expert testimony a comprehensive PBR plan and filing for the Massachusetts electric utility of Unitil Corporation. We also prepared an analysis to support Puget Sound Energy's earnings attrition adjustment. Black & Veatch has also supported numerous formula rates, revenue decoupling mechanisms, infrastructure cost recovery mechanisms and other alternative ratemaking methods. Each of these projects included the preparation of expert testimony and extensive stakeholder engagement support. Please see the section, Regulation and Environmental Compliance, for further details on these projects.

Grid Modernization

Grid modernization and what it entails varies across the industry depending on the jurisdiction in which you operate and oftentimes how the organization is structured. JEA's RFP requesting grid modernization experience is consistent with Black & Veatch's definition of grid modernization. Our opinion is that grid modernization is quite comprehensive. It includes planning, designing, and implementing the expanded two-way power flow and develops and deploys new approaches to improve reliability and resiliency. Grid modernization also includes developing new approaches for addressing the growth of DER, EV and leveraging new technologies involving analytics for improved decision making. Grid modernization also includes adding new communications infrastructure and much more.

Black & Veatch Experience

Black & Veatch offers a one-stop-shop for grid modernization involving strategy, road mapping, regulatory approval to design, construction, and final system acceptance. Because the grid modernization scope and our experience is expansive, we introduce experience with various aspects of grid modernization and then provide selected project experiences.

Grid Modernization: Strategy Planning, Procurement, and Implementation

Black & Veatch typically engages with our clients beginning with a grid modernization planning and strategy phase. We leverage our proven methodology to develop a grid modernization master plan. This master planning process involves an assessment of nearly all types of technologies, new programs, improvement of existing grid infrastructure and support systems with the end-result delivering a roadmap that takes into consideration many factors. Some engagements focus on a specific aspect of grid modernization such as planning for an ADMS roadmap.

While engagements involve facilitating the implementation one of the programs such as AMI. The list below reflects how we often group the individual systems under common modernization programs.

1. ADMS Roadmap: SCADA, DA, OMS, Substation Modernization, and migration plan to an ADMS. Or engagements that involve the procurement or deployment of one of these systems/programs.

2. Asset Management Focus: Emphasis on improving the asset management business processes with the use of new software tools and workstreams.
3. Communication Infrastructure: Investments for the Wide Area Network to the Field Area Network to support applications such as SCADA, DA, DER and AMI backhaul.
4. AMI Master Plan: More recently these assessments involved either an emphasis on how to better maximize the existing AMI investment or how best can a utility migrate to the next generation AMI while identifying what advanced applications would be routed over the AMI versus a separate FAN communications investment.
5. DER Focused: Some assessments start with an emphasis on how best the utility can take a defensive strategy to mitigate the negative impacts of DER. However, as we work with our clients on this topic, we find that an offensive approach is generally best while creating tactical plans to survive and thrive in a growing DER environment.
6. Revenue Growth: Some program assessments focus on assessing new opportunities to grow both regulated and de-regulated revenues.

Regulatory Support

Once the grid modernization plan and oftentimes business cases are completed including financial analysis, we then support our clients with the regulatory approval process. This includes assisting with regulatory strategy, testimony preparation, and testifying and supporting our clients throughout the hearings. We discuss our regulatory engagement more broadly in a later section.

Procurement: Grid Modernization Programs

Black & Veatch goes well beyond the various types of planning engagements as defined above to assisting/leading in the procurement phases of technology selection to the deployment phases. Some types of technology are hyper- competitive with a thriving competing vendor community. Some of these areas now include AMI, MDM, ADMS, EAM, DERMS software vendors, communications infrastructure vendors. For these types of competitive systems, Black & Veatch often facilitates the authoring of dozens of RFPs while helping our clients with the vendor selection journey and contracting. Some areas of grid modernization are less competitive, and a given utility often authors sole-source RFPs such as selecting the preferred IED or RTU vendor between SEL, Eaton, and ABB.

Deployment: Grid Modernization Programs

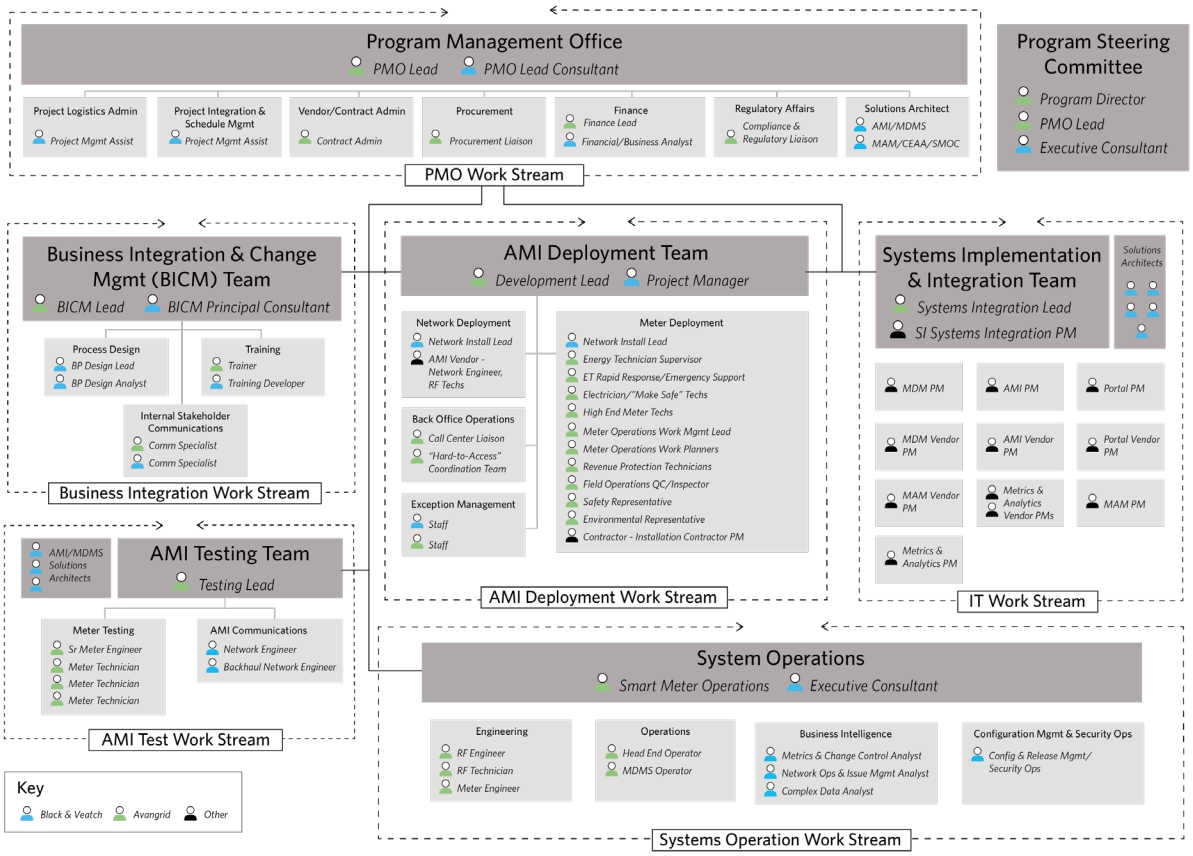
Black & Veatch has been involved with all types of technology deployments involving grid modernization. While we have significant planning and road mapping expertise and qualifications for grid modernization, we also have very deep experience with leading the “hands-on in the trenches” field deployment work. Out of our 11,000 employees, we have a very high percentage of engineers working in design and build engagements. Black & Veatch has been rated # 1 for eight of the nine previous years in utility telecommunications and # 2 in Power. To establish the top of the list in telecom and power, the firm must perform thousands of hours of deployment projects. The items listed below are examples of the types of technologies being deployed.

- Substation Modernization and System Protection
- Micro-grids
- Distribution Automation (DA) and SCADA and Advancement into ADMS
- Communications Infrastructure WAN and FAN
- DER planning and deployment

- Asset Management
- AMI, EAM and CIS, WMS, OMS, MWM, GIS
- Analytics and Leveraging Data

In the areas where communications, DA and SCADA are being deployed in the field, a common role Black & Veatch performs is a combination of project management and an "owners engineer". In the owner's engineer role, we are the subject matter experts to ensure vendors are performing meeting commitments to specifications.

In some engagements, Black & Veatch will be entirely responsible for the deployment's success and running a Program Management Office (PMO). This will include project management, system integration oversight, quality control, testing, organizational change management, employee training, and system acceptance. For sophisticated implementations like AMI, we may have 20 different Black & Veatch consultants engaged in the deployment deliverables during the life cycle. An example of a PMO project team is depicted below. The team is organized with Black & Veatch's consultants complementing the client's staff in several key business areas.



Some examples of Grid Modernization planning and road mapping includes Northern Indiana Public Service Company (NIPSCO) and their $1 billion seven-year T&D capital investment plan. The program included a heavy emphasis on reliability improvement. In an effort to improve the asset management related performance, BC Hydro engaged Black & Veatch to assist in creating a multi-year asset management improvement roadmap. With a DER focused plan, Black & Veatch helped TVA and their distribution utility members with a project plan to proactively address the growing amount of DER within

their region. Black & Veatch also led many communications infrastructure grid moderation resiliency plans. With Duke, Black & Veatch completed several engagements ranging from facilitating the creation of their telecom master plan, to substations security to private LTE modeling. With, Power South, Black & Veatch created their communications master plan for their distribution programs involving distribution SCADA, DA, AMI, DER and emerging IoT programs. The solution included the use of fiber optics and microwave for the WAN and a licensed point-to-multipoint for the FAN. Various grid modernization projects have been completed for San Diego Gas and Electric including an assessment of viable approaches for introducing new programs that will increase revenue (both regulated and de-regulated) and completing a master communications plans to add much-improved communications capabilities and resiliency t, Texas Municipal Power Agency, and many others. These communication projects involved a combination of creating a communications roadmap, to completing hands-on communications design and construction for fiber optic deployments, Wide Area Network, and last-mile wireless. Black & Veatch has designed and built more than 40,000 miles of fiber optic facilities over the last ten years. While supporting clients with the hands-on deployment for SCADA, DA, and substation modernization in an "owners engineer" role, client examples include: For Dominion Power, Sask Power, HECO and PPL Black & Veatch completed engagements involving deploying various type of DA programs to leading AMI and communications infrastructure engagements.

Appendix B Staff Qualifications

Our Black & Veatch professionals listed below reflect the subject matter expertise, skill sets, and experience required to successfully align with JEA's goals, define objectives and develop a rewarding Grid Plan.

Heather Donaldson *Project Director, DER SME*

Ms. Heather Donaldson is a Project Director in Management Consulting. Ms. Donaldson is a recognized thought leader serving as a member and advisor in forums focused on enabling technical capabilities, business model and policy changes. Specifically, Ms. Donaldson served as a member of the DOE EAC appointed by the U.S. Secretary of Energy for two terms from 2014 - 2018. During this period, she served on peer review committees and contributed to several DOE efforts including the DSPx and other outputs of the Grid Modernization Lab Consortium (GMLC). She also served as an advisor for NIST on its Smart Grid Advisory Committee until its dissolution last year. In this role, she advised NIST and contributed to interoperability principles and standards. She served on the GridWise Architecture Council (GWAC) to help drive frameworks for interoperability and transactive energy.

> *Recognized as a thought leader…*

For the last decade, Ms. Donaldson has been actively engaged in DER integration. While working for the California ISO, she held the position of Director Smart Grid Technology and Strategy charged with developing roadmaps and strategy to promote grid modernization to benefit the transmission system including renewable forecasting, synchrophasors, dynamic thermal line rating, etc. While at SCE she held a position in distribution planning responsible for leading company filing for grid modernization. At the California Public Utilities Commission, she acted as the interconnection ombudsman and special advisor on the distribution resource plan, electric vehicle, and interconnection related distribution and operations proceedings. She led several California roadmaps including Energy Storage, Demand Response, and Vehicle-Grid-Integration leading to actions in policy, planning, and grid operations. Her experience spans electricity industry domains including distributed energy resource integration (DR, EE, EV, Energy Storage, microgrids), grid modernization, wholesale markets, and distribution and transmission planning.

Paul Moran *Project Manager, Engagement Lead*

Mr. Paul Moran is an accomplished energy sector consulting professional with extensive background in developing practical strategies to meet the challenges of complex business transformation.

Paul has broad experience assessing, developing, and implementing comprehensive transformation programs for utilities. His work focuses on applying organizational change management tools and techniques to help ensure that specific program and overall strategic objectives are achieved.

> *… expert in EV market demand Modeling…*

His experience includes delivering organizational assessment and transformation projects, conducting strategic planning exercises, evaluating and improving risk management plans and leading business process reengineering improvements.

Prior to consulting, Paul served as Director of Strategic Planning at CenterPoint Energy.

Felise Man *Project Advisor*

Ms. Felise Man is an engagement lead and is a technical professional with deep expertise in integrated system planning, customer-sided solutions, non-wires alternatives, and business strategy in the utility industry.

Ms. Man has led business readiness assessments and change management programs for utilities to facilitate grid planning and DER integration. Felise also has extensive experience in new business models development, new product development and regulatory negotiations with the New York REV initiative. Core business skills include project management, strategic planning, facilitation and engineering design and construction management.

> *Develops new business opportunities for DER …*

Most recently, Ms. Man led an engagement to assess Salt River Project's grid and resource planning and develop processes to transition the organization to an integrated and systematic approach. Felise has managed an effort with the Orlando Utilities Commission to value battery storage systems on their network and optimize for use cases and value stacking.

Doug Preece *Project Advisor*

Mr. Doug Preece is a Managing Director with Black & Veatch Management Consulting. He has over 34 years of experience in the energy and utility industry, including 12 years in various operations and customer service roles at a major US utility. With his knowledge and experience spanning T&D field operations, engineering, business, information technology, and consulting, Mr. Preece can immediately add value and assist clients with their most challenging, multi-faceted issues.

…34+ years experience in the energy and utility industry…

His focus is the development of strategies and road maps for the adoption and implementation of emerging energy technologies and applications such as Grid Modernization, advanced distribution management systems (ADMS), the management of distributed energy resources (DERs), demand response management (DRM), energy storage, and the refresh of advance metering infrastructure (AMI).

Mr. Preece is a registered Professional Engineer, Commonwealth of Pennsylvania, Certificate PE-044396.

Catherine Guentert *DER Analyst*

Ms. Catherine Guentert Catherine Guentert: Ms. Guentert has 15+ years of experience in the design and construction of infrastructure projects. For the last decade, she has been working with major utilities and local jurisdictions to assist clients in the renewable energy sector.

…Bachelor of Engineering, Civil/Structural…

She has executed over 200 electric vehicle charging sites across a five-year period, and has been involved in the code changes for EV charging in California including local chapters of the International Building Codes (IBC) council. Her expertise lies in understanding the connectivity requirements and site constraints of implementing BESS, EVSE, and PV and knowing personally the key players in getting these plans implemented.

Norma Hutchinson *Consultant*

Ms. Norma Hutchinson is a Consultant within Black & Veatch Management Consulting's Strategy and Planning practice. Ms. Hutchinson has an extensive background in designing and leading transportation electrification and decarbonization research projects for public, private, and non-profit stakeholders.

Strategy and Planning practice. During her time with the company, she has helped with research, stakeholder engagement, and utility program design for a $348M Transportation Electrification Plan for NV Energy.

> *…extensive background in designing and leading transportation electrification…*

Black & Veatch Management Consulting, LLC
11401 Lamar Avenue, Overland Park, KS 66211
P +1 704-510-8454 | E WilhiteRT@bv.com

December 5, 2022

Jordan Pope
Vice President, Corporate Strategy
JEA

Dear Jordan:

Black & Veatch Management Consulting, LLC (Black & Veatch) is pleased to be selected to perform a DER readiness assessment for JEA.

In reference to Purchase Order **209240**, Black & Veatch respectfully requests three updates:

1. Please include a reference to JEA Contract #JEA10637 in the P.O. (the current P.O. references the following number: 199573)
2. The terms and conditions governing this P.O. should be the terms and conditions that govern the Zycus contract – JEA10637, as these are the terms that govern the IRP engagement per P.O. 199883 (pls see enclosed)
3. Per our proposal dated October 21, 2022, our proposed fixed fee is $217,500 excluding travel expenses. Please update this P.O. to include a not-to-exceed price of $237,500. This amount includes the fixed fee of $217,500 plus estimated travel costs that are capped at a maximum of $20,000. The estimated travel costs are based on an expected total of three trips for three B&V staff each.

We appreciate the opportunity to serve JEA and look forward to working with you on this important engagement.

Very truly yours,

Robert Wilthite
Senior Vice President

Approved by the JEA Awards Committee

Date: 08/19/2021 Item# 3

Formal Bid and Award System

Award #3 August 19, 2021

Type of Award Request: PROPOSAL (RFP)
Requestor Name: Goodrich, William
Requestor Phone: (904) 665-6604
Project Title: Integrated Resource Planning for Electric Generation Planning
Project Number: HE10220
Project Location: JEA
Funds: O&M
Budget Estimate: $1,200,000.00, additional funds pulled from 30300
Scope of Work:

JEA is seeking the services of an Electric Generation Integrated Resource Planning (IRP) Services provider. The IRP shall provide a near-term to long-term strategic recommendation, with alternatives that address the following concerns:

- System reliability, system balancing capability, and adequacy of resources (i.e. FAC Rule: 25-6.035).
- Retirement and replacement for aging generating plants.
- Integration of planned and future utility-scale solar facilities, and system ramping requirements.
- Land requirements and site locations for all new system additions.
- Increased customer-owned Distributed Energy Resources (DER), Demand-side management (DSM), and Energy Efficiency (EE) adoption.
- Increased Electrification adoption.
- Effects of other emerging supply-side resource technologies.
- Industry objective of lowering carbon emissions.
- Potential legislative and/or regulatory mandates on carbon emissions, environmental quality, and renewable goals.

JEA IFB/RFP/State/City/GSA#: 1410223046
Purchasing Agent: Lovgren, Rodney
Is this a Ratification?: NO

RECOMMENDED AWARDEE(S):

Name	Contact Name	Email	Address	Phone	Amount
BLACK & VEATCH MANAGEMENT CONSULTING	Paul Maxwell	MaxwellP@bv.com	11401 Lamar Ave. Overland Park, KS 66211	916-847-1349	$1,705,392.00

Amount for entire term of Contract/PO: $1,705,392.00
Award Amount for remainder of this FY: $170,392.00
Length of Contract/PO Term: Project Completion
Begin Date (mm/dd/yyyy): 09/15/2021
End Date (mm/dd/yyyy): Project Completion (Expected: 12/31/2023)
JSEB Requirement: Optional
Comments on JSEB Requirements:

Acuity Design Group – Consulting Support - 5%
PROPOSERS:

Name	Rank
BLACK & VEATCH MANAGEMENT CONSULTING LLC	1
1989 & CO DBA / BURNS & MCDONNELL ENGINEERING COMPANY INC.	2
CHARLES RIVER ASSOCIATES	3
GDS	6
E-3	3
SIEMENS	5

Background/Recommendations:
Advertised on 02/02/2021. Thirteen (13) prime companies attended the mandatory pre-proposal meeting held on 02/09/2021. At proposal opening on 03/16/2021, JEA received six (6) Proposals. The public evaluation meeting was held on 04/30/2021. JEA deemed Black & Veatch Management Consulting LLC the most qualified to perform the work. A copy of the evaluation matrix and negotiated schedule and fees are attached as backup.

Each Company submitted job titles and hours forecasts for the scope of work in the solicitation. JEA reviewed the forecasts comparatively between submitting respondents. The hours submitted by Black & Veatch Management Consulting Services LLC was on the low-end to middle of the range of submitting companies for the various deliverables.

JEA last contracted Black & Veatch Management Consulting Services LLC in 2018 for rate design consulting services which had a weighted average hourly rate of $271.00. The weighted average hourly rate for this project is $268.00 / hour. The original budget of $1.2M did not include the following content, which increased production modeling efforts, analysis and reporting:

- More Complex Environmental assessment due to new legislative and regulatory (L&R) developments
- Additional Resource options to evaluate (i.e. hydrogen fuel to respond to L&R)
- CFB gas conversion conceptual proposal to develop and evaluate
- PURPA support (calculation of avoided cost for potential PURPA solar)
- Transmission constraints analysis (new unit siting and import capability)
- Additional scenario studies due to L&R uncertainty

JEA reviewed the forecasts and rates distribution for the scope of services. JEA deems the loading appropriate and consistent with how JEA envisions the work being completed. In consideration of the level of complexity of work being above a typical engineering engagement, the rates and compensation are considered reasonable.

1410223046 – Request approval to award a contract to Black & Veatch Management Consulting LLC, for Integrated Resource Planning Services in the amount of $1,705,392.00, subject to the availability of lawfully appropriated funds.

Manager: Fischer, Melinda L. - Mgr Electric Generation Planning
Director: Coarsey, John B. - Director, Electric T & D Planning
VP: Erixton, Ricky D. - VP Electric Systems

APPROVALS:

August 19, 2021

Chairman, Awards Committee **Date**

8/19/21

Budget Representative **Date**