

ADVANCED METER PROGRAM: RFP 1837 – FOR ADVANCED METERING INFRASTRUCTURE AND METER DATA MANAGEMENT SYSTEM

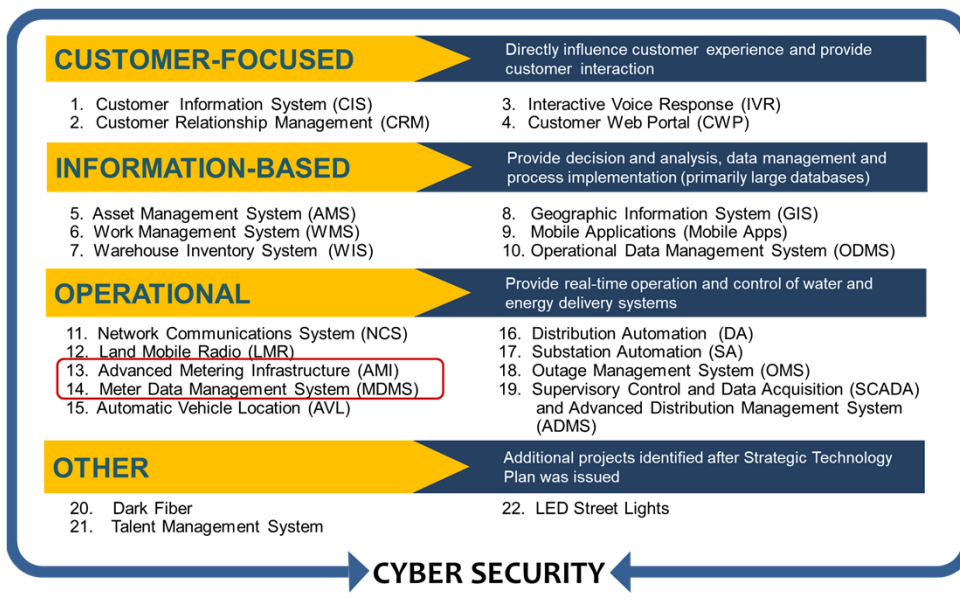
Riverside Public Utilities

Board of Public Utilities
January 28, 2019

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BACKGROUND



ADVANCED METERING INFRASTRUCTURE

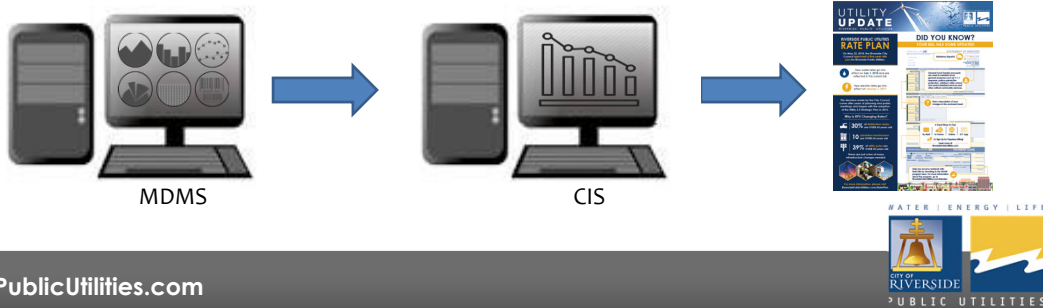
AMI is an integrated system of **smart meters**, **communications networks**, and **data management** that enables **two-way communication** between the utility and customers. It provides both utility staff and customers with near **real-time information** about energy usage within our distribution system.

DISCUSSION

1. AMI technology fundamentally changes the Utilities' meter-to-cash process.
2. AMI technologies will significantly improve the measurement and management of utility assets within the distribution system.
3. AMI will improve customer service by providing customers with higher resolution data to make more informed decisions about energy usage.

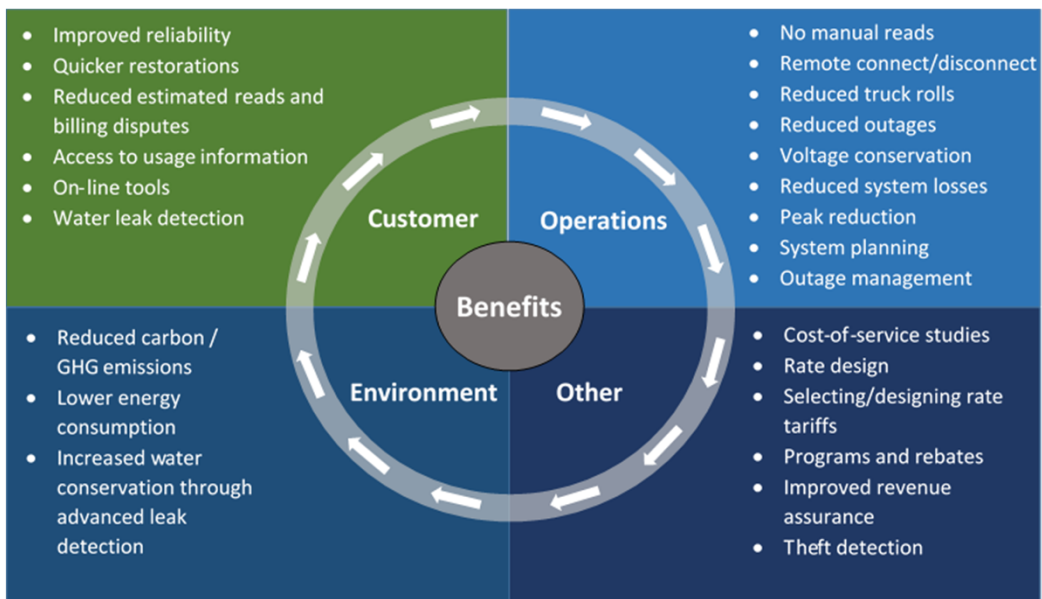
METER DATA MANAGEMENT SYSTEM

An MDMS **validates, estimates** and **edits** the meter data to ensure the data is **accurately transferred** to the Customer Information System (CIS) for billing.



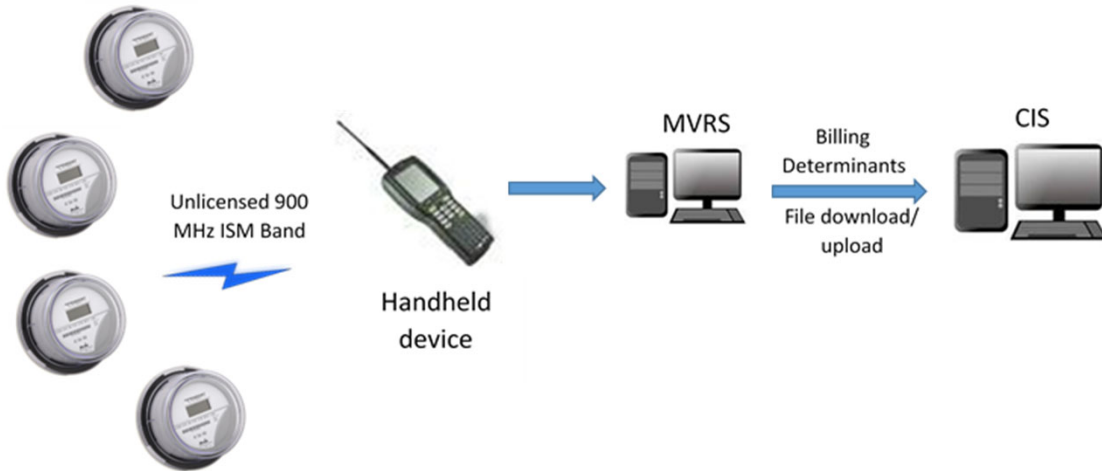
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PROGRAM BENEFITS



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CURRENT STATE – METERING PROCESS

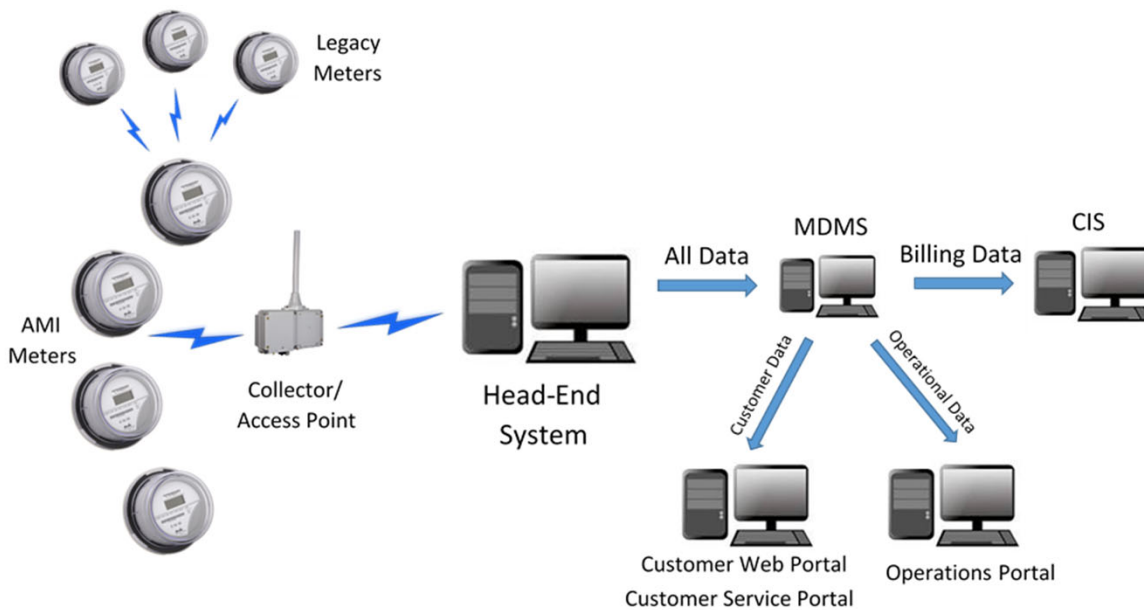


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AMI FUTURE STATE (HIGH-LEVEL)



ADVANCED METERING PROGRAM

1. AMI

- a. 25,000 electric AMI meters
- b. Communication devices
- c. Hosted software solution
- d. Related equipment (such as meter test devices)



2. MDMS

- a. Hosted software solution
- b. Integration with CIS and other systems
- c. Related equipment (such as firewalls)

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PROGRAM APPROACH

1. **Primary Goal:** maximize current investment in ERT meters.
2. **ERT Overlay:** install fixed network utilizing new AMI meters and collection devices to collect data from the existing meters, as well as provide new AMI functionality.
3. **Phased Approach:** Alpha and Beta Proof-of-Concepts, before rolling out Full Implementation.

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ALPHA PROOF-OF-CONCEPT

1. 100+ electric AMI meters
2. All account types
3. Data collectors
4. Hosted AMI and MDMS
5. AMI to MDMS integration
6. Validation of benefits & function



COMMUNITY / CUSTOMER EDUCATION

1. Communicate Benefits
2. Minimize Concerns
3. Build Key Messages
4. Create Ambassadors
5. Ensure Information Accessibility
6. Provide Frequent Board/Council/Management Updates



BETA PROOF-OF-CONCEPT

1. Install all communicate network devices
2. Install additional meters
3. Convert to fiber communication back-haul as needed
4. MDMS to CIS integration
5. Configure data flows and portals (Customer, Customer Service, Electric Operations, Electric Engineering)
6. Determine additional automation, smart city, and add-on programs

FULL IMPLEMENTATION

1. 25,000 AMI meters installed to create a full AMI network
 - a) 11,000 Commercial and Industrial
 - b) Remaining will be residential at strategic locations
 - c) Collecting data from all "ERT" meters
2. Fully automated meter reading process (no longer rely on Meter Readers)
3. Remaining electric meters (approximately 85,000) to be replaced based on replacement cycle determined by Energy Delivery and available future budgets

PROCUREMENT

AMI ONLY SOLUTION	EVALUATION RANKING
Tantalus Systems, Inc.	1
Nighthawk	2
MDMS ONLY SOLUTION	EVALUATION RANKING
Harris Utilities - SmartWorks	1
Omnetric Group	2
WATER AMI ONLY SOLUTION	EVALUATION RANKING
Aqua-Metric / Sensus	1
Zenner Performance Meters, Inc.	2
WATER METER ONLY SOLUTION	EVALUATION RANKING
Delta Engineering Sales	N/A
Core & Main	N/A

ANTICIPATED PROJECT COSTS

Category	18/19	19/20	20/21	21/22	22/23	TOTAL
Tantalus AMI System	\$140,000	\$7,127,644				\$7,267,644
SmartWorks MDMS	\$47,918	\$595,732	\$319,697	\$395,665	\$395,665	\$1,754,677
Innovation & Technology Labor	\$50,000	\$230,000	\$20,000	\$0	\$0	\$300,000
3rd Party Integrations (i.e. CIS)	\$100,000	\$275,000	\$0	\$0	\$0	\$375,000
Meter Test, IT and other Equipment	\$150,000	\$100,000	\$0	\$0	\$0	\$250,000
Customer Engagement Campaign	\$150,000	\$150,000	\$0	\$0	\$0	\$300,000
Contingency	\$22,082	\$77,918	\$835,000	\$0	\$0	\$935,000
TOTALS:	\$660,000	\$8,556,294	\$1,174,697	\$395,665	\$395,665	\$11,182,321

RECOMMENDATIONS

That the Board of Public Utilities:

1. Award RFP 1837 to and approve the TUNet Network Systems Agreement with Tantalus Systems, Inc., for an Electric Advanced Meter System, advanced meters, communications devices, related equipment, implementation services and hosting fees in an amount not-to-exceed \$7,267,644 for a two-year term, with the option to extend for an additional three-year term;
2. Award RFP 1837 and approve the Software as a Service Agreement with SmartWorks, a division of N. Harris Computer Corporation, for a Meter Data Management System, related equipment, implementation services and hosting fees in an amount not-to-exceed \$1,754,677 for a five-year term;



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RECOMMENDATIONS, CONT.

3. Approve an increase to Work Order No. 1707248 by \$660,000 for the total amount of \$3,660,000 for Fiscal Year 2018-19 for the first phase of implementation of an Electric Advanced Meter System and Meter Data Management System; and
4. Authorize the City Manager, or his designee, to execute the agreements, including making minor non-substantive changes, and to sign all documents and instruments necessary to complete the transactions.



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