Phase 2: Owner's Engineer Fort Lauderdale AMI Project

Background

As described in the original 2021 RFQ, the City of Fort Lauderdale seeks support from the consultant to attend the construction meetings, conduct inspections, coordinate required training and complete final inspections. Black & Veatch, and the staff that would be assigned your project, has extensive experience in providing project management and implementation oversight through this phase of an AMI project.

Based on our engagement thus far and discussions with city staff, the following is the scope of work regarding Black & Veatch support for your AMI deployment.

Project Kickoff Meeting and Planning

Task 1: Project Execution Planning

Black & Veatch will work with the City and the Vendor to develop the Project Charter and facilitate the Project Kickoff meetings.

Project Charter

In Black & Veatch's experience, an effective project charter establishes project goals and team structure while incorporating the project vision. The team structure identifies resources and leads to common project workstreams as they relate to future state business processes and teams. Resources must be identified for each project role, however resources to roles may not be a one-to-one ratio. This will serve as a guide for the broader project team.

Key task objectives:

- Ratify/Communicate AMI Project Charter – Program Management Governance Guide
- Compile Internal Project Team Organization Structure
- Identify members of Steering Committee
- Identify members of the Change Management Committee
- Identify the Core Project Team
- Communicate High-level project implementation approach
- Communicate High-level project stakeholder responsibilities

Assumptions:

City personnel will be available to discuss and review the components of the AMI Project Charter.

Project Kickoff Meeting

The project kickoff meeting is intended to establish the City internal project team and introduce the City's team to the Vendor project team. Project scope, timeline, and roles and responsibilities will be discussed and agreed upon.

Key task objectives:

Prepare for and Conduct Onsite Project Kickoff meeting with Core Project Team Members, all Vendors, and Key Stakeholders to provide:

- Project Scope
- Project Timeline
- Communications Plan
- Roles/Responsibilities

Assumptions:
City personnel will be available to participate in preparing for the kick-off session and take on key presentation roles.

Project Execution Plan Oversight
Black & Veatch knows that Quality Assurance is the critical facet of a successful AMI implementation. This is accomplished with established project controls, communications, and risk / issue management. The Project Execution Plan intends to bring all project parties together to level-set and define expectations on major project items. Black & Veatch will be focused on the overall AMI program as a whole by integrating the AMI hardware vendor, AMI installation vendor, and system integrator schedules into a single comprehensive view through a Master Project Plan. Black & Veatch will oversee and support risk management of the dynamic nature of the schedule by continuing to update the Master Project Plan as the vendor entities provide updates.

Key task objectives:

- Develop a Project Execution Plan (PEP) in coordination with City and AMI vendor

- Project Methods and Controls
    - Cost and Budget Controls
    - Quality Control
    - Risk/Issue/Change Management
    - Communications
- Performance Metrics/Benefit Verification Parameters
- Cost Model
    - Project Schedule and Costs
    - Estimated Invoicing Forecast
- Master Project Plan
    - System Integration
    - Schedule
    - Initial Deployment and ramp-up
    - Full Deployment

Assumptions:

- Key City and AMI Vendor personnel will be available to participate and contribute to the development of the Project Execution Plan and the related supporting documentation.

- AMI Vendor Stakeholders will provide incremental updates to schedules either as changes occur or at a minimum monthly basis for continued integration into the Master Project Plan

The table below outlines the deliverables for this task.

Deliverable	Item	Description
1.1	Project Charter	Identifies project team members, steering and change management committees; establishes objectives
1.2	Project Kickoff Meeting	Two kickoff meetings intended to establish the City internal project team, and introduce the City team to Vendor project team
1.3	Project Execution Plan	Methods for cost/budget controls, quality control, change management, and communications; includes Master Project Plan detailing Deployment

Task 2: Integrated Training Plan

The AMI Vendor selected by the City will have responsibility for providing the training materials and recommending a training execution plan. Black & Veatch will define the alignment between vendor trainings and Fort Lauderdale stakeholders.

Key task objectives:

- Review AMI Vendor's training plan for completeness and recommend any supplemental training

- Develop and create an AMI integrated training plan across all disciplines

  - Meter Field Maintenance
  - Operations and Exceptions
  - Meter Reading and Billing
  - Customer Support
  - Integrations

- Develop Training Schedule identifying:

  - Training Session Objectives
  - Tracking participants training results

The table below outlines the deliverables for this task.

Deliverable	Item	Description
2.1	Integrated Training Plan	Develop and create an AMI integrated training plan (AMI Headend, Infrastructure, Endpoints, Tools & Processes)
2.2	Schedule Coordination and Results Tracking	Progress Tracking and Reporting

Assumptions:

- Training will be planned to be conducted by the AMI Vendor and/or City personnel as appropriate to the topic

■ AMI Vendor and the City will be available for discussion/input for scheduled AMI Integrated Training Plan sessions/meetings

System Integration Oversight

Task 3: System Integration Oversight

Black & Veatch will work with the City and the Vendor to oversee Systems Integration. Black & Veatch's role is to oversee the work to assure the vendor is meeting the technical and schedule obligations set forth in the agreement. Black & Veatch's process of overseeing the system integration success is a combination of witnessing the testing or reviewing the test details that were witnessed by the City assigned testing leads. For the Initial System Acceptance Test, City employees will be performing the tests or in some cases witnessing the tests. Black & Veatch will provide check-lists and suggested methodology to be used by the City employees. Black & Veatch will report items for resolution and re-testing.

Key task objectives:

■ Coordinate and Oversee Systems Integration

• Interfaces Designed, Developed, Tested, and Automated
• Track any missed results in weekly status reports provided by the AMI vendor

The table below outlines the deliverables for this task.

Deliverable	Item	Description
3.1	Integration Coordination	Coordination and Oversight of Integration Design, Development, Testing
3.2	Integration Progress Tracking	Progress Tracking and Reporting

Assumptions:

■ Black & Veatch will lead technical review meetings with designated internal and external resources to monitor progress and identify roadblocks for the duration of the system integration

■ Designated internal and external resources will be available and participate in technical review meetings

■ Black & Veatch will not have accountability to complete the tests. In the event the City needs additional testing resources, Black & Veatch is able to propose additional resources with a scope change for hands-on testing.

Deployment Oversight

Task 4: Deployment Project Management

As a result of Black & Veatch's extensive AMI project experience, we have found that to successfully deploy an AMI system, the project management team needs to effectively address deployment oversight, project communications, and proper controls through phase gating and acceptance and overall system

acceptance. Black & Veatch will fulfill the role as "owner's engineer" and work with the City and the Vendor to coordinate Full Deployment efforts. Black & Veatch will provide subject matter experts and support resources as needed.

Key task objectives:

- Provide structured project management during the full deployment period
  - Project Tasks executed in a timely and organized fashion
- Coordinate with the City and Installation Coordinator to develop the Field deployment plan incorporating process and procedures for:
  - Supply chain
  - Contract employee protocols
  - Warehouse functions
  - Training
  - Field installation
  - Data Quality Assurance
  - Safety
- Perform oversight reviews and coordinate status meeting to review progress, review meter count progression and to identify areas where deployment activity is expected
- Provide ongoing planning, troubleshooting, support for the management of the full deployment
- Review, monitor, and ensure that the communications plan is followed to ensure that customers, project team, steering committee, and City staff are aware of pertinent information regarding the AMI deployment project

The table below outlines the deliverables for this task.

Deliverable	Item	Description
4.1	Project Management	Provide structured project management during the full deployment
4.2	Field Deployment Plan	Coordinate with the City and Installation Coordinator to develop the Field deployment plan
4.3	Progress Reporting	Perform oversight reviews and coordinate status meeting to review progress
4.4	Planning & Troubleshooting Support	Provide ongoing planning, troubleshooting, support for the management of the full deployment

Assumptions:

- Consistent periodic project team review meetings will be conducted with key resources from the City, AMI Vendor and Installation Contractor.

- AMI Vendor and Installation Contractor will develop and refine the necessary processes required in this Task.

Outreach and Communications Plan

Task 5: Develop and Execute Communications Plans

Working closely with the City of Fort Lauderdale, the Black & Veatch team will develop a program to promote awareness among key stakeholders of the project. A communication strategy and detailed tactical plan for the implementation will be developed to accomplish this. Key stakeholder communications will be created for, among others, the councils and regulatory bodies, employees, and consumers. This task includes assisting the Utility team in developing a strategic messaging and communications outreach plan.

Black & Veatch will conduct market research and up to 10 community meetings, to inform the public's current understanding of AMI technology, identify key audience stakeholders, and identify message themes and channels that will work in the Fort Lauderdale region. Black & Veatch will facilitate a half-day workshop with AMI team members and any other interested stakeholders to identify the specific communications requirements, including:

- The specific audiences or targets of the communication campaign
- The information content to be disseminated to each of the audiences
- The vehicle by which the information content will most effectively be communicated to each
- Reusability of materials
- Responsibilities and assignments for Black & Veatch and the City of Fort Lauderdale

Black & Veatch will summarize the results and decisions in a brief recommendations document.

The Black & Veatch Team will develop a master presentation that includes content to address all identified audiences and stakeholders and assist the Water Utility AMI team in developing strategic messaging.

Subsequently, several individual presentations will be prepared using subsets of the master presentation content to focus the correct message for the given audience. The actual delivery of these presentations to the specific audiences will likely be a combination of Black & Veatch team led or Fort Lauderdale led events. For briefing internal stakeholders, we would expect that Black & Veatch team members would be delivering the presentations and facilitating associated discussions. For external presentations such as regulators, customers, and media, we would expect Fort Lauderdale personnel to lead those, with any necessary support as may be needed in preparation or follow-up provided by Black & Veatch personnel.
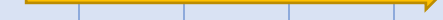
Schedule

The proposed Statement of Work is expected to follow the below schedule outline, key influencing milestones:
- AMI Vendor deployment timeline
  - This plan assumes beginning the project 3 months prior to meter installation
  - This plan assumes completion of services 2 months after meter installation is complete
- City of Fort Lauderdale subject matter expert involvement

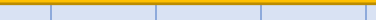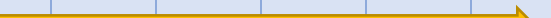- Should the City notify Black and Veatch of the need to reperform AMI Vendor RFP solicitation, support, and quantification services, Task 1-5 will be delayed until an AMI Vendor is selected.

Task	Description	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9-31
1	Project Charter and Kickoff	████	████	████	████	►►				
2	Integrated Training Plan			████	████	████	████	████	►►	
3	Systems Integration Oversight		████	████	████	████	►►			
4	Full Deployment P.M.				████	████	████	████	████	►►
5	Communications Plan		████	████	████	████	████	►►		
6	Project Controls & Accounting	████	████	████	████	████	████	████	████	►►

Resource Plan

The resources proposed are based on the Scope of Services described and are expected to be the following:

Black & Veatch:

- AMI Project Director – Tom Bohrer
- AMI Consultant – TBD
- AMI Technical Specialist – Nicholas Alexandrou
- AMI Business Intelligence Developer - TBD
- Project Management, Controls and Accounting –
    - Melissa Velez
    - Nickolas Trulson
    - Stephanie George
    - Jenna Daniels

AECOM

- Technical Project Manager
- Technical Specialist
- Admirative Assistant

Dickey Consulting

- Public Outreach Project Director
- Public Outreach Project Manager
- Public Outreach Project Coordinator

VEPO

- QA Field Tech

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Rate Table

Resource	Rate
AMI Project Director	$ 298.00
AMI Consultant	$ 290.00
AMI Technical Specialist	$ 280.00
AMI BI Developer	$ 280.00
General Project Manager	$ 225.00
Senior Business Analyst	$ 185.00
Technical Training PM	$ 225.00
Technical Training Specialist	$ 175.00
Technical Training Assistant	$ 90.00
Outreach Project Director	$ 167.00
Outreach Project Manager	$ 101.00
Outreach Project Coordinator	$ 78.00

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Estimated Pricing Outline:

Summary

Task	Hours	Subtotal
PHASE 2 – Owners Engineer		
Project Kickoff Meeting and Planning	622	$181,660.00
Integrated Training Plan	338	$78,810.00
Systems Integration	605	$173,226.00
Deployment Project Management	4,844	$1,462,716.00
Communications Plan	530	$72,140.00
Project Management & Controls	372	$73,780.00
Project Dashboard Services as needed	NA	$138,120.00
Estimated Travel Expenses	NA	$124,400.00
PHASE 2 – Owners Engineer Total	7,311	$2,304,852.00

- Project Dashboard Services will be fully defined and mutually agreed upon by the City assigned Project Manager and Black & Veatch prior to execution
- Travel expenses will be invoiced based on per diem rates for hotel, M&IE in accordance with: U.S General Services Administration https://www.gsa.gov/travel/plan-book/per-diem-rates
- All flights and car rentals will be invoiced based on actual cost, with no markup and with pre-authorized travel by city assigned Project Manager

PHASE 2: Task 1: Project Kickoff Meeting and Planning

Resource	Total No. of Hours	Subtotal
AMI Project Director	160	$47,680.00
AMI Consultant	462	$58,580.00
Total	622	$181,660.00

Task 2: Integrated Training Plan

Resource	Total No. of Hours	Subtotal
AMI Consultant	174	$50,460.00

AECOM	164	$28,350.00
Total	338	$78,810.00

Task 3: Systems Integration

Resource	Total No. of Hours	Subtotal
AMI Project Director	122	$36,356.00
AMI Consultant	163	$47,270.00
AMI Technical Specialist	320	$89,600.00
Total	605	$173,226.00

Task 4: Deployment Project Management

Resource	Total No. of Hours	Subtotal
AMI Project Director	1057	$314,986.00
AMI Consultant	3,787	$1,098,230.00
VEPO	N/A	$49,500.00
Total	4,844	$1,462,716.00

Task 5: Communications Plan

Resource	Total No. of Hours	Subtotal
AMI Consultant	90	$26,100.00
Dickey Consulting	440	$46,040.00
Total	530	$72,140.00

Task 6: Project Management, Controls, and Accounting

Resource	Total No. of Hours	Subtotal
General Project Manager	124	$27,900.00
Business Analyst	248	$45,880.00
Total	372	$73,780.00

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Supplemental Services:

Black and Veatch offers, for consideration, the following additional services to be added on by the City of Fort Lauderdale at their discretion leveraging the change control process.

Project Dashboard

Black & Veatch will develop, host and make available to the utility Power BI based dashboards that maximize the utilization of AMI data. Black & Veatch recommends the City consider a "deployment management" or AMI operational dashboard as well as analytic solutions (dashboards or 'features') that support broader use of AMI data, such as:

- Water Loss Calculator (How much estimated customer water loss has been saved by system)
- General System Functioning (Is the system working as intended)
- Malfunctioning Meters
- Active Leak Map
- Total Consumption Charts for System (Billable or Unbillable)

Final dashboard portfolio developed will be informed by conversations with business stakeholders and recommendations founded in Black & Veatch's industry best practices. The dashboards will contain filters, functions, and features based on custom attributes defined by the City and its unique data structure, cadence, and definition. At the conclusion of the deployment initiative the City may choose to retain Black & Veatch services for dashboard and data hosting, or may choose to migrate the solutions to a localized storage and hosting facility.

Deliverables

- AMI Analytic dashboards (Power BI) that meet the use cases as defined by the business and as agreed to in the scoping discussion

Test Execution Services

To support system integration and/or functional business user testing, Black & Veatch can provide experienced testers who leverage industry best practices in test execution, including:

- Test failure tracking
- Data integrity analysis
- Common cause analysis

Ongoing Hosting and Analytic services

Under the scope of this contract, Black & Veatch agrees to provide data hosting and data analytic services as outlined. Should the City of Fort Lauderdale be interested in developing additional analytic capabilities outside of the defined 200 hours of development, these efforts can be undertaken for an additional fee at the rate schedule included herein.

Additional Supplemental Services:

Data hosting services are provided for the duration of the deployment effort, at the completion of the deployment effort if continued support is needed the hosting and data maintenance services may be extended for a fee.

Business Process Improvement Plan and Execution

Leveraging the following methodology, Black & Veatch can support the City of Fort Lauderdale in adapting their existing business processes to maximize the integration and use of the new AMI system.

Assess Phase 1	Plan Phase 2	Build Phase 3	Implement Phase 4	Sustain Phase 5
Be familiar with the project and impacted users to plan how to enable the organization's change.	Ensure changes are adapted to the program's specific needs, strategic objectives, and constraints.	Provide a well-defined Learning & Development program that enhances all impacted end-users' capability.	Develop meaningful knowledge, skills, and abilities to support work procedures and processes based on program goals.	Sustainment is all about the long-term vision and continuous improvements

Key task objectives

1. Assess:
   a. Catalog current processes impacted by the project or opportunities for efficiency enabled by the new technology.
   b. Identify stakeholders who are involved/impacted in the AMI process and gather their inputs on areas for improvement.
   c. Review organization readiness and communication plans
2. Plan: Define clear and achievable goals and objectives for the AMI process improvement plan.
3. Build
   a. Map out the current business process to understand its flow and identify bottlenecks and inefficiencies
   b. Identify areas of change as a result of new AMI technology
   c. Define change management (training) practices necessary to introduce revised business processes
4. Implementation: Implement the solutions designed in the previous step, considering the inputs of stakeholders.
5. Sustain:
   a. Monitor the AMI Process regularly and evaluate its effectiveness in meeting the goals and objectives set in step 3.
   b. Continuously evaluate the AMI process and make changes as needed to improve efficiency and effectiveness.

Assumptions:
- Strategy will be aligned to an informed by the City of Fort Lauderdale stakeholders

- The City will make available key subject matter experts in existing business process(es)
- Training planning efforts completed in Task 2 would be used as an input to this effort

Customer Portal Engagement

Together with our partners, Dickey Consulting, Black & Veatch can support the City in its efforts to drive customer portal engagement of the newly implemented customer portal. This effort would be considered supplemental to Task 5 and would leverage the outcomes of that task to support the City in the tactical implementation of messaging strategy, community events, and other strategies that support driving engagement to online resources available to customers.