



Environment Committee

For the Metropolitan Council meeting of December 14, 2011

ADVISORY INFORMATION

Date Prepared: November 9, 2011

Subject: Authorization to Hold a Public Hearing for a Draft Facility Plan Amendment for the Blue Lake Wastewater Treatment Plant Improvements, MCES Project No. 801800

Proposed Action:

That the Metropolitan Council authorize its General Manager of Environmental Services to schedule and hold a public hearing for the draft Facility Plan Amendment for the Blue Lake Wastewater Treatment Plant Improvements project, MCES project number 801800.

Summary of Committee Discussion / Questions:

Council Member Doan asked about the time horizon and discount rate used for analysis. He asked whether the negative net present worth included a grant, and he asked about the other reasons to pursue the project. Staff said that the grant is not included in the negative present worth, but is required in order to make this project cost-effective for our ratepayers. Staff explained that the project evaluation time horizon was 25 years and included an interest rate of 4%. The State of Minnesota is trying to generate a demonstration project and may be offering grants and subsidies to encourage these types of projects.

Council Member Doan asked for the rationale for pursuing project. Staff explained that MCES has established an energy savings goal, and this would be an element of our energy reduction program. A project such as this will reduce the MCES reliance on fossil fuels and would have other environmental benefits.

Council Member Van Eyll asked if the \$2.5M savings indicates a quick payback for the project. Staff said no, a \$4.4M grant or similar subsidy would be required in addition to the energy savings to break even over a 25 year period.

Council Member Rummel pointed out that this is a tremendous opportunity to look at solar as an energy source, and this would support statewide goals for renewable energy.

Council Member Melander asked if the life expectancy of the solar panels exceeds 25 years. Staff responded that the life expectancy of units is less than 25 years, but that replacement and maintenance costs through the 25 years were included in the cost estimate.

Council Member Rummel asked if a reduction in costs for ratepayers will result from this project. Staff said the impact to the ratepayers, with appropriate grant money, would be dependent on the future cost of electrical energy. Based on current estimates, there would be no adverse impact to the ratepayers.

Council Member Rummell mentioned the reduction of reliance on fossil fuel based energy production as a positive benefit of this technology.

Motion to approve proposed action was made, seconded, and passed, with Đoàn voting nay.



Environment Committee

Meeting date: **November 8, 2011**

For the Metropolitan Council meeting of December 14, 2011

ADVISORY INFORMATION

Date: November 1, 2011
Subject: Authorization to Hold a Public Hearing for a Draft Facility Plan Amendment for the Blue Lake Wastewater Treatment Plant Improvements, MCES Project No. 801800
District(s), Member(s): District 4 Gary Van Eyll; District 3 Jennifer Munt; District 1 Roxanne Smith
Policy/Legal Reference: PFA Loan Requirement
Staff Prepared/Presented: William (Bill) Cook 651-602-1811
Division/Department: MCES c/o William G. Moore 651-602-1162

Proposed Action

That the Metropolitan Council authorize its General Manager of Environmental Services to schedule and hold a public hearing for the draft Facility Plan Amendment for the Blue Lake Wastewater Treatment Plant Improvements project, MCES project number 801800.

Background

A public hearing is required for a draft facility plan amendment prior to its adoption by the Metropolitan Council as condition for obtaining project financing through the Minnesota Public Facilities Authority.

Rationale

The Blue Lake Wastewater Treatment Plant (WWTP) uses approximately 42 MWhrs of electrical energy each day, with a minimum demand of about 1.4 MW each day.

This project provides for the construction of a 1.25 MW AC solar panel facility to supplement the utility power system and to provide a base line of power to the facility. Alternatives were developed to explore the life cycle cost effectiveness of the size of the facility and the tracking technologies available.

The tracking alternatives consisted of fixed arrays, single axis tracking arrays and dual axis tracking arrays. The fixed arrays were the most cost effective alternative. The size alternatives evaluated the sensitivity to energy production capacity.

When considering the grant amounts available to this project to offset the power costs, the 1.25 MW AC solar panel facility was the most cost effective alternative and requires a grant amount of \$4,400,000 to make the option an economic break-even consideration. The project is estimated to cost \$6,800,000.

Funding

Funding for this project will consist of budget from the Blue Lake Project 801800 and a grant(s) from other sources, such as principle forgiveness loan under PFA's Green Project Reserve (GPR) program, as well as State Bonding.

Known Support / Opposition

To be determined.