# VendingMi\$er™ Pacific Northwest Regional Turnkey Program

#### **Contractor**

Bayview Technology Group, Incorporated 1091 Industrial Road, #106 San Carlos, CA 94070

1-800-770-8539

P (650) 596-1160 F (650) 593-0156

David Schanin, President
Dschanin@bayviewtech.com

Ryan Wood, Major Accounts Rwood@bayviewtech.com

#### Program Manager

Rick Miller
Energy Efficiency Representative
Bonneville Power Administration
Customer Service Center
707 W Main Street, Suite 500
Spokane, WA 99201
Rlmiller@bpa.gov
P (509) 358-7464
F (509) 353-4614

## Program Design

- BPA has established a "Turnkey" VendingMi\$er installation program under a negotiated agreement with Bayview Technology
- Bayview is the manufacturer of VendingMi\u00a8er, the patented "Plug and Play" device, and will perform all the installations if the Utility so chooses. The installations will be accomplished through soft drink distributors, major bottlers and through specially-trained installation teams. The Utility may choose other means for installing VendingMi\u00a8er, however our research indicates that allowing Bayview to do the installation is generally the lowest-cost alternative.
- Bayview will track the type and location of installations. All participating utilities will receive a detailed report on the installations in their service territory.
- A Turnkey implementation strategy will <u>quickly and effectively</u> provide significant load reduction with minimal administrative and marketing costs.
- All utilities in the Pacific Northwest region will be eligible for and benefit from the region wide program.
- As part of its Conservation Resource Augmentation efforts, BPA will offer to purchase the VM and pay for the installation for all load-following Customers under Subscription contracts. Utilities eligible for the Conservation and Renewable Discount (C&RD) can also pay for program implementation, then claim the savings under the C&RD (please see Delivery Mechanisms below for a further discussion.).
- Where BPA does not follow load, including Slice/Block and IOU's not eligible for the C&RD those utilities would pay for VM and/or the installation. However, BPA would be

willing to pay for the program if those utilities (with the exception of IOUs that do not purchase power from BPA) are willing to commensurately reduce the amount of load BPA is required to serve (a load decrement). This is the only way that BPA would be assured of receiving the conservation it has paid for.

## Background on VendingMiser Costs and Savings Potential:

The following is mostly <u>vendor-supplied</u> information:

- It is estimated there are 120,000 vending machines in WA, OR, ID, & MT. With an 8% annual growth rate, 175,000 machines will be in the region within 5 years.
- With 95% confidence, the manufacturer states that the <u>average</u> vending machine energy savings will be <u>46.1%</u> (+/- 2.7%) based on 61 random sample points gathered throughout the nation.
- Additionally, BPA has experience with the VendingMiser technology, in that, 63 units were installed at Fairchild Air Force Base in Spokane, WA. The BPA Headquarters building has installed 6 units.
- Other regional utilities have successfully implemented similar programs such as Avista, Tacoma Power, Snohomish PUD and Eugene Water & Electric Board.

## **Key Considerations:**

- <u>Rate Mitigation</u>: Conservation is delivered very early in the rate period when it has the highest value to the Region.
- <u>Significant Savings Potential</u>: VendingMi\$er represents a cost-effective, largely untapped resource with a presumed long measure life (10 years). Assuming full market penetration, as much as <u>14.75 average Megawatts</u> in the Region could be saved at an estimated cost of <u>\$1,050,000 per aMW</u> or less than <u>15.5 mills</u>. This estimate is based on 100,000 installed units.
- <u>Fast delivery</u>: This "Plug & Play" technology is easy to install and can achieve a relatively large block of conservation in a relative short period of time (8 months to 1 year for full implementation). Implementation can begin immediately.
- <u>Peak Shaving</u>: School Districts, Office Buildings, Colleges, or any commercial business that closes before 6 p.m. An estimated 30% of all the savings would be realized during peak hours.
- <u>Large Economies of Scale</u>:
  - one vendor for entire region
  - the turnkey approach is the most efficient and effective delivery mechanism

#### Benefits to Customers:

- Mitigates BPA's rates to the Customers (all customers)
- If done under Conservation Augmentation, BPA pays (requirements, load-following Customers only)
- No contract or agreement is required between the utility and BPA (an agreement will be required when and if a utility elects to contract directly with Bayview.
- Requires no Customer staff time to develop and implement their own program (this is a full turn key operation)
- Customers can choose to participate under their Conservation & Renewable Discount, installation and reporting services, as well as claim the savings.
- Product co-branding that provides utility exposure to their consumers

## **Implementation**

**Timelines.** Work shall commence on or after the date a contract is issued to Bayview Technology (estimated to be early May). Initial work shall be completed within 8 to 12 months of contract signing. However, the ongoing retrofitting of newly placed vending machines in the region will continue. The program will run for two years from date of signing with an option to extend in one-year intervals thereafter.

**Description.** Bayview will provide a complete Turnkey program to all Utilities who request it and install VendingMiser's(VM) on vending machines in the four-state region of Idaho, Montana, Oregon and Washington and those other states where BPA serves load. Regardless of the method of delivery (see Deliver Options below) a "Turnkey Program" has been formed and all regional Utilities and Direct-Served Federal Agency Customers will be eligible to participate.

## Installation Procedures, and Requirements and Specifications

Bayview Technology Group, Inc. is responsible for the complete installation process. From initial coordination with a utility, bottlers such as Coke, Pepsi or other 3<sup>rd</sup> parties that are subcontracted to accomplish the installation task, to the final utility installation report.

Bayview will supply all needed materials, including the VendingMiser devices, WireMold, screws, brackets, instructions, notices and associated tools to install these devices.

Logistically, Bayview Technology Group, Inc. will accomplish the following tasks:

- 1. Identify the location to be installed.
- 2. Gain access or approval if necessary to move the machine and install the VendingMiser unit. This will consist of:
  - a. Gaining access to the rear of the vending machine to mount the wall bracket approximately 4 feet from the floor behind the machine.
  - b. Installing repeater units with banks of machines to improve installation esthetics and reduce the risk of circuit breaker tripping. Repeater units stagger each machine coming back on-line.
  - c. Mounting the occupancy sensor, generally two feet above the machine. However, at all times being mindful of the optimal positioning to minimize false or insufficient triggering that could impact energy savings or product sales. Bayview intends to phase in an occupancy sensor with a "Compressor Failure Indicator" feature which is already in the VendingMi\$er itself. This feature will enable the bottler to more easily determine if the machine is operating properly. Additionally, the sensor cord on the new sensor shall exit from the bottom of the sensor as opposed to the top as in the current sensor.
  - d. Installing Wire Mold to cover the occupancy sensor cord and maintain the esthetics of the facility or building motif. Every effort will be made to match Wire Mold colors (White or Ivory) with the building walls.
  - e. Adhering to the VendingMi\$er will be a brightly colored sticker notice that provides key information for the bottler and end user that clearly states contact information, failure reporting and warranty replacement procedures. The notice will be screwed to the wall by the VendingMiser bracket.

- 3. Record installation documentation for reporting purposes.
- 4. Complete testing of the VendingMiser by ensuring the lights on the VendingMi\$er indicate proper operation after power up.

## **Utility Co-Branding.**

Bayview will provide triangular corner snipes (stickers) for placement on the vending machines. For those Utilities that want to actively participate and gain visibility in the consumers' mind concerning energy conservation, Bayview will coordinate the "Branding" of vending machines for each vending machine retrofitted with a VM. This will include artwork preparation, printing and approvals. Additionally, Bayview will check with each appropriate vending machine owner or equivalent responsible party that will ensure participation in the "Branding" feature of this program. It should be noted that the bottler or owner of the vending machine holds veto power over co-branding.

## Co-Branding will include:

• The Utilities' name, The Bonneville Power Administration and the bottler or distributor (if they want to participate).

#### **Bonneville Provided Services.**

- BPA will provide, or will ask the participating Utility to provide, Bayview with the most recent service territory maps, in electronic format, if possible, so that Bayview can more rapidly accomplish both installation planning and the installation itself.
- BPA will provide Bayview with Zip Code lists by City and State.
- BPA will provide the Contractor with a list of Utilities' who have selected the delivery mechanism of their choice along with the appropriate liaison (Energy Efficiency Representatives) so utility specific issues can be discussed, resolved and implemented (such as installation timing, target accounts and co-branding).
- BPA will provide, or will ask the participating Utility to provide, Bayview with the most recent service territory maps, in electronic format, if possible, so that the Contractor can more rapidly accomplish both installation planning and the installation itself.

**Participation.** All Utilities in the region shall be eligible for this program. This is a voluntary participation program. It is understood that some utilities may opt to not participate.

#### **Delivery Mechanisms.**

<u>CONAUG</u>: BPA will pay for the implementation costs, for participating load-following Customers, under its "Conservation as part of Augmentation" (CONAUG) program. Bayview will invoice BPA directly.

<u>UTILITY INSTALLED</u>: For Utilities that desire to install, or make their own arrangements for installation, those Utilities will pay for the VendingMi\$er at an agreed upon price. Bayview will invoice those Utilities directly.

<u>C&RD</u>: Utilities may opt to use their Conservation & Renewable Discount funding for this program. Bayview will contact the utility prior to any installations to determine the amount of C&RD dollars they wish to spend. Utilities may claim the costs dollar-fordollar. Utility installation and/or Utility-arranged installation qualifies for the C&RD. End-use customer installations do not qualify under the C&RD.

These values will not change based on the machine configuration (i.e., illuminated vs. non-illuminated) because the costs will not vary.

Bayview will invoice the Utility directly for the number of installed units. <u>Investor-Owned Utilities</u>: All IOUs will be allowed to participate, at their own cost, in the program at the agreed-upon Regional Buyers' Cooperative installation price. Bayview will enter into a separate agreement with those utilities. Bayview will invoice the IOU directly for the number of installed units.

## Savings.

The Northwest Regional Technical Forum has ascribed (deemed), and BPA has approved, annual savings at 1,292 kilowatt hours per year for illuminated machines and 861 kilowatt hours per year for non-illuminated machines. The ascribed measure life is 10 years. Savings and measure life assumes a direct install under a "Turn Key" program.

### Monitoring and Verification.

Since savings have been deemed and installation reports will be issued by Bayview, monitoring and verification will not be required. However, if a utility so chooses, the utility may conduct its own installation verification and/or monitoring at its own cost.

## Program Restrictions (ineligible for the program).

- Indoor Locations: Inside specific 24-hour facilities that have vending machines will not be retrofitted due the relative constant activity that result in low savings. These are: 24-hour convenience stores and employee break rooms in 24-hour retail stores.
- Outdoor Locations: Within 60' of a public street or where the facility declines installation, or where the VendingMi\$er would be subject to direct weather contact.
- Vending machines that contain perishable goods.
- Sited machines that do not have a wall behind it or a wall that is not suitable for mounting the VendingMiser (such as glass).
- Proprietors who own the vending machine and do not wish to have VM installed.
- Utilities that opted out of the program.

### Reporting Requirements.

There will be no reporting requirements for participating utilities, unless the utility elects to participate under the C&R Discount. Those utilities will report accomplishments within the framework of the C&RD reporting process.

Bayview will provide an installation report with each invoice that, at a minimum, shall include the following information:

- The report shall be by Utility service territory and Zip Code
- The number of units installed
- The location (address, building name, and specific internal location, i.e., breakroom.)
- Type of location (school, commercial building, stores, hotels, etc.)
- Whether or not the vending machine is lamped or delamped
- Reports shall be provided to BPA and the Utility as installations are completed

When installation in a utility service territory is completed, a final and complete installation report will be provided, in the above format, when the final invoice is submitted.

**Ownership of Product and Warranty.** For those VM devices paid for by BPA, title will reside with BPA and the Warranty shall be passed through to BPA. For those VM devices paid for by the participating Utility or Direct-Served Customer, title and Warranty shall reside with the entity making payment.

**Quality Control.** Bayview will provide written instructions for replacing failed devices. The instructions will be on the VendingMi\$er unit. Installation of a replacement device for a defective device will be borne by the end-use consumer bottler or participating utility. When the failed device has been returned by C.O.D., BPA will be invoiced for the shipping and handling costs for the return and replacement device. If failures are reported, Bayview will work with the owner of the machine to ensure continuous and proper functioning of the VM.

#### **ACCEPTANCE PROVISIONS**

### Acceptance.

Upon delivery of the products and services, BPA or the purchasing utility will review and evaluate the reports and invoices. Invoicing by Bayview will occur no more frequently than every two weeks or under whatever invoicing arrangements have been agreed to between Bayview and the Utility. If the product(s) and/or services meet the requirements of the contract BPA or the utility will make payment (generally on a 30 day Net).

Utilities that arrange direct contracts with Bayview will make payment according to negotiated payment provisions between that Utility and Bayview. For the purpose of clarification, BPA will not be one of the Parties to those agreements.

Participation Confirmation Form

(This is not a formal contract or agreement between BPA and the Utility)

Jame and Address of Utility:
oint-of-Contact Name, Telephone Number and e-mail Address:
lease check your participation option below:
articipation
Yes. Our utility will participate in the Full Turnkey program to take advantage of the following benefits.  Our utility wants BPA to fully fund (100%) the cost of this program  Our utility does not want to use any our staff time to develop our own program  Our utility wants to receive reports on the installations made in our service territory
Our utility wants to participate in the regional full Turnkey program and our utility will contract directly with ayview.
<ul> <li>Our utility understands that Bayview will invoice our utility directly.</li> <li>Our utility will use our staff to arrange for the installation in our service territory either through soft drink distributors or through some other means</li> <li>Our utility will use our staff to document the installations</li> </ul>
Our utility does not want to participate in the regional Turnkey program or contract directly with Bayview.
unding Source
Note: For those utilities that wish to participate in the regional Turnkey program or who want to contract directly ith Bayview.)
Our utility wants BPA to fully fund (100%) this program as part of the Conservation Augmentation initiative. ayview will invoice BPA directly. Our utility will receive and complete installation report from Bayview.
Our utility wants to use our utility's <u>Conservation and Renewable Discount (C&amp;RD)</u> . Our utility will use the secount, and be invoiced directly by Bayview. Our utility will report the expenditures and savings as part of our tility's annual C&RD reporting requirement.
Our utility will use some other form of funding (other than C&RD) and will contract directly with Bayview and ill be invoiced directly by Bayview.  Load-following)

Participation Confirmation Form

(This is not a formal contract or agreement between BPA and the Utility)

Name and Address of Utility:
Point-of-Contact Name, Telephone Number and e-mail Address:
Please check your participation option below:
<ul> <li>Participation</li> <li>Yes. Our utility wants to participate in the Full Turnkey program to take advantage of the following benefits.</li> <li>Our utility does not want to use any of our staff time to develop our own program</li> <li>Our utility wants to receive reports on the installations made in our service territory</li> </ul>
<ul> <li>☐ Yes. Our utility wants to participate, but under the following conditions:</li> <li>Our utility will purchase the units at an agreed upon price</li> <li>Our utility will use its staff to arrange for the installation in our service territory either through soft drink distributors or through some other means (required if C&amp;RD funding is used)</li> <li>Our utility will use its staff to document the installations</li> </ul>
☐No. Our utility does not want to participate.
Funding Source
Our utility wants BPA to fully fund (100%) this program and our Utility will agree to a load decrement for the commensurate amount of energy savings received.
Our utility will fund this program under the <u>Conservation and Renewable Discount (if eligible)</u> . Our utility will use the discount, and be invoiced directly by Bayview. Our utility will report the expenditures and savings as part of our utility's annual C&RD reporting requirement.
Our utility will use our own funds or we will use some other form of alternate funding. (Non-load following and IOUs)