



## ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item  
Meeting of April 25, 2009**

**DATE:** April 16, 2009

**SUBJECT:** Authorize the Water Pollution Control Bureau (WPCB) to enroll in the Demand Side Management, Distributed Generation Pilot Program (DSM Program) being implemented and administered by PowerSecure International, Inc. (PSI) on behalf of Dominion Virginia Power (DVP).

**C. M. RECOMMENDATIONS:**

1. Authorize the WPCB to enroll in the DSM Program which will require a DSM agreement and amendments between the County and PSI.
2. Authorize the Purchasing Agent to execute the DSM agreement and amendments subject to legal review by the County Attorney.

**ISSUE:** County Board approval is required for the WPCB to participate in the DVP DSM Program.

**SUMMARY:** Staff recommends enrolling in the DSM Program as the equipment required to participate in the Program was planned to be purchased and installed regardless of this program and participation in the DSM Program will reduce the annual cost of operation by approximately \$100k/yr (for the first two years of the agreement) and will benefit the County and others. The DSM Program temporarily removes the WPCP from the DVP electrical power supply grid during peak demand periods, thus providing approximately 6.50 MW (mega watts) of additional capacity for non-WPCP customers. Benefits include: (1) the WPCB will receive rebate payments (which will reduce the operating expense to the facility) on a monthly basis through the end of calendar year 2014 by limited use of Standby Generation Facility (SGF) emergency electrical power generators (required to be installed to reliably meet the total nitrogen of 3 mg/l (TN3) permit and grant requirements); (2) DVP will be able to reduce the peak load on the local grid which will allow increased time for the supply of additional power and/or demand management strategies to take effect; and (3) other County and non-county customers in this area will have a more reliable power supply during peak demand periods.

**BACKGROUND:** In January 2003, the County Board endorsed the Department of Environmental Services Water Pollution Control Plant Master Plan 2001 Update ("MP01"). The MP01 will enable the County to meet current and future capacity demands in the most

County Manager: \_\_\_\_\_

County Attorney: \_\_\_\_\_

Staff: Lawrence Slattery, Bureau Chief, WPCB

environmentally appropriate manner. The capital improvements outlined by MP01 provide for redundancy, increased capacity sufficient for existing and future flows estimated to meet the needs out to the years 2015-2020+, and a positive environmental impact for Four Mile Run, the Potomac River, the Chesapeake Bay, as well as addressing external wet-weather bypasses, aging infrastructure, reliability, odor control, and security matters.

In order to meet Arlington County's commitment to sustainability, our obligation to protect the public health and the environment, it is necessary to install the SGF to address power supply challenges that have in the past and could in the future negatively impact the facility's reliability and performance.

DVP performed an analysis of the electrical power supply grid and determined that the most viable option to address demand challenges in the northern Virginia area was to pursue a DSM Program. In accordance with the Virginia Public Procurement Act process, DVP signed an agreement with PSI as the sole source provider for implementation of the DSM Program on November 1, 2007. The State Corporation Commission of Virginia approved the DSM pilot program on January 17, 2008.

**DISCUSSION:** Electrical usage by the WPCB is governed by the VEPGA Agreement between DVP and the Virginia Municipalities that went into effect on July 1, 2007. The VEPGA Agreement allows the WPCB to enroll in the DSM Program per paragraph A3 of the Agreement:

**"The Customer (WPCB) may participate in any formal Company (DVP) solicitation for capacity and energy based on the Company's (DVP's) needs."**

DVP has contracted with PSI as the contractor to implement the DSM Program. To participate in the program, the County will be required to enter into an agreement with PSI as a sole source provider for the purchase of SGF equipment and services which the WPCB is required to install anyway in order to reliably meet regulatory requirements (TN3, Class 1 reliability, etc.). Participation in the DSM Program will provide additional benefits to the County.

After the SGF is operable, the County will receive a monthly rebate that consists of a capacity payment which reflects the amount of electrical load curtailment capacity available at a given time. Additionally, the County will be reimbursed for fuel consumed during load curtailment events.

The capacity rebate would be received on a monthly basis after DSM Program enrollment is completed and the generators are brought on-line. The rebate rates after the first two years and through the end of 2014 are anticipated to be determined prior to the end of CY 2009 by DVP when DVP has better knowledge of the participation level in the DSM Program. These amendments to the DSM Agreement will be subject to legal review by the County Attorney and approval/execution by the Purchasing Agent.

The DSM Agreement will require that PSI perform critical system maintenance and monitoring. PSI will be liable for DVP rebates and penalties should the gensets not perform due to maintenance and monitor services that are inadequate.

The DMS/SGF equipment procurement (motor-generator sets, transformers and supporting equipment) is estimated to cost approximately \$9.8 million including contingency. DVP and their sole source DSM agent, PSI, utilize a competitive procurement process that meets the Virginia Procurement Act requirements. These SGF costs are part of the Board approved MP01 budget.

It is highly desirable to enroll in the DSM Program to minimize the WPCB electrical power costs while enhancing power reliability for all surrounding Arlington County residents and businesses.

**Future Board Action related to this request:**

In order to realize the electrical cost savings via the DVP DSM Program and install the SGF equipment and facilities, the SGF building construction is scheduled to be bid in April/May 2009 and will be formally requested before the Board for approval in a timely fashion. This cost is not included in the \$9.8 million noted above.

**FISCAL IMPACT:** Participating in the DSM program is estimated to reduce the WPCP's net overall electrical expense by approximately \$100,000 per year for the first two years of the agreement. The net cost reduction for the remaining years of the contract depends upon the rebates yet to be established by DVP.

All the SGF components (building and equipment) noted above are included in the \$568 million MP01 budget. This project is part of the overall budget for the Master Plan 2001 upgrade and expansion project at the DES Water Pollution Control Plant, and will be funded out of general obligation bond funds, Virginia Department of Environmental Quality Water Quality Improvement Fund Enhanced Nutrient Removal Grant, Interjurisdictional partners who are responsible for their proportionate share of the costs related to upgrade of the WPCP, and possibly the Virginia Department of Environmental Quality Revolving Loan Fund. The debt service costs are included in the annual projections for the Water Sewer Rate, which ultimately funds the repayment of the debt service associated with MP01. Rate increases are projected to range from 5%-10% per year for several years for funding of all Utilities Fund projects and operating expenses.