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MEMO

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Date: January 25, 2012  
To: Steven M. Olea, Director  
Arizona Corporation Commission  
From: Arturo Gabaldón, President  
Community Water Company of Green Valley (CWC)

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Re: BMP 7.3 Evaluation of New and Emerging Technologies and Practices Tariff.  
Docket No. W-02304A-010-0220

**Requirement:** CWC is to file a detailed explanation with the Commission prior to evaluating a new technology or practice. The following is our submission for your review and comment.

**Program Proposal:** CWC proposes to evaluate the use of an In Home Display (IHD) Data Logging to identify unintended or unnecessary water consumption by its users. At present, CWC has the ability to connect to the meter via a laptop computer and print out a graph or spreadsheet showing the time and day of the usage. CWC provides this information to customers when either: (1) a high consumption inquiry is made by a user; or (2) there is a high-usage alarm. Further, CWC has had difficulty in the past in pinpointing the time of day a high consumption event took place or identifying the water loss in a timely manner.

The purpose of the IHD is to provide information and educate the consumer and make rate payers more aware of their water uses. This, in turn, will lead to reduced consumption. CWC believes IHD technology would allow the customer to have real-time monitoring on a continuous basis. Using this information the customers would know the time of day of their high usage and help to address the cause. With the IHD system, CWC and the consumer will be able to more accurately determine consumption. This information would assist the consumer and the provider in reducing water use of irrigation systems, home water treatment systems, toilets, and other high-water consumption appliances. The IHD can also help customers better determine whether they have a leak or other water-loss issue. The consumption history can then be tracked to determine how much water is saved after any problem has been addressed.

CWC will implement this program on a pilot basis – selecting up to five customers for IHD installation. CWC has selected the Orion IHD, which is approximately \$110 per unit (see the

attached Technical Brief that describes the device in further detail and attached quotation from National Meter and Automation, Inc.). The IHD is an easy to use device which can be mounted inside the home for easy access to consumption data. CWC believes having an IHD will facilitate customer awareness of their water consumption and encourage them to minimize wasteful water use.

**Objective of the Evaluation:** The objective of the evaluation is to determine the following:

1. Perform cost benefit analysis by calculating an internal rate of return of the unit.
2. Recommend a subjective opinion on ideal candidates who could benefit from this information.
3. Provide an opinion whether users benefit from this device.

Through this program, CWC is seeking to determine whether the IHD will provide information that will ultimately help to reduce water consumption – by providing customers with information regarding water consumption, and enhancing leak detection. With this information, customers can then make better-informed decisions regarding their water usage. In this evaluation CWC will monitor actual usage and determine whether implementing IHDs resulted in reduced consumption.

**Summary of how the evaluation will work, methods used and estimated costs:**

1. CWC will identify up to five customers to participate in the evaluation. The Company will base its identification and selection on those customers it believes will benefit from a better understanding of their consumption patterns, will be diligent in their use of the device, and would be willing to have open and frank discussions regarding their experience with the knowledge learned.
2. CWC will install up to 5 units at a cost of \$110 each unit (total 5 units x \$110 = \$550), plus a 2-hour orientation and training for each participant. (5 participants x 2 hours x \$42 Employee Related Expenses ERE = \$420 + \$550 for units = \$970).
3. Quarterly, the participants will be:
  - a. interviewed regarding their experience;
  - b. required to complete a questionnaire; and
  - c. ask for comments on how the device has improved their understanding of their water consumption.

CWC estimates the cost of this part of the program to equal approximately \$840 (4 quarters x 5 hours x \$42 ERE = \$840). CWC will also collect maintenance cost information, such as battery life for the units.

4. Annually, CWC staff will prepare a summary of the customer's feedback and evaluate the change in actual water usage of the participants (40 hours x \$42 ERE = \$1,680).

5. CWC estimates the total cost of the program (including evaluation of the technology) to be approximately \$3,490.

**Possible Results:** CWC believes that this program will help it determine whether IHDs will result in educating customers to identify when and how they use water, and provide them with the information and tools to effectively use their water. Through the program, customers will inform the utility whether they perceive the regular monitoring of their water consumption provided an educational benefit to them. CWC will verify and report whether there was an actual reduction of the quantity of water used. With this additional information, CWC will have a better understanding of whether IHDs aid in water conservation.