City of Santa Fe, New Mexico

memo

Date: February 24, 2012

To: Buckman Direct Diversion Board

Via: Rick Carpenter, Water Resources and Conservation Group Manager

From: Dale Lyons, Water Resources Coordinator

Subject: Status of BDD Booster Station 2A Solar Project

At the New Mexico Finance Authority Board meeting held on February 24th, 2012, the Board agreed to fund the BDD request for $5,000,000 to build the proposed Booster Station 2A Solar Project.

Now that the NMFA Board has approved Drinking Water State Revolving Loan Funding for the project, the design-build procurement can be advertised beginning on March 2nd, 2012. It is anticipated that the procurement will be concluded and a contractor will be hired by the end of April.

On January 23rd, 2012, both the application to modify the existing right-of-way for the proposed project and the plan of development were submitted to the BLM Taos Field Office. City staff has since met with BLM staff to discuss the necessary environmental permitting for the project. City staff is now engaged in obtaining competitive bids for archeological and threatened & endangered species surveys at the proposed development site.

Operations and maintenance costs for the proposed solar facility have now been included in project's financial projections:

BDD Booster 2A Solar Project Financial Projections

Energy consumption and Production	
BDD Booster 2A Average kWh usage/mo (12 months)	411,945.75
Average cost/kWh (on- & off-peak)	0.069416667
BDD Booster 2A Average charge/mo	-$27,168.73
BDD Solar Average kWh output/mo (11 months)	184,891.00
Waste Water Solar Average kWh output/mo (11 months)	212,523.64
Average solar output kWh/mo	198,707.32
BDD Booster 2A Average kWh usage/mo (12 months)	411,945.75

Average solar output kWh/mo	198,707.32
Average remaining billable kWh/mo	213,238.43
Average solar output kWh/mo	198,707.32
Average cost/kWh (on- & off-peak)	0.069416667
Average utility bill savings/mo	$13,793.60
NMFA Loan Funding	
Monthly payment on $2.5 million NMFA Drinking Water Loan	-$12,647.00
($5 million total award, 50% grant, 50% loan, 2% interest, 20 years)	
Operation and Maintenance	
Insurance cost/mo (Travelers premium $6,000/yr)	-500.00
Power monitoring, system testing and repair/mo ($10,000/yr)	-833.00
Inverter replacement/mo	-277.00
(500kW inverter replacement interval 10-15 years, cost of $0.1/watt)	
BLM lease fee/mo	-700.00
Total O&M/mo	**-2,310.00**
PNM Renewable Energy Credit (REC) Revenue	
Average solar output kWh/mo	198,707.32
Renewable Energy Credit revenue (REC = **$0.05**/kWh)	$9,935.37
REC revenue	**$8,771.97**
Average solar output kWh/mo	198,707.32
Renewable Energy Credit revenue (REC = **$0.07**/kWh)	$13,909.51
REC revenue	**$12,746.11**
Monthly Cash flow (w/out REC Revenue)	
Average utility bill savings/mo	$13,793.60
Monthly payment on $2.5 million NMFA Drinking Water Loan	-$12,647.00
O&M	-$2,310.00
Cash flow/mo	**-$1,163.40**
Monthly Cash flow (with $0.05/kWh REC Revenue)	
Average utility bill savings/mo	$13,793.60
Monthly payment on $2.5 million NMFA Drinking Water Loan	-$12,647.00
O&M	-$2,310.00
REC revenue	$8,771.97
Cash flow/mo	**$7,608.57**
Monthly Cash flow (with $0.07/kWh REC Revenue)	
Average utility bill savings/mo	$13,793.60
Monthly payment on $2.5 million NMFA Drinking Water Loan	-$12,647.00
O&M	-$2,310.00
REC revenue	$12,746.11
Cash flow/mo	**$11,582.71**