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**Resolution No. 2018-01**

Of the

**Fox Canyon Groundwater Management Agency**

**A RESOLUTION SPECIFYING THE REQUIREMENTS FOR INSTALLATION,  
OPERATION AND MAINTENANCE OF ADVANCED METERING  
INFRASTRUCTURE DEVICES**

**WHEREAS**, The Fox Canyon Groundwater Management Agency Ordinance Code specifies certain requirements for the installation and use of flowmeters; and

**WHEREAS**, The Fox Canyon Groundwater Management Agency Board of Directors on January 3, 2018, adopted an Ordinance to Require That Flowmeters Be Equipped with Advanced Metering Infrastructure (AMI) Telemetry (AMI Ordinance); and

**WHEREAS**, Pursuant to the AMI Ordinance, technical standards and specifications for the installation, operation and maintenance of the AMI device to be installed on flowmeters shall be set forth in a resolution adopted by the Agency.

**NOW, THEREFORE, IT IS HEREBY RESOLVED AND ORDERED THAT:**

**SECTION 1. Applicability**

This Resolution applies to all groundwater extraction facilities that are required by the Agency Ordinance Code to be equipped with a flowmeter. The operator shall install, operate and maintain the AMI device in accordance with this Resolution.

**SECTION 2. Definitions**

- A. Accuracy** - The degree to which the result of a measurement conforms to the established value.
- B. Advanced Metering Infrastructure (AMI)** - An architecture for automated, two-way communication between a meter and a central data center via cellular, radio, or satellite communication systems to acquire real-time or near real-time groundwater-extraction data.
- C. AMI Field Hardware** - All the AMI related components installed in the field, including the Meter Interface, Remote Telemetry Unit (RTU), battery and solar panel or charger, and related sensors for feedback and water usage monitoring.
- D. AMI System** - The entire AMI system that includes all field hardware, communication network, central database and a user interface.

- E. Agency** - The Fox Canyon Groundwater Management Agency (FCGMA).
- F. Application Programming Interface (API)** - An API specifies how system hardware and applications should interact.
- G. Central Database** -The centralized database that aggregates meter data from an AMI Field Hardware to be used by applications including: groundwater management, computerized maintenance management, and other relevant management systems. The central database can be accessed by multiple users and is a key resource for managing large quantities of meter data.
- H. Feedback Sensors** - Any combination of sensors to monitor extraction of water, or pump status, including amperes, revolutions per minute of output shaft, etc.
- I. Meter** - The metering equipment required by FCGMA ordinance to quantify the volume of water extracted from a well by well owners / well operators within the jurisdiction of the Agency.
- J. Meter Interface** - The AMI Field Hardware that directly records the volume of water measured by the meter or register. This function can be performed through a variety of methods including, but not limited to optical sensor or magnetic signals.
- K. Remote Telemetry Unit (RTU)** - The component that records and stores meter readings at prescribed intervals and transmits them to the central database. The RTU may also include a battery, antenna, solar panel and other necessary appurtenances. RTUs can be programmed to calculate and trigger alarms based on operational conditions such as battery life, no-flow, backflow, and tampering.
- L. Register** - The data-reading unit or mechanical display, usually situated on top of the water meter. Digital registers record the water flow measured by the meter and can convey that information to the RTU.
- M. Tamper Detection** - Sensors and/or methodology to detect unauthorized modifications of any of the AMI field hardware. Tampering of the AMI components includes wire cutting, meter tilt, register removal, prolonged no flow periods, or any other event detectable by the equipment.
- N. User** -The well owner or well operator.
- O. User Interface** - A web browser or mobile application that provides data access to well owners/well operators and the Agency. Some portals may provide additional functionality such as alert settings, notifications, and/or usage profiling.

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**SECTION 3. Well Production Requirements for Water Purveyors with Existing SCADA Systems or Other Automation Platforms**

- A. Each purveyor shall maintain, operate, and report production utilizing their existing automation platform.
- A.B. Each production meter shall have manual read capability.
- C. Meters shall be calibrated and certified once a year.
- D. Installations shall provide two methods verifying proper meter and pump operation. There are to be "Pump-ON & Pump-OFF" recordable indicators/sensors, and instantaneous & accumulative flow indication on all well installations, ensuring that flow is being recorded when the well is in production mode. Control logic should be such that the well is "locked out" (shut-off) if the pump is running in production mode and there is no flow indication.
- E. Control programming logic shall provide indication of reverse flow and no-flow detection during pump operation.
- F. The purveyor shall store all meter flow data and well (pump) operation data for two years.
- G. Data on flow and data verifying pump operation shall be collected and reported on a monthly basis. Monthly data shall be uploaded to the FCGMA by the 10<sup>th</sup> of the following month.
- H. The purveyor shall allow a FCGMA employee to inspect the site upon a 24 hour notice.

**SECTION 4. AMI Device Performance and Installation Requirements For Well Operators Without Existing SCADA or Other Automation Platforms**

- A. AMI field hardware enclosures shall be outdoor rated at IP66 or greater protection, and shall be capable of functioning accurately between an ambient operating temperature range of -20 degrees Celsius (-4 degrees Fahrenheit) to 55 degrees Celsius (131 degrees Fahrenheit).
- B. AMI field hardware shall allow for access for manual reading of the meter.
- C. The RTU shall be capable of storing a minimum of one month or 4 MB of meter data on internal data storage, including date and time stamps.
- D. The AMI modules shall be designed to have a minimum battery life of 5 years, if applicable.
- E. Waterproof in-line connectors are permissible to facilitate the installation of the RTU.
- F. The Meter Interface shall be secured to the meter main case by a device that would prevent unauthorized removal from the register. To facilitate emergency maintenance of the irrigation system no tool shall be

required to remove the register that is not available at most full-service hardware suppliers.

- G.** The AMI System shall have at least two methods of detecting pump operation including recording the total usage from the meter. The RTU shall record increasing total consumption and data from feedback sensors such as pump amperage consumption, revolutions per minute of output shaft, or water pressure.
- H.** The AMI system communication methods shall be certified to comply with all applicable Federal Communication Commission (FCC) Rules.
- I.** The RTU shall upload the information to the central database a minimum of twice per day in a format that will be specified by the FCGMA.
- J.** The RTU must support remote firmware updates to reduce system maintenance time by eliminating the need to manually perform the update function at each locale.
- K.** The RTU date and time settings shall be updated to match the Central Database to within 5 seconds at least once per day and all sensors detecting pump operation.
- L.** All AMI devices installed on existing meters shall be capable of correlating the meter output reading to the value obtained by AMI device(s) within an accuracy range of  $\pm 5\%$  within a six month validation period.

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- M. The AMI system shall employ timestamped actionable alerts for the items below:
  - a. No water flow detected during pump operation.
  - b. Reverse Flow/ Backflow detection -when provided by an existing water meter.
  - c. Faulty equipment and tamper detection. In the event that there is an interruption, the AMI system must provide for a notification system that can notify the AMI user and FCGMA of this failure via email, SMS or other.
  
- N. AMI system must have an Application Programming Interface (API) interface to make data readily available to other systems. In some cases, meter data may be already remotely collected by a telemetry system (e.g. SCADA). In those cases, the data needs to be automatically uploaded to the Central Database from the third party application.

**SECTION 54. Operation and Maintenance Requirements**

An operator shall provide, properly install, maintain in good working order and operate the AMI device specified by this Resolution.

**SECTION 65. Inspection of AMI Devices**

Agency staff or their designees may inspect AMI devices for compliance with this Resolution in accordance with the AMI Ordinance

**SECTION 76. Demonstration of Compliance**

Compliance with the AMI Ordinance can be demonstrated through submitting a list of equipment, including product identification, serial numbers and manufacturer's information, along with an inspection report from an installer or equipment product distributor certified by the manufacturer to perform installations and maintenance stating that the equipment is properly installed and working.

On a motion by Director \_\_\_\_\_ and seconded by Director \_\_\_\_\_, the foregoing Resolution was duly passed and adopted by the Board of Directors at a regularly scheduled meeting of the Board held on this 3rd day of January 2018 in Ventura, California.

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\_\_\_\_\_  
Eugene F. West, Chair, Board of Directors  
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Resolution No. 2018-01.

By: \_\_\_\_\_  
Keely Rayas, Clerk of the Board

# FOX CANYON GROUNDWATER MANAGEMENT AGENCY

A STATE OF CALIFORNIA WATER AGENCY



## BOARD OF DIRECTORS

**Eugene F. West, Chair**, Director, Camrosa Water District  
**David Borchard, Vice Chair**, Farmer, Agricultural Representative  
**Steve Bennett**, Supervisor, County of Ventura  
**Charlotte Craven**, Councilperson, City of Camarillo  
**Robert Eranio**, Director, United Water Conservation District

## EXECUTIVE OFFICER

**Jeff Pratt, P.E.**

## MINUTES

Minutes of the Fox Canyon Groundwater Management Agency's (FCGMA) Operations Committee meeting held **Monday, November 06, 2017 at 2:00 p.m.** in the PWA Conference Room 346 at the Ventura County Government Center, Hall of Administration, 800 South Victoria Avenue, Ventura California.

**Members:** Chair Steve Bennett  
Co-Chair Robert Eranio

### **A. Call to Order**

Chair Bennett called the meeting to order at 2:03 p.m.

In attendance were: (1) Steve Bennett, FCGMA Operations Committee Chair; (2) Robert Eranio, FCGMA Operations Committee Co-Chair; (3) Arne Anselm, WPD, Deputy Director; (4) Kim Loeb, FCGMA, Groundwater Manager; (5) Keely Royas, FCGMA Clerk of the Board; (6) Daniel Howe, Ranch Systems; (7) E.J. Remson, The Nature Conservancy (TNC); (8) Carol Schoen, Zone Mutual Water Company; (9) Matthew Fienup, California Lutheran University (CLU); (10) Jared Bouchard, Pleasant Valley County Water District (PVCWD); (11) Brian Collins, United Water Conservation District (UWCD); (12) John Krist, Farm Bureau of Ventura County.

### **B. Public Comments**

There were no public comments.

### **C. Approval of Minutes**

Co-Chair Eranio pointed out that under Item F the sentence that starts "Director Eranio explained he views..." should be changed to state, "Director Eranio explained that he views..."

Co-Chair Eranio made a motion to approve the minutes as amended. Chair Bennett seconded the motion, and the motion as amended were approved.

### **D. Agenda Review**

There were no changes made to the agenda.

### **E. Update on NRCS Grant and AMI Timeline**

Arne Anselm announced that the grant subaward agreement with The Nature Conservancy was approved by the FCGMA Board of Directors at the last Board meeting. Mr. Anselm provided a hand

out of the AMI timeline, which he stated was included in the subaward agreement. One of the main tasks that he mentioned was getting the AMI installation done by March 2019.

**F. Draft AMI Ordinance**

Mr. Anselm stated that there were no new items to share on the draft AMI ordinance and that it is being reviewed by County Counsel who will rework it to be in accordance with the Fox Canyon GMA Ordinance code.

Chair Bennett asked if the ownership issue had to be decided before the AMI Ordinance could be adopted.

Mr. Anselm answered that the ownership impacts the grant implementation, but will not affect the AMI ordinance or technical specifications.

Mr. Fienup asked when the Agency expects to get it back from County Counsel. Mr. Anselm stated that he had hoped to have it for this Operation's Committee meeting, but will have it for the December 6, 2017 Board meeting.

Co-Chair Eranio noted a couple of changes to the AMI performance specifications. First, he asked that language be added under item 2.1, Physical Performance, that allows for an AMI or a smart meter to be installed that has, Modbus, serial, hard or Ethernet/IP as forward compatible. Secondly, under item 2.2.9, he referenced the statement "The battery life shall be transmitted to a central database alerting of low battery levels", he commented that the statement is only applicable or important if you have a stand-alone meter that is not energized by the wellhead. Mr. Anselm agreed to add "if applicable" to the statement in item 2.2.9.

Mr. Fienup asked if the ordinance has to have two readings before being approved by the Board. Mr. Anselm stated that the Board has the authority to waive the second reading, so they can approve it all at once.

Mr. Bouchard asked if the tiered rate incentives and timeline will be adjusted based on when the ordinance and performance specifications are adopted. Mr. Anselm explained that the incentives are part of the grant implementation and will be discussed during the next item.

**G. NRCS Grant Implementation**

- **Procurement** – RFQ and vendor selection

Mr. Anselm stated that a Request for Qualifications (RFQ) had been drafted and shared with only the grant partner at this time. He stated that he hopes to get it out this week after going through the in-house procurement department and that it will have a three week turn-around time for applicants. At that time a selection committee will need to be formed.

Chair Bennett discussed several options for creating a selection committee including to have the Board select the members of the selection committee.

Co-Chair Eranio asked if there will be a scoring system to aide in helping select a vendor. Mr. Anselm answered yes.



Chair Bennett stated that Agency staff should agendaize an item for the December 6, 2017 meeting where the Board would make a recommendation on how the selection committee who will be responsible for selecting an AMI vendor will be constructed.

Mr. Bouchard asked if any decision had been made between Agency ownership and well owner ownership. He was assured that the decision had not been made yet. He also asked if a well owner wants to take part in the incentives under the grant, he or she would have to get the AMI equipment through the vendor who gets selected from the RFQs. Mr. Anselm answered with a yes.

Chair Bennett directed staff to come back to the board with a recommendation for the RFQ and highlight any special qualifications that stand out from a specific vendor.

Co-Chair Eranio stated that he thinks that the Board should be more involved with the decision making if there are a significant amount of RFQs submitted.

After discussing how to determine who has involvement in the vendor selection process, a decision was made that staff would design a scoring rubric to bring to the Board at the December 6, 2017 meeting for consideration and Agency staff would reach out to staff from other agencies to assist the Agency's analysis of the RFQs and final selection.

- **Incentives** – Early adoption necessary to meet grant deadlines

Mr. Anselm handed out a timeline detailing the periods of time with the incentives associated with each. Mr. Anselm explained that the purpose of incentives is to encourage early adoption to stay on task within the grant timeline. The timeline presented works with the owner's owning the equipment and a rebate or a credit paying for the equipment.

Chair Bennett asked if this rebate or credit is per well, and not just per owner. Mr. Anselm confirmed that it is per well.

Ms. Schoen stated that she is still a little confused on who can participate in the water market. She recommended having a map to identify who can participate so it is clearer.

## **H. AMI Equipment Ownership Discussion**

Co-Chair Eranio stated that the bottom line is that he is in agreement with Chair Bennett that if the FCGMA does not go forward with flowmeter ownership, than there should not be a split system where the FCGMA owns the AMI and the well owner owns the flowmeter.

Chair Bennett stated that someday down the road he could be convinced that meter ownership should belong to the FCGMA, but when he and Co-Chair Eranio agreed at the previous Operations Committee meeting that it doesn't make sense to have a split ownership system, he did not think that an informed decision could be made and implemented to switch flowmeter ownership to the FCGMA in the same timeline that the AMI installation will take place. Based on the opinion that a change in flowmeter ownership could not take place in such a short period of time, Chair Bennett stated that a clear choice in, at least, temporary ownership of AMI needs to be with the well owner. Co-Chair Eranio disagreed, and stated that within the next six months he could put a program in place to convert flowmeter ownership to the FCGMA.

Chair Bennett suggested staff could write up both recommendations for the December 6, 2017 meeting. One where Agency staff works with Co-Chair Eranio to develop a meter ownership implementation program including AMI. The other being that AMI ownership falls with the well owner.

Mr. Fienup stated that in his opinion, trying to take meter ownership from the well owners could turn into a huge fight with growers.

Ms. Schoen agreed with Mr. Fienup that even if the motion does not get approved, it could create suspicion and lack of trust with growers.

Co-Chair Eranio stated that he is willing to give up his original stance of FCGMA owning flowmeters and AMI if there is an approved list of vendors that are authorized to do the maintenance and repair of meters as he feels there are big holes in the meter calibration program.

Chair Bennett and Co-Chair Eranio agreed to bring a recommendation to the FCGMA Board to have AMI ownership fall with the well owners, but the Operations Committee will continue to look at the issue of data being reported to ensure its validity.

**I. Adjourn Operations Committee Meeting**

Chair Bennett adjourned the Operations Committee meeting at 3:03 p.m.

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# FOX CANYON GROUNDWATER MANAGEMENT AGENCY

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## EXECUTIVE OFFICER

Jeff Pratt, P.E.

## NOTICE OF MEETING

**NOTICE IS HEREBY GIVEN** that the Fox Canyon Groundwater Management Agency (FCGMA) will hold an **Operations Committee Meeting** at **2:00 p.m.** on **Friday, January 12, 2018** in **Atlantic Conference Room**, at the Ventura County Government Center, Hall of Administration, Main Plaza at **800 South Victoria Avenue, Ventura, California**.

## FCGMA OPERATIONS COMMITTEE MEETING AGENDA

January 12, 2018

**Members:** Chair Steve Bennett  
Co-Chair Robert Eranio

**A. Call to Order / Introductions**

**B. Public Comments** – Audience members may speak about FCGMA-related matters not on today's Agenda.

**C. Approval of Minutes** – Consider approval of minutes from the November 06, 2017 Operations Committee meeting

**D. Agenda Review**

**E. AMI Performance Specifications**

**F. NRCS Grant Implementation**

- a. **Procurement** – Vendor selection process
- b. **Incentives** – Early adoption necessary to meet grant deadlines

**G. Outreach to well owners**

- a. **Grant opportunity**
- b. **AMI ordinance and compliance**

**H. 2018 Meeting Calendar and Future Topics**

**I. Adjourn Operations Committee Meeting**

## NOTICES

The FCGMA Board strives to conduct accessible, orderly, and fair meetings where everyone can be heard on the issues. The Board Chair will conduct the meeting and establish appropriate rules and time limitations for each item.

*The Board can only act on items designated as Action Items. Action items on the agenda are staff proposals and may be modified by the Board as a result of public comment or Board member input. Additional information about Board meeting procedures is included after the last agenda item.*

**Administrative Record:** *Material presented as part of testimony will be made part of the Agency's record, and 10 copies should be left with the Board Clerk. This includes any photographs, slides, charts, diagrams, etc.*

**ADA Accommodations:** *Persons who require accommodation for any audio, visual, or other disability in order to review an agenda or to participate in the Board of Directors meeting per the Americans with Disabilities Act (ADA), may request such accommodation in writing addressed to the Clerk of the FCGMA Board, 800 South Victoria Avenue, Location #1610, Ventura, CA 93009-1610, or via telephone by calling (805) 654-2014. Any such request should be made at least 48 hours prior to the meeting so staff can make the necessary arrangements.*

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**Availability of Complete Agenda Package:** *A copy of the complete agenda package is available for examination at the FCGMA office during regular working hours (8:00 a.m. to 5:00 p.m. Monday through Friday) beginning five days before the Board meeting. Agenda packet contents are also posted on the FCGMA website as soon as possible, and left there for archival retrieval in case reference is needed on previously considered matters. Questions about specific items on the agenda should be directed to the Agency's Executive Officer.*

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**Continuance of Items:** *The Board will endeavor to consider all matters listed on this agenda. However, time may not allow the Board to hear all matters listed. Matters not heard at this meeting may be carried over to the next Board meeting or to a future Board meeting. Participating individuals or parties will be notified of the rescheduling of their item prior to the meeting. Please contact the FCGMA staff to find out about rescheduled items.*

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**Electronic Information and Updates:** *Visit <http://www.fcgma.org> (for home page information) or Facebook (for meeting updates). Information available online includes the Board's meeting schedule, a list of the Board members and staff, weather station data, general information, and various Agency forms. If you would like to speak to a staff member, please contact the Clerk of the Board at (805) 654-2014.*

## AMI RFQ Rankings

AMI Installation and Data Management Scoring Criteria	Vendors and Scores																	
	A			B			C			D			E			F		
<b>1. Project understanding, Company experience and AMI Installation capabilities</b>	15	15	15	13	15	15	15	5	7	5	5	0	15	15	7	5	0	0
<b>2. AMI System Requirements</b>																		
<b>a. Physical Performance</b>	10	9	9	10	8	8	10	5	5	6.5	5	5	7	7	6	2	3	?
<b>b. Data Recording and Communication</b>	15	15	13	15	15	13	10	15	12	11	8	10	11	10	11	5	7	5
<b>c. Faulty Equipment and Tamper Detection</b>	15	15	15	15	15	15	15	13	13	15	15	15	8	13	14	7	10	0
<b>d. Actionable Alerts</b>	10	10	10	9	9	10	10	10	10	10	10	10	7	10	7	7	5	5
<b>e. Ancillary On-Farm Applications</b>	5	5	5	5	5	5	5	5	5	2	4	1	5	0	3	5	3	0
<b>3. Data Management and Central Database</b>	30	30	30	30	30	30	25	30	25	30	30	30	30	30	25	20	15	10
<b>Total Score</b>	100	99	97	97	97	96	90	83	77	80	77	71	83	85	73	51	43	20
<b>4. Can complete all requirements of project</b>	Yes			Yes			Yes			Yes			No			No		
<b>Rank by rater</b>	1	1	1	2	2	2	3	4	3	5	5	5	4	3	4	6	6	6
<b>Average score</b>	<b>98.7</b>			<b>96.7</b>			<b>83.3</b>			<b>75.8</b>			<b>80.3</b>			<b>38.0</b>		
<b>Overall rank</b>	<b>1</b>			<b>2</b>			<b>3</b>			<b>5</b>			Unresponsive			Unresponsive		

AMI RFQ responses were scored individually by three separate FCGMA staff. The individual scores and ranking are presented in the table, along with the average score for each vendor.

Proposed Selection Committee:

Agricultural User	James Dubois, Driscoll's
Water District Operator	Brian Collins, UWCD
Regulator / Data Consumer	Fox Canyon GMA Staff
Data Systems Engineer (advisory)	Matt Merifield, TNC

## **Re: Tiered Rebate Structure for AMI Installation & Water Market Participation – NRCS Grant Funding**

Contained in this memo is the outline of a tiered system of rebates proposed for implementation in Phase II of the Fox Canyon Water Market & Advanced Metering Infrastructure (AMI) pilot program, with funding from the NRCS Conservation Innovation Grant administered by the Nature Conservancy.

The goal of a tiered structure of rebates is to create incentives that will: (1) help to drive earlier adoption of AMI hardware on the part of agricultural water users, and (2) help to increase enrollment in the water market pilot. We believe that earlier adoption of AMI hardware will decrease the costs of implementation and avoid a possible procurement and installation log jam as the final deadline for AMI adoption approaches. We believe that increasing the number of participants in the water market will increase the value of the pilot program by providing additional information regarding the appropriateness and effectiveness of water market rules and regulations.

The proposed structure of rebates for AMI hardware has two types of incentives. The first rewards agricultural water users with a larger rebate for initiating AMI installation prior to a set of interim deadlines. The second incentive is a higher rebate for those agricultural water users who enroll in the water market pilot. Every three months, the maximum rebate available to water users will decline.

The structure of deadlines and rebate levels is as follows:

February 1 – March 30

- Maximum rebate of \$3,500 per well with water market enrollment (limited to the first 100 wells).
- Maximum rebate of \$2,500 per well without water market enrollment.

April 1 – May 30

- Maximum rebate of \$3,000 per well with water market enrollment (limited to the first 100 wells).
- Maximum rebate of \$2,000 per well without water market enrollment.

June 1 – July 31

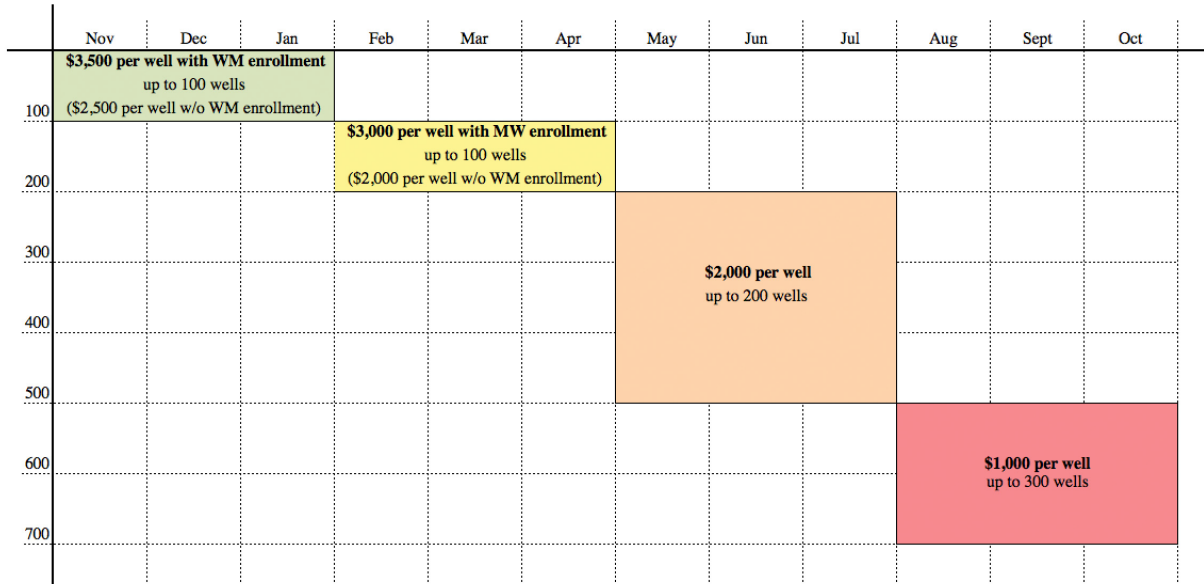
- Maximum rebate of \$2,000 per well (limited to a maximum of 300 wells).

August 1 – September 30

- Maximum rebate of \$1,000 per well (limited to a maximum of 200 wells).

In order to provide predictability regarding the cost of the proposed rebate program, there are also limits on the number of wells which qualify for each rebate level. For example, as shown in Figure 1, from October 1 until December 31, agricultural water users who enroll in the Water Market Pilot would qualify for a rebate of up to \$3,000 per well, but this level of rebate is limited to the first 100 wells enrolled. As shown in Figure 2, The total amount of money rebated under this system would not exceed \$1,350,000 for 700 wells.

**Figure 1. Rebate Structure**



**Figure 2. Total Cost of Rebates**

Maximum Rebate per Well	Effective Dates	Max Number of Wells	Max Cost
\$ 3,500	Feb – May	100	\$ 350,000
\$ 3,000	Jun – Aug	100	\$ 300,000
\$ 2,000	Sept – Oct	200	\$ 400,000
\$ 1,000	Nov – Dec	300	\$ 300,000
			\$ 1,350,000



Vendor Name \_\_\_\_\_

**Scoring Matrix for Agricultural Well Advanced Metering Infrastructure System Installation and Data Management to Support a Water Market**

Criteria	Weight	Score	Comments
<b>1. Project understanding, Company history, and AMI Installation capabilities</b>	<b>15</b>		
<b>2. AMI System Requirements</b>			
<b>a. Physical Performance</b>	<b>10</b>		
<b>b. Data Recording and Communication</b>	<b>15</b>		
<b>c. Faulty Equipment and Tamper Detection</b>	<b>15</b>		
<b>d. Actionable Alerts</b>	<b>10</b>		
<b>e. Ancillary On-Farm Applications</b>	<b>5</b>		
<b>3. Data Management and Central Database</b>	<b>30</b>		
<b>Total Score</b>	<b>100</b>		



4. Ineligible if does not:	Pass/Fail	Comments
Allow operator to manually read meter.		
Outdoor rated at IP66 or greater.		
Comply with all applicable Federal Communication Commission (FCC) Rules		
Support remote firmware updates.		
Provide a minimum two-year warranty on parts and labor is required.		
The central database shall at a minimum record increasing total water extractions.		
Interoperability with meter data collected by other telemetry systems		
Variable access permissions to allow different users different levels of data availability in support of a water market.		
Secure log in and password		
Invoicing to provide credit to well owner, monthly invoice to GMA		

## AMI Installation and Water Market Participation Incentive Options

### Option A – Tiered rebate structure with deadlines

- Higher rebate for joining Water Market
- Reduced rebate after certain deadlines
- Higher rebates may end prior to deadline if participation exceeds funding

February 1 – March 30

- Maximum rebate of \$3,500 per well with water market enrollment
  - Limited to the first 100 wells.
- Maximum rebate of \$2,500 per well without water market enrollment.

April 1 – May 30

- Maximum rebate of \$2,500 per well with water market enrollment
  - Limited to the first 100 wells.
- Maximum rebate of \$2,000 per well without water market enrollment.

June 1 – July 31

- Maximum rebate of \$2,000 per well
  - Limited to a maximum of 200 wells.

August 1 – September 30, or longer if needed to install AMI on all wells.

- Maximum rebate of \$1,000 per well
  - Limited to a maximum of 300 wells.

### Option B - Tiered rebate structure with no deadlines

- Higher rebate for joining Water Market,
- Reduced rebate as wells are provided AMI.

Wells 1 - 100

- Maximum rebate of \$3,500 per well with water market enrollment.
- Maximum rebate of \$2,500 per well without water market enrollment.

Wells 100 - 200

- Maximum rebate of \$3,000 per well with water market enrollment.
- Maximum rebate of \$2,000 per well without water market enrollment.

Wells 200 - 400

- Maximum rebate of \$2,000 per wells.

Wells 400 – 700

- Maximum rebate of \$1,000 per wells.

## AMI Installation and Water Market Participation Incentive Options

### Option C - Tiered rebate structure while funds available

- Higher rebate for joining Water Market,
- Reduced rebate as participation exhausts funding

First \$350,000 rebated

- Maximum rebate of \$3,500 per well with water market enrollment.
- Maximum rebate of \$2,500 per well without water market enrollment.

\$350,001 - \$600,000 (\$300,000 total)

- Maximum rebate of \$3,000 per well with water market enrollment.
- Maximum rebate of \$2,000 per well without water market enrollment.

\$600,000 – \$1,000,000 (\$400,000 total)

- Maximum rebate of \$2,000 per wells.

\$1,000,000 - \$1,350,000 (\$300,000 total)

- Maximum rebate of \$1,000 per wells.