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**Project Summary/Abstract**

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Project Title: Tracking 44.1 Kilowatt Photovoltaic System Installed in Norfolk, Nebraska		
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NEO ADV RENEW. PROJECT SUMMARY/ABSTRACT

Nebraska Public Power District will install a 44.1 kilowatt sun tracking photovoltaic system connected to the grid at their Norfolk Operations Center. This system will be monitored for energy production hourly and compared to the predicted energy from the National Renewable Energy Laboratory "Solar Advisor Model" (SAM). Additional data will be collected for maintenance costs to calculate the total cost of energy on a per kilowatt-hour basis. The total project costs for this project are \$497,505 (100%) of which the requested amount is \$418,544 (84%) and the cash match is \$78,961 (16%).

The application of a sun tracking photovoltaic system at the Norfolk Operations Center will increase renewable energy generation capability of the NPPD system. The amount of renewable energy produced by the project is estimated at 79,100 kilowatt-hours per year.

The application of this high efficiency, state of the art, sun tracking photovoltaic system has the potential to avoid 50 metric tons per year of carbon emissions based upon Nebraska Public Power District system average fossil generating emissions.

The project is scheduled to be operational by year end 2010.