



Water Resources Department

Statement of Work



for

**Advanced Metering Infrastructure
Analysis and Acquisition Support Services**

April 30, 2019



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Scope of Work

Part I – Financial Analysis and Business Case

Task IA: Project Assessment

During Task 1A, many interviews/workshops will occur that are described in the Subtasks below. In general, these meetings will take place in person and ideally immediately after the kickoff. Excergy will work with the City to schedule meetings, interviews, and workshops consecutively (i.e. in the same on site week) when possible to maximize efficiency and minimize travel costs. The meetings/workshops will be spread out over a series of weeks with breaks in between for offsite analysis and work.

Subtask IA-1: Project Management and Review of Existing Information

Shortly after the notice to proceed, Excergy will meet with the City's project team in person to conduct a Kick-Off meeting, to fine-tune project scope, requirements, deliverables, timetable and reporting relationships, and to discuss project issues and concerns. We will review the make-up of the City's project team and subject matter experts to achieve a broad representation. We will provide the City's team with a request for background information, including your current IT environment (e.g. operational systems such as the existing Harris Systems, ServiceLink, InforLawson, Asset Management, GIS, maintenance planning, customer web portals, etc.), anything needed for the Pilot programs you are pursuing with vendors, as well as any environment and integration diagrams that may exist, current conservation programs, current water rate sheets, capital investment plans, etc. We will review the data request with the City's project team to understand what information is readily available and who will compile it. We will establish a timetable, being mindful of any limits on readily available data and City staff members' time. The City may not have all requested information available in a form that can be easily delivered. Excergy does not expect the City to create this content if it is not easily available. Information that cannot be delivered in advance will be discussed in Subtask 2.1 interviews. We will identify City staff members to be interviewed and establish an interview schedule that fits within the overall project schedule.

Excergy will employ its program management methodology over all of the project activities, which is modeled on the PMI's PMBOK® and Agile methodologies. The Excergy Project Lead will execute/maintain a compatible project management approach and methodology with the City, manage the project organization and quality assurance and control. He will plan for and anticipate issues and actively work for resolution of issues.

The Excergy Project Lead will manage the bi-weekly project status cycle for the City. This will include measurement of progress towards the plan, performance status, risk management, items of concern, and open action items. These items will be managed regularly and will be consistently tracked.

As a foundation for the economic and financial analyses and lead into the AMI requirements definition, we will lead the City staff in a series of short interviews and a set of workshops to identify key benefits to the areas of Customer Service, Distribution Operations, IT systems and AMI Strategy and Visioning.

Subtask IA-2: AMI Interviews

Based on the information provided and the areas typically impacted by AMI, Excergy will perform a series of up to 6 interviews of City staff to gather a more detailed background and understanding of the City's objectives for the project. This series of 45-minute interviews will be performed over the phone and typically include managers for Customer Service, Metering, Distribution Operations, Finance, IT, and the project leader. These interviews will result in a set of objectives that will be presented later in the Visioning and Strategy workshop.

Subtask IA-3: AMI Customer Service Process Analysis

Excergy will lead a set of workshops for Customer Service in person that include a discussion of metering and customer service processes and policies and will quantify benefits and ways AMI will streamline operations and enhance service. Areas to examine will include on-cycle meter reading, high bill investigations, move-ins and move-outs, and collections. The workshops will also explore enhanced services facilitated by AMI, such as "watchdog" services. These understandings are essential to building a comprehensive business case.

We will benchmark such projections with the results obtained by other utilities that have implemented AMI.

We will provide a brief analysis of the data required to support specific customer service, operations, conservation, and non-revenue water (NRW) management functions. The data provided by AMI systems may be characterized by the frequency of meter sampling, the frequency of data transmission, latency (that is, the time it takes for a meter reading to be available to City employees), synchronization (for example, all readings at midnight), resolution, and reliability. The quality and quantity of data needed depends on the applications and functions (for example, “soft disconnects” or consumption profiling). In some cases, more discrete and immediate data enables higher quality value applications (e.g., leak detection).

Reductions in workload translate into labor savings. Our assessment of potential savings from AMI-based process improvements will enable us to suggest organizational and staffing adjustments. This would include reassigning staff (e.g., meter readers) and re-engineering certain functional areas (e.g., field service). Staffing in other functions such as leak detection, code enforcement and AMI system operation and maintenance might be increased.

Subtask IA-4: Distribution Operations Analysis

AMI can provide powerful new tools for nonrevenue water management. Data from acoustic leak detectors (ALDs) attached to service lines or valve stems (Figure 1) can be easily transmitted using the AMI system to provide the City with the earliest indications of leaks, when they cost less to repair and do less damage. With AMI, the City could also compare all of the consumption in a metered area over a specific period to net production, and focus NRW efforts on areas where the difference was relatively high or had changed.

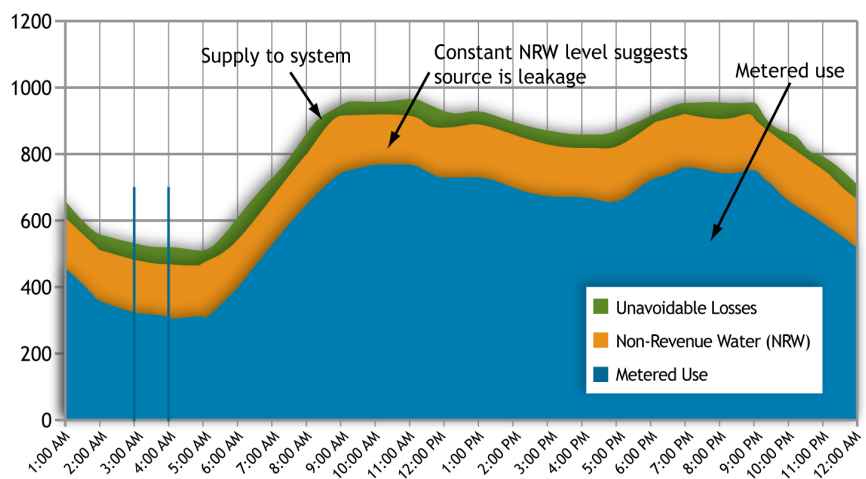


Figure 1. Production vs. Consumption Using AMI Data

AMI can be used to perform pressure zone non-revenue water assessments, since all of the meters in a pressure zone can be read at or close to the same time, and compared to production and storage figures for the same period. Large differences between production and consumption might demand priority attention. Changes in the difference between these two numbers can be monitored regularly. Analysis of the difference over the period could indicate whether the issue is leaks or meter inaccuracies. This analysis requires coordination among City production staff, IT staff, and AMI operators.

Excergy staff will conduct a workshop in person with the City’s distribution system managers to review the potential costs, savings and other benefits of implementing AMI based distribution system monitoring, and document the workshop. We will provide a brief assessment of the potential contribution to the business case.

Subtask IA-5: Current Technology & Systems Assessment

Achieving the full benefit of an AMI requires integrating the AMI system with other City information systems. For example, other processes and interfaces may automatically notify customers of anomalies via instant messaging, email or outbound dialing, based on account data in Harris. Linking consumption data from all the customers in a pumping district to production data from the SCADA system could (if applicable) help the City monitor and manage NRW.

Additionally, during the AMI field deployment, an AMI system may need to interact efficiently with several City information systems to manage the project and ensure accurate billing during the transition (Figure 2, next page). For example, meter and customer data must be generated out of the Harris and ServiceLink to create work orders, which in turn may be coordinated with the City’s asset management system. Photographs and geo-positioning coordinates are likely to be part of the meter asset database. Meter register ID numbers may be different than meter base ID



To enhance understanding and to provide a touchstone from other utility experiences, Excergy will arrange, support, and document site visits to other water utilities mutually agreed upon between Excergy and the City AMI project team. These visits will provide insight and additional exposure to help guide the development of the AMI strategy and vision, and to provide additional support to development of the financial modeling for the business case. Excergy support will include meeting minutes, prepared questions, and documented opinions of the visits.

Exergy will create a Customer Outreach Plan to effectively inform and engage the customers while minimizing the impact of resistors, by offering factual responses to concerns and options to meet their needs. For example, there are four known topics of concern that must be addressed in AMI projects: (1) price/rates; (2) privacy and data security; (3) health; (4) safety; (5) reliability and trust in the system. Although public resistance to AMI projects is minimal, recent experiences indicate that utilities must be prepared and address these issues nonetheless. The initial work in this subtask will feed into the High-level Customer Engagement and Communication Plan deliverable of Task II.A.

In addition, the industry has learned—and in some cases been mandated by governing bodies—that having a clear optional meter configuration policy is important. The details of that policy, including associated pricing and how it is referenced (i.e., “opt-out” versus optional, non-standard meter), are a key strategy developed at project outset. On the flip side, engaging those customers who are interested or even enthusiastic about the possibilities of new technology opts in early adopters and builds momentum for the entire effort. Excergy will facilitate discussions on the opt-out strategy to discuss pros and cons of various approaches for the City’s decision.

Subtask IA-8: Develop AMI Strategy

Excergy will work with City staff to create a vision for the future of AMI at the City (a graphical example is shown in Figure 3, next page). This vision will be based upon today's offerings and expected future enhancements to AMI as the industry grows.

Excergy will lead a workshop to review current and emerging AMI technologies and best practices, and their relative advantages and disadvantages for the City. We are familiar with every available technology and will suggest those that appear to be most aligned with the City's objectives and operating environment.

Excergy will also work with the City to develop strategies for deployment, including an evaluation of the meter population, meter deployment strategies, and AMI hosting options.

Based on the above efforts and the key strategies developed, we will develop draft recommendations regarding:

- ▶ How should the City build on or refine previously deployed AMI pilots
- ▶ What new technologies, if any, are appropriate for the City
- ▶ The rate(s) of deployment, and in particular, acceleration over normal meter replacement
- ▶ Project management and implementation support for AMI field deployment
- ▶ Prerequisites in such areas as information technology, staff organization, and customer service practices, etc.

We will present these draft recommendations in a memorandum, and review it with the City's core team. Based on feedback and discussions with City staff, we will revise the recommendations memorandum.

TASK IA DELIVERABLES

- Data Request (Subtask IA-1)
- Bi-weekly Status Reports (Subtask IA-1)
- Periodic updates for executive management and applicable governing board stakeholders (Subtask IA-1)
- AMI Customer Service Process Analysis memo (Subtask IA-3)
- Distribution Operations Analysis workshop results memo (including impacts to business case) (Subtask IA-4)
- Site Visit Memorandum (Subtask IA-6)
- AMI Strategy Memorandum (Subtask IA-8)

TASK IA WORKSHOPS

- Phone Interviews

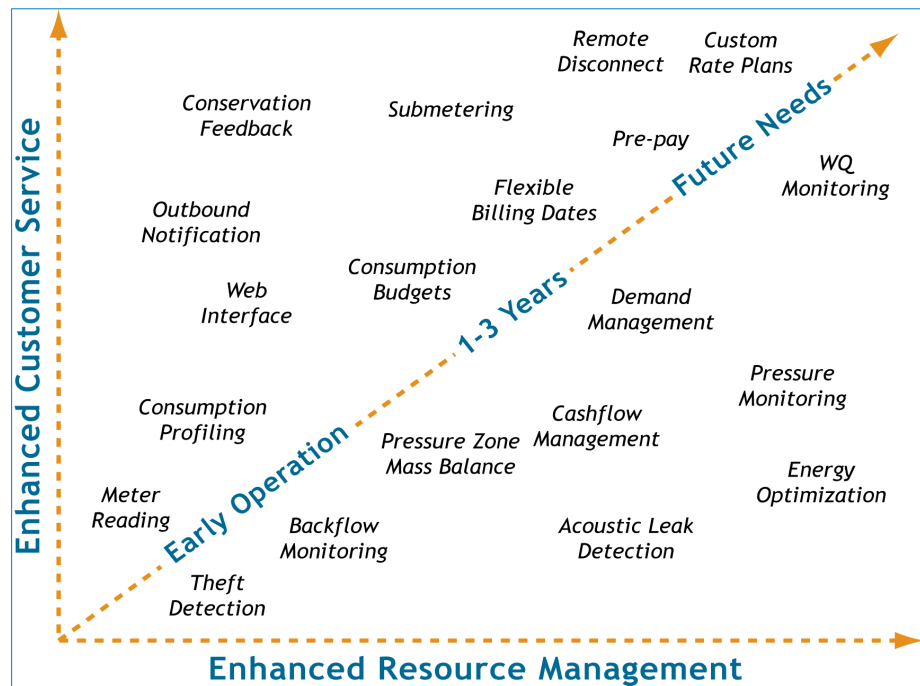


Figure 3. AMI Roadmap

- Customer Services process workshop
- Distribution Management workshop
- IT systems and integration workshop
- AMI Technology Overview Workshop
- AMI Strategy and Vision Workshop
- Site visits support up to 3 utilities

CITY EFFORT TO SUPPORT TASK 1A

- The Kickoff Meeting will be approximately two hours. The ongoing effort to schedule workshops and interviews will be approximately one to two hours per task, depending on the final number of interviews in the schedule.
- City staff will spend approximately two days to gather and email the requested information to Excergy
- Support Workshop sessions and site visits as needed

Task 1B: Financial Analysis

Following the efforts of the preceding tasks to gather preliminary cost information and potential business case benefits, additional data points will likely be needed to complete the financial analysis development. We will input into our model major technology and deployment scenarios that incorporate a number of variables (project start date, differential inflation rates, component/labor costs, equipment lives, deployment timeline, etc.) that can be analyzed for sensitivity. The model will calculate cash flow in each year of the planning period, present value, and other measures.

While economic/financial models deal well with only hard, direct costs and benefits, a business case must also consider soft and indirect costs and benefits, such as enhanced customer satisfaction and confidence, and reduced environmental impact. As part of the business case, we will include an explicit review of the non-economic factors. With the City's team, we will review Triple Bottom Line objectives, and identify indicators for each component (social, environmental, customer service, employee development, etc.). We will endeavor to describe and evaluate the significant direct and indirect impacts of AMI strategies in these areas, focusing on the relevant indicators.

Direct Benefits

New Revenue

- ▶ Reduced read-to-pay time
- ▶ Monthly billing improves cash flow
- ▶ New customer services (usage information, selectable bill date, selectable bill frequency, bill aggregation, on-demand bill, customized bill, meter reading for other utilities, analysis/ conservation services, prepayment services)

One Time & Short Term

- ▶ Improved meter accuracy
- ▶ Sale of used meters (salvage)
- ▶ Ending / postponing Meter change outs
- ▶ Tamper detection and correction

Capital Reductions

- ▶ Load research equipment
- ▶ Meter reader vehicles
- ▶ Meter inventory

Reduced Expenses

- ▶ Reductions in Leak Adjustments
- ▶ Customer service Support (bill inquiries reduced, faster inquiry resolution)
- ▶ Field Services (reduced trips for customer site visits, remote service on/off)

- ▶ Billing (reduced manual processing, estimated bills, pre-bill audits, postage)
- ▶ Metering & reading (on-/off-cycle reads, meter reader safety/liability, meter reader training, reduced meter testing, direct access settlement, load research metering)
- ▶ Distribution operations (System Audits, Pressure Management, Quality Monitoring)

Avoided Losses

- ▶ Reduced non-billable consumption (leak detection/mitigation, tamper deterred, unoccupied premises)
- ▶ Distribution system optimization (pump station pressure/flow, end of line pressure)

Indirect Benefits

Customer Service Benefits

- ▶ Diverse customer services
- ▶ New rates possible
- ▶ Increased responsiveness to customer
- ▶ Less intrusive to customer

Strategic Benefits

- ▶ Storage & well monitoring
- ▶ Conservation program monitoring/enforcement
- ▶ Distribution automation
- ▶ Greater approved return
- ▶ Improved costs and pricing basis
- ▶ Improved load forecasting & system planning
- ▶ Improved system reliability
- ▶ Market segmentation & targeting
- ▶ Improved public/regulatory relations
- ▶ Improved customer satisfaction

TASK I.B DELIVERABLES

- Draft financial metrics, direct, and indirect benefits model

CITY EFFORT TO SUPPORT TASK I.B

- There will be effort to collect data to support the City's component of the cost and benefit analysis. Excergy will provide industry metrics for many of the cost components; the City will give final approval on the actual values used.

Task I.C: Results of Study

We will compile the components developed in the previous subtasks into a Draft AMI Feasibility report. Most of the elements of this report will have already been reviewed by the City's staff in prior subtasks. The report will consolidate this work to comprise an organization-wide analysis of all costs and benefits of installing AMI. After a final review with staff, we will incorporate any appropriate changes and finalize the report.

This deliverable will consist of two documents. The first document will be feasibility document of the AMI project and financial analysis. It will include:

- ▶ An overview of AMI and documented results of the process analysis
- ▶ A review business case inputs
- ▶ A detailed capital cost estimate of the project including:
 - Meter/Module Costs
 - Meter/Module Installation Costs (Internal labor versus third party)
 - AMI Communications Infrastructure Costs for field and backhaul

- AMI Communications Infrastructure Deployment Costs (installation costs, site preparation and asset management, site lease negotiations)
- Software Systems Implementation (license and implementation costs)
- IT infrastructure
- Project implementation personnel
- Other outside consulting
- ▶ An O&M estimate reflecting the life-cycle of the project including:
 - Operations personnel
 - Communications equipment recurring costs (cellular, site lease payments, etc.)
 - Maintenance fees
- ▶ A modeling of all hard benefits (benefits that can be monetized)
- ▶ An overall ROI of the project based on present values of all costs and benefits
- ▶ Various charts and graphs to be used in other documentation and presentation materials

The second document will be a set of PowerPoint slides that utilize information from both the spreadsheet model and the Word document to provide presentation support for the study.

The business case analyses would be reviewed in a one-day workshop. Based on comments from the City's team, we would revise the model analyses where appropriate. The analyses and accompanying narrative will form the core of a business case report.

TASK I.C DELIVERABLES

- Draft and final Feasibility Study
- Onsite review of the Feasibility Study with the project team
- Summary feasibility Study presentation (PowerPoint)

CITY EFFORT TO SUPPORT TASK I.C

- Onsite review of the business case will be one day. Estimate two-three days to wrap the loose ends identified during the review.
- The project team to review and comment on the draft deliverables. One person on the project team will be responsible for consolidating all comments/edits.

Part II – Planning & Acquisition Services

Task II.A: Support Pilot Scope and Plan

Excergy will work with the City team to determine criteria for the pilot, including the level of effort, extent of technologies deployed—for example, what part of integration needs to be developed and what part can be a manual effort, yet provide data points for analysis of success. Excergy recommends that an initial test area concept be employed rather than a Pilot. The alternative approach will save the City expense and schedule and be just as effective.

Excergy will also facilitate the process of determining the deployment/installation activities for the pilot. Consideration will be given to what part of the pilot deployment should be outsourced and which should be staffed internally to determine an economical, yet effective pilot.

Excergy will also include a Project Plan, including all pilot tasks from scope design to pilot analysis. This plan will be further refined and utilized in the development for the overall project plan.

Additionally, Excergy will review the use of analytics (including geographic/spatial component) to measure various aspects of the vendor success in pilot. This includes generating analytics on % of meter reads delivered, round trip timings for remote commands (such as On-Demand Read), and events/alarms from the meters/modules (Figure 4). Excergy has experience in implementing these solutions (whether our own or 3rd party) on several prior projects.

Lastly, one key consideration will be which rates and/or meter types will be included in the pilot. Experience has shown that the level of effort to include all meter types and rates expands the pilot to a point of diminishing returns of effort.

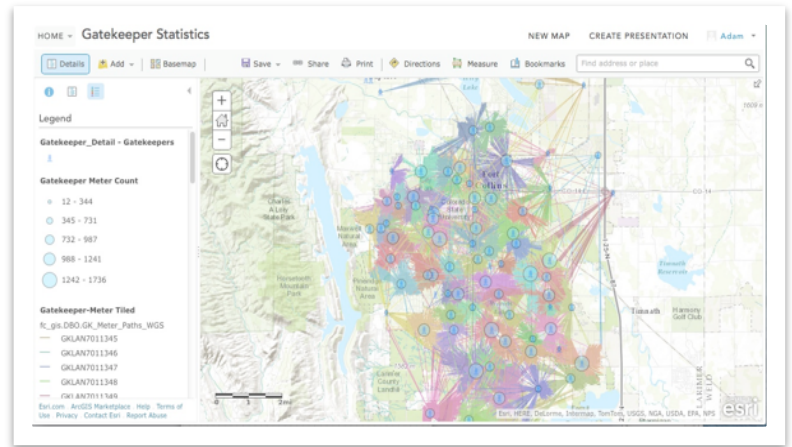


Figure 4. Example of Communications Network Performance Data

TASK II.A DELIVERABLES

- Scope of work for the Pilot Project, including pilot success criteria, technologies to be studied, deployment efforts defined, pilot specific project plan and estimate
- High-level Customer Engagement and Communication Plan
- Pilot Project Management Services
- Weekly Status Report

CITY EFFORT TO SUPPORT TASK II.A

- Support and Review of Pilot Results
- Participation in all activities as necessary

Task II.B: AMI Requirements

Excergy will facilitate development of the City's AMI RFP requirements using Excergy's working list of requirements and templates for an AMI system and meters, procurement, project management, and system implementation and integration support. Excergy will develop specific requirements, using background information the City can provide to improve the vendors' responses, and your procurement and/or implementation approach. Examples of possible discussion topics are:

- ▶ A discussion of the current AMI marketplace, trends, and related issues such as standards, interoperability and obsolescence as they either support, or contradict, possible AMI drivers.
- ▶ Various customer service and operational applications enhanced or enabled by AMI, such as on- and off-cycle meter reading, soft disconnects and customer notifications, demand response, and their data requirements.
- ▶ Integrations and legacy system changes required to support these systems.
- ▶ New and emerging ancillary technologies and their implications for business operations and customer service.
- ▶ The role of data analysis in capturing the benefits of AMI.
- ▶ Ownership and financing options.
- ▶ Alternative implementation and deployment strategies, such as:
 - Geographic deployment of one section of the service area at a time.
 - Installation in concert with normal meter age change.
 - Installation of fixed network data collectors in the service territory, with initial endpoint installation for commercial and specialty customers, and other large meters.

- Opportunistic deployment, such as on all new construction, account turnover, or when a field customer service visit is required.

Following this assessment, Excergy will develop an initial, prioritized list of recommendations for your consideration. Excergy will facilitate a work session to review these with The City staff to capture requirements from all City identified stakeholders.

TASK II.B DELIVERABLES

- AMI Requirements for a Vendor RFP

CITY EFFORT TO SUPPORT TASK II.B

- Participation in workshops and review of draft documents.

Task II.C: Technology, Vendor, and Service Level Assessment

As part of a one-day workshop, Excergy will review current and emerging AMI technologies and best practices, and their relative advantages and disadvantages for the City. We are familiar with every available technology and will suggest those that appear to be most aligned with the City's objectives and operating environment. Workshop topics also will include:

- ▶ The current AMI marketplace and trends, and related issues such as standards and obsolescence.
- ▶ Communications and data backhaul systems.
- ▶ Interoperability between the City's Sensus meters and major AMI vendor offerings.
- ▶ Customer service and operational applications enabled by AMI, and their information requirements, as well as characteristics of AMI data (frequency, resolution, latency, success rate, etc.).
- ▶ Impact discussion centered on meter data management software, integration issues between an AMI system and the City's billing system, new customer interfaces (portals), and how AMI fits into the utility's IT architecture and planning.
- ▶ The potential role of AMI in supporting The City's capital efficiency objectives and NRW management programs.
- ▶ Advances in water metering technologies, including electromagnetic and ultrasonic meters. The new meters raise issues of compatibility, reliability, and interoperability with AMI systems, and have ramifications for procurement strategies.
- ▶ Available acoustic leak detection (ALD) technologies and their interoperability with AMI systems.
- ▶ Other emerging technologies, such as AMI- or meter-based sensors (e.g., for water pressure) and actuators (e.g., remote control shut-off valves), and their implications for business cases.
- ▶ Possibilities for collaboration with other utilities (e.g., gas and electric utilities), including economies of scale and institutional considerations.
- ▶ Possible implementation and deployment strategies.

Excergy will prepare a workshop review document to capture the opportunities and concerns of the project team for incorporation into the feasibility study.

TASK II.C DELIVERABLES

- Workshop review document.

CITY EFFORT TO SUPPORT TASK II.C

- Participation in workshops.

Task II.D: Project Implementation Planning

AMI implementation involves several coordinated dimensions. Astute implementation planning can mean the difference between a successful, well-accepted project and a poorly performing system. The integrity of the information created during AMI deployment is critical to employee and customer acceptance.

Major elements of successful AMI implementation planning entail: (1) a project schedule and management plan to govern contract management, field inspection, troubleshooting, data audit and acceptance testing; (2) a network deployment plan; (3) an installation control system to ensure data is captured correctly and invoices are correct; (4) a human resources plan to manage the transition of employees during and after the project; (5) a meter reading transition plan to ensure all meters are read smoothly as routes are converted to AMI; (6) a communications plan for customers, employees and the general public; (7) an IT integration plan covering key interfaces and initial applications; (8) an acceptance test plan for software, components and the overall system; (9) a training plan for all utility employees involved in installation, managing contractors, operating and maintaining the system, dealing with customers during installation and using the system data; and (10) a policy and procedure review, to ensure the City has the policies needed to ensure effective AMI deployment such as compelling access, handling inactive or delinquent accounts, and reconciling consumption concerns as old meters are replaced.

Implementing AMI requires coordination of thousands of work orders with customer service and billing operations. The integrity of the information created during AMI deployment is critical to project success. Implementation planning includes developing a deployment schedule, creating project control systems, establishing IT interfaces, enhancing field to office communications and redeploying staff. Several City departments, and multiple teams, would be involved in AMI implementation planning.

Based on the recommended strategies and business case, we will help the City's team prepare a draft project schedule in the form of a Gantt chart that shows the key tasks and milestones for project procurement and deployment. This will help identify the points at which monetary and staffing commitments are required. The draft implementation plan is usually revised once a vendor is selected and the particulars of the system are known.

The suggested project schedule will span from the start of procurement through deployment. At each stage, we will recommend the functions required for project management (for example, vendor selection, field inspections, programming, acceptance testing, etc.) and which functions could be outsourced, provided by the vendor, or should be handled by City staff.

TASK II.D DELIVERABLES

- Implementation considerations workshop; draft implementation planning memorandum.
- Draft project schedule

CITY EFFORT TO SUPPORT TASK II.D

- Participation in workshops

Task II.E: Assist with Creation of RFPs and Distribute to Vendors

Excergy has significant experience assisting utilities in AMI procurement activities, which means that we have the capability to rapidly assist The City by leveraging past applicable work. Deep knowledge of the vendor community enables current knowledge of relevant, leading edge performance capabilities. This depth of knowledge of specific vendor solutions in practice—coupled with complete vendor independence—allows us to produce superior results on behalf of our clients.

Excergy will work with the City's procurement and legal staff to prepare the RFP package, which will incorporate the appropriate instructions to bidders and general and specific terms and conditions. After the RFP is circulated for comments, Excergy will assist with revisions.

Based on the experience of many utilities, we recommend that a draft contract be incorporated in the RFP. This streamlines the procurement process, gives the City greater negotiating leverage, and can result in considerable savings. Through participating in numerous AMI contract negotiations, we have learned how to establish enforceable

contract provisions that protect the utility. We will help the City prepare the draft contract. Important AMI contract considerations include:

- ▶ **Pricing protection.** To deploy the AMI system in phases, The City needs limits on future price increases.
- ▶ **Product and service warranties.** Extended warranties and system failure provisions may be important.
- ▶ **Performance standards.** Installation accuracy, read success rate; defaults and opportunities and requirements to cure.
- ▶ **Component and final system acceptance criteria and payment provisions.** Payments are made for confirmed working installations.
- ▶ **Service level agreements.** If the City opts for software or network management services.
- ▶ **M/WBE Inclusion Plan.** Documentation of potential subcontracting opportunities during the deployment phase.

Excergy will also help facilitate a MWBE Opportunities Workshop where Greensboro will present and highlight these subcontracting opportunities and invite potential MWBE contractors.

TASK II.E DELIVERABLES

- Documentation of potential subcontracting opportunities during the deployment phase.
- Support a MWBE Opportunities Workshop
- RFP document package

CITY EFFORT TO SUPPORT TASK II.E

- Review and approve all of Excergy's deliverables
- Support AMI RFPs development and review

Task II.F: Develop RFP Response Evaluation Tool

Excergy will facilitate establishing weighted evaluation criteria including responsiveness to technical requirements, total life-cycle cost, and qualifications of the respondents.

Working with the City's team, we will develop a brief guidance document covering the AMI procurement process and incorporating the evaluative criteria. The process adopted should reflect the City's standard procurement procedures adapted to the nature of the AMI project.

By using established Excergy templates for proposal evaluation and risk assessment, Excergy will help the City develop detailed technical score sheets for the RFP with scoring criteria and weights for each requirement. Scoring criteria reflects criticality, type, and relevance of each requirement. Weights reflect the relative importance or value of each requirement with respect to the rest, with traceability to the benefits impacted by the requirement.

A key area of the vendor proposal evaluation is the establishment of critical qualification or vendor pass/fail gates. Excergy will help the City's team identify these critical requirements within the RFP specifications. Another key area of vendor proposal evaluation is risk assessment. Risk assessments typically cover technology risks (bleeding edge or obsolescence), quality of delivery, vendor company viability and commitment to industry and product, project cost and schedule, and ongoing maintenance and support. Our vendor proposal evaluation process includes methodical assessments of these risks.

Using Excergy's existing evaluation methodology and framework ensures a disciplined, fair, and consistent evaluation process that is fully documented, traceable and defensible, providing substantial credibility to any regulatory agency.

TASK II.F DELIVERABLES

- Scoring and risk assessment workbooks, including Identification of critical (pass/fail) requirements or gates
- Demonstration / Interview/ Reference Scripts

CITY EFFORT TO SUPPORT TASK II.F

- Review and approve all of Excergy's deliverables

Task II.G: Evaluate Vendor Responses

As part of the selection process, we will guide the City's evaluation team in a thorough review of the proposals. In its evaluation of technical responses, the City's review team should not be prematurely influenced by price; we will inspect pricing tables to make sure that they are complete and responsive. If there are a sufficient number of proposals, we expect to create a short list. Excergy will prepare demonstration scripts and lists of questions to make sure vendors focus on the City's major concerns in their presentations. We will attend the vendor demonstrations and assist in responding to follow-up information requests.

Should City staff decide to visit selected sites where the short-listed vendors have implemented systems, Excergy will help arrange the visits and prepare questions and agendas.

We will assist the City's team in evaluating the proposals based on the written documents, vendor presentations, references, and additional due diligence (e.g., "problem" deployments). Excergy will analyze the life-cycle costs associated with each proposal, and facilitate the project team's final selection. Excergy will provide a summary score sheet that combines the detailed technical proposal evaluations, the reference checks and interviews, and the risk assessments.

TASK II.G DELIVERABLES

- Attend the vendor demonstrations and assist in responding to follow-up information requests
- Analysis worksheet of the life-cycle cost and normalized costs

CITY EFFORT TO SUPPORT TASK II.G

- Lead the internal selection process with Excergy assistance

Task II.H: Document Recommendations on Vendor Responses

Consistent with the solicitation framework, selection criteria, and results of interviews and demonstrations developed previously, Excergy will summarize and present the scoring and rank order of the responses based on the established standards for final selection. It is expected that the City will then reach a conclusion as to the successful respondent(s) based on Excergy's facilitation around scoring.

TASK II.H DELIVERABLES

- Scoring worksheet with ranked order of vendors based on selection criteria

CITY EFFORT TO SUPPORT TASK II.H

- Lead the internal selection process with Excergy assistance
- Finalize the selection with Excergy assistance

Task II.I: Assist with Vendor Contract Negotiations

Excergy will assist the City with contract negotiations with the selected vendors, from establishing a negotiations strategy through negotiations and contracting. Excergy personnel have negotiated AMI contracts for dozens of clients and will use lessons learned to avoid pitfalls and leverage experience gained from actual implementations on how contract terms can ensure successful implementations and protect the City's interests, if needed. Excergy will provide guidance to the City's project team in strategizing for contract negotiations, and participate in key contract negotiation meetings and contract review, if needed. Excergy's Vendor Negotiations approach involves:

- ▶ Developing Vendor Negotiation Strategy
- ▶ Conducting initial preparation of negotiations
- ▶ Supporting SOW and Contract negotiation including Service Level Agreements (SLAs)
- ▶ Executing Vendor Contract(s)

Since the RFP and vendors' responses are detailed, contract negotiations for AMI projects typically focus on installation protocols, performance requirements, defaults and cures, and data collector locations. The Scope of Work (SOW) attached to the draft AMI contract should convert all the promises of the proposal into specific provisions and deliverables. It should cover equipment delivery, training, "standard" and "non-standard" installations, acceptance criteria, installation data management and quality control, invoicing, customer communications (including any appointment scheduling), workload scheduling, and performance reporting. A Project Schedule exhibit should be attached to the contract. The City needs to rely on installations proceeding according to this schedule.

Excergy suggests that details of installation procedures, customer communications, project organizational charts and contact information, meeting schedules, project report formats, etc. be incorporated in Detailed Project Procedures document rather than the contract Scope of Work. Minor adjustments to procedures and schedule are inevitable, and the former is easier to modify.

With adequate pre-negotiation planning and concentrated effort, contract negotiations can be concluded quickly, although review and approval will take additional time. During this interval, the detailed project procedures can be finalized, and preparations for implementation can commence.

Excergy will review the final contract and ensure adherence with all previously developed criteria, requirements, and processes. Excergy will also assist City staff in preparing presentations to management, including use case studies and other experience to help explain decisions and rationale. As part of this task, Excergy will share lessons-learned in other negotiations and work diligently to develop a vendor contract that will achieve the desired outcomes.

TASK II.I DELIVERABLES

- Vendor Scope(s) of work with firm pricing
- Presentation to Management or Boards (1 trip / 1 day allowance)
- Complete legal-reviewed, signature-ready contracts

CITY EFFORT TO SUPPORT TASK II.I

- Review and approve all of Excergy's deliverables
- Lead the internal selection process with Excergy assistance
- Finalize the selection with Excergy assistance

Subconsultants

Excergy's team will include Simon Resources, Inc. of Forsyth County, a woman owned business enterprise and All Systems Restored HVAC and Electrical LLC of Greensboro NC, a minority owned business enterprise. Simon Resources will provide support on a) the AMI Customer Service Process Analysis and b) the Customer Outreach Plan tasks. All Systems Restored will provide support on the a) Project Management and Review of Existing Information, b) Current Technology & Systems Assessment, c) Pilot Scope and Plan, and d) Project Implementation Planning tasks.

