AGENDA SHORT TITLE:
Services for Advanced Meter Infrastructure (AMI)

REQUESTED BOARD ACTION:
a) Authorize Chair to execute the Advanced Meter Infrastructure (AMI) Agreement between the Sonoma County Water Agency and Sensus USA Inc. ($54,140) for the Operation and Maintenance of the base stations and data acquisition; agreement terminates after three years.
b) Authorize the General Manager of the Water Agency to amend the AMI Agreement, anytime throughout the three year term of the Agreement, provided the amendments do not cumulatively increase the total cost to the Agency by more than $5,000 per year and do not substantially change the scope of work, and to approve additions, deletions, or changes in assignment of work to subconsultants, following the procedures set forth in the Agreement.
d) Authorize the General Manager of the Water Agency to execute License Agreements for the Advanced Metering Infrastructure Project in substantially the form as presented to this Board, following review and approval by County Counsel as to form.

CURRENT FISCAL YEAR FINANCIAL IMPACT

EXPENDITURES:  ADDITIONAL FUNDS REQUIRING BOARD APPROVAL:
Estimated Cost $54,140 Contingencies $0
Amount Budgeted $54,140 Unanticipated Revenue $0
Other Available Appropriations $0 Other Transfers $0
(Explain Below) (Source:)
Additional Requested $0 Additional Funds Requested $0

Explanation (if required):
Funding is available from appropriations within the Water Agency’s Water Transmission Fund (Account No. 675108, Sub-object 8560).

Prior Board Action: None.

Alternatives – Results of Non-Approval: If the AMI agreement is not approved, the meter-reading equipment currently in place at Water Agency facilities will not operate. If the County license agreement is not approved, wireless access to water billing meters within the range of Sonoma Mountain will not be possible under the current scenario and would significantly increase the cost of reading the meters.
Background:

The Advanced Metering Infrastructure Project (Project) will give the Sonoma County Water Agency (Water Agency) real time remote access to data from water meters on the Water Agency’s water transmission lines. Presently the meters are read once a month for billing purposes. The Project will allow the Water Agency to read all of the meters every 15 minutes, enabling better leak detection, providing more real-time flow data during emergency operations, providing more precise data for engineering planning purposes, and allowing the Water Agency’s contractor to access the meter data on their systems. The data generated by the Project will also be used in a collaboration project with IBM.

Base radio units for wirelessly gathering the meter data have been installed by the Water Agency’s employees at two locations. This agenda item will allow the Water Agency to add two more base units at the County’s Sonoma Mountain communication site and at a Valley of the Moon Water District (Water District) facility, as described below.

Under the AMI Agreement, Sensus USA Inc. (Sensus) will host the server and software for accumulating the data, display the data on an internet web page, and send the data to a Water Agency server. Sensus will also operate and maintain the two new base stations and antennas.

The County of Sonoma (County), through the General Services Department, operates and maintains a communication tower at the top of Sonoma Mountain. The County acquired an easement for the construction, operation, and maintenance of the communications site along with the right of ingress and egress over the surrounding property to access the communications site. The County has the right under its easement to allow other licensees to use the site.

The Water District operates and maintains a reservoir site located at the end of Crest Lane in Sonoma. The Water District acquired the property and the right of ingress and egress over Crest Lane.

In order to construct the Project, the Water Agency requires License Agreements with the County and the Water District to construct, operate, maintain, and access improvements for the Water Agency’s Project on the County’s Sonoma Mountain communications center and the Water District’s reservoir site at the end of Crest Lane. The Water Agency has prepared License Agreements for the Project (on file with Clerk). The Water Agency is requesting that the Board approve and authorize the General Manager of the Water Agency to execute the License Agreements for the Project in substantially the form provided to the Board, with such minor changes as may be approved by County Counsel.

The Water Agency has worked with General Services staff and determined the cost of electricity to operate and utilize the towers, and has agreed to pay the County one thousand two hundred dollars ($1,200) per year for the license.

The Water District is granting the License Agreement to the Water Agency for no monetary consideration, but the Water District will be allowed, as consideration, use of the communications equipment subject to the License Agreement for Water District purposes that do not conflict with Water Agency uses.

SERVICES TO BE PERFORMED

Under the proposed Agreement, Sensus will provide:

1. Use of Regional Network Interface (RNI) hardware, located at Sensus’ or a third party’s data center facility (as determined by Sensus), that is necessary to operate the AMI System.
2. Initial training (not to exceed five days) on the use of the AMI System, and all product documentation, including updates to product documentation.
3. Updates and Upgrades to latest Sensus FlexWare Software releases.
4. FCC spectrum, pursuant to the terms of the spectrum lease, to operate the AMI System.
5. Remote firmware maintenance for FlexNet Base Stations and SmartPoint Modules.
6. Certain third party software required to operate the RNI.
7. A secure Web portal access, to the hosted FlexWare Software application.
8. Submission of a “daily reading file” in standard file format, containing hourly consumption reads and all available alarms collected by the AMI System, including exception reports, such as zero consumption reads and non-responding meters (including traceability to the meter location when the meter installer provides the location information).
9. 24x7x365 server and network monitoring, and trouble ticket generation, advanced security monitoring and preventative maintenance monitoring using diagnostic software tools.
10. Network optimization after the final propagation study and FlexNet Base Station site plan is verified by Sensus, and network tuning of endpoints deployed in the service area.
11. Daily off-site vaulting of encrypted backup tapes containing one year of history for auditing purposes.
12. Sensus route manager MDM software for up to thirteen (13) months of hourly data retention for basic reporting, route processing and querying functionality.
13. FlexNet Base Station parts repair or replacement, at Sensus’ discretion. This includes field repair labor. Two business day response time for on-site analysis begins after primary troubleshooting personnel determine that all remote options have been exhausted and that a site visit is required.

The agreement costs are as follows: $5,000 (startup cost); $865 (per month) for 2 towers for 36 months; $1265 (per month) for 6 towers for 36 months for a total of $54,140.

The Water Agency requests amendment authority to be able to quickly recover from an event not covered by the agreement. The agreement does not cover parts and labor to repair damage that is the result of Force Majeure. Repairs for damage due to lightning, vandalism, utility voltage surges or earthquake would be the responsibility of the Water Agency. The SmartModules on each of the billing meters have the capability to store data for short periods, but it would be imperative to repair any base stations and affiliated equipment as quickly as possible. The $5,000 would give the Water Agency the financial means to quickly recover from one of these unlikely events without having to return to the Board.

SELECTION PROCESS
The Water Agency evaluated two systems, Badger and Sensus. The Sensus system was selected because the Water Agency has over 180 Sensus water meters for billing purposes. The Sensus equipment for automatic meter reading is easily installed with these meters. Water Agency operators and mechanics are familiar with the Sensus Automatic Meter Reading adaptors (AMR), which is a “drive by” system of reading meters. The AMI system operates with similar attachments to the water meters.

Neighboring water agencies also use Sensus water meters which could be read by the equipment planned for installation. Water District and the City of Santa Rosa have expressed interest in being a partner in the project. Additionally, City of Cotati uses Sensus water meters which could be read by the planned system.

The Water Agency is undertaking a project with IBM that will utilize the data collected from the AMI equipment. Gathering the data from other systems in a central location increases the functionality of that project. Using a single source equipment supplier that is compatible with neighboring utilities increases the information on water usage throughout the region.

The Water Agency would incur increased costs by not requiring single sourcing of the specified equipment. Maintaining and operating a system comprised of components from more than one manufacturer may be substantially more expensive than a standardized system. Water Agency facility repair personnel would have to be trained to repair and service several types of brand components. It would be more costly to keep multiple spare part inventories or specialized tools for more than one type of brand component. Further, as equipment and systems become more technologically advanced, computerized interrelationships of parts makes standardization essential for smooth operations.

INSURANCE
The standard insurance requirements for the Agreement were modified at Sensus’s request, and the
modifications were approved by Risk Management.

CEQA
The General Manager has determined that the Project is exempt under the California Environmental Quality Act because no substantial evidence exists that the Project would have a significant effect on the environment. The Project is also exempt under Section 15301(b)(Existing Facilities) and Section 15304(f)(Minor Alterations to Land) of the CEQA Guidelines.
**Attachments:** None.

**On File With Clerk:** Agreement (4 Copies)
Revocable License Agreements (one draft copy of each)

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**CLERK OF THE BOARD USE ONLY**

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<th>Board Action (If other than “Requested”)</th>
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CF/0-0-21  SENSUS USA, INC. (AGREE FOR MAINTENANCE OF GATEWAY BASE STATIONS AND REMOTE DATA COLLECTION HOSTING FOR ADVANCED METER INFRASTRUCTURE PROJECT) TW# 11/12-010