American Recovery & Reinvestment Act Application for PV Solar Energy Systems

School District Information

District Name: Gadsden Independent School District			Contact Person: Rafael "Ralph" Gallegos
Address: 1325 W. Washington			Title: Executive Director for Energy Management & Construction
City: Anthony	State: NM	Zip: 88021	Telephone: (575) 882-6943

Project Information

Grants will be awarded through a competitive application process. No more than one award may be given per district. The purpose of the funding is to purchase and install 100 kilowatt photovoltaic (PV) solar energy systems to support clean energy education in New Mexico's public schools and demonstrate the benefits of commercial-scale PV to communities throughout New Mexico. School districts are allowed to apply for one project per district and only one application per school district will be evaluated by the selection committee. Roof-top, ground mounted, and covered parking lot systems are the three mounting types that may be awarded from these funds. In order to accommodate a technically viable PV project your district must have the available land or roof area, a New Mexico-licensed contractor must install the system, and the system must comply with all applicable codes. Approximately 30 to 40 thousand square feet is required for these mounting types. Roof-top projects will only be funded for PV systems placed on roofs that are no more than 5 years old. If the school district is awarded funds, the district will have the option of procuring the project through the State of New Mexico price agreement or through a request for proposals (RFP). Provide information in the following sections, for evaluation by the selection committee for the possible points shown (100 points total).

1. Provide an overview narrative of the strengths and merits of the project. [15 points]

Generating part or all of a facility's electricity with photovoltaic (PV) systems is growing in popularity all over the United States. Whether the systems are used to lower peak demand costs, power an individual facility or enhance the green aspects of a project, even the smallest systems can help lower electric bills and clean up the environment.

A PV system will cut peak demand costs and help the Gadsden Independent School District reach its goal of getting 20 percent of its power from renewable sources. The system also needs to fit the design and maintenance needs of the school. The idea of using this new technology with a white PVC roof on the building makes for a perfect fit. The PVC roof is exactly the substrate needed for a PV system.

With society's interest in shrinking the carbon footprint this is a great opportunity for GISD to teach our future generations how it can be accomplished. In a relatively painless way, the district could do that and help achieve the district's goal of getting 20 percent of their power from renewable sources.

Because construction will be confined primarily to the roof it virtually has no impact on school operations. To get the most for its money, GISD isn't stopping at PV systems. It has also embarked on an extensive energy efficiency program (Conservation Altering Student/Staff Habits, C.A.S.H). A centralized energy management system handles 12 locations to a varying degree. The location selected for this project North Valley Elementary has a geothermal system for heating and cooling and Tracer Summit software that controls the heating, cooling and lighting in the building.

2. Please check which type of project your district is interested in applying for:

☒ Roof-top ☐ Ground mounted ☐ Covered parking lot

Please describe the gross area that you have available to install this type of system. If you are anticipating the installation of a roof-top system, please include the age and condition of the roof. If you are considering a covered parking lot project, costs for design and construction of the structure may not be included in the funding request. With this application please include a floor plan of the roof or overview of the property where you propose to install the equipment. [15 points]

North Valley Elementary was opened in March of 2008 and has 61,56 total square feet on 13 acres of land. The roof is one and one half years old and is in excellent condition.

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3. Describe any energy efficiency measures your district has implemented or plans to implement at the school in which you are applying for funds. If your district has had no opportunities please describe why not and what barriers have prevented your district from doing so? [10 points]

When built North Valley was designed with and uses a geothermal system to heat and cool the building. The building is also managed by an energy management system (EMS) installed by TRANE called Tracer ES. It is a web based system where the energy manager in coordination with the site's principal, assistant principal, building mechanic and head custodian develop schedules to run the heating, cooling and exterior lighting for the school. In October 2008 the school's C.A.S.H. team developed a plan to conserve energy and educate the students and staff on energy conservation (see attached power point) and by the end of the 2008-2009 fiscal year had saved 36.19% in comparison with the prior March through June usage.

4. Please describe how your school district will educate its students, faculty and staff on renewable energy, specifically to the newly installed project if awarded? (i.e. Educational displays in schools, outdoor signage, classroom lesson, etc.) [10 points]

In coordination with the C.A.S.H team the energy manager will develop materials to share with the students, faculty and staff as well as with the faculty and staff of all schools and the community introducing the PV system and the benefits that the students, faculty, staff and district will get from the PV system. Following is a list of areas that will be pursued:

- Add a section to Power Point describing the PV system and the expected impact on energy usage and the carbon footprint.
- Develop a flyer to send home with students introducing the PV system and the expected impact on energy usage and the carbon footprint.
- Provide lessons to the teachers at North Valley Elementary and other GISD schools to use in their classrooms.
- Develop out door signage to share the PV system with the community and also with the many users of High Way 28 where the school is located.
- Share with the local news papers and TV stations the details about the PV system project and what expected impact it will have.
- Share with Dr. Abdas Ghassemi, Executive Director of the New Mexico WERC, a Consortium for Environmental Education and Technology Development, at New Mexico State University the projects scope and expectations and offer to provide access to NMSU for teaching purposes.

5. If awarded please describe how your district will ensure security of the site and the project (i.e. fencing for a ground mounted project) [5 points]

The school is entirely fenced and with a roof top installation should be safe.

6. Will the project get significant day-to-day visual traffic? If so how? [5 points]

North Valley Elementary is located on Highway 28, a back road, leads you through that segment that runs from Canutillo, just north of El Paso, to Las Cruces, New Mexico, a scant thirty miles, called the Mesilla Valley, so named for its northern terminus at the old-town village of Mesilla, New Mexico With its long views, plentiful history, and great beauty, Highway 28, the valley's oldest byway, is heavily traveled as it provides an adventure through fragrant fields, dusty vineyards, and shady orchards, past villages, shops, churches. The known origin of the road is with the Spanish explorer Juan de Onate in 1598. The Highway 28 route approximates a portion of the legendary colonial Camino Real and a portion of the easternmost border of the 20,000-square-mile Gadsden Purchase of the mid-1800s, the last southwestern puzzle-piece to form the continental United States. This will provide great exposure to the project for locals as well as for travelers from El Paso, Texas, Las Cruces, N.M. and visitors from all over the country.

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7. Describe the school district's method of procurement for the complete PV system. In the selection of a PV system and contractor, does the school district plan to utilize a statewide price agreement or issue an RFP? [10 points]

GISD would is in the process of inquiring about company's in the state which have a state wide pricing agreement. If one of these companies can provide the required services and product in a timely manner this would expedite the process. If there is not a company who can meet those needs in the southern part of the state then the district would use the RFP route.

8. Indicate the district's ability to meet the time line of the system being operational by December 1, 2010. As an example, include staff and other resources to ensure that procurement and project management will stay on schedule, or proven success with projects being implemented in a relatively short time frame. [10 points]

GISD being the 4th largest district in the state of NM is accustomed to working with contractors and has the following staff in place to deal with a project of this magnitude.

Mr. Richard Chavez, Associate Superintendent for Support Services
Mr. David Boyd, Construction Coordinator
Mr. Rafael "Ralph" Gallegos, Executive Director for Energy Management and Construction
Mr. Alfredo Holguin, Director of Physical Plan

Also the district has completed the following projects in the last 5 years:

- New Vado Elementary School, completed December 2005 cost of $7,800,000

- New Chaparral High School, completed July 2007 cost of $28,900,000
- New North Valley Elementary School, completed January 2008 cost of $10,800,000
- New Q and R Building added to CHS, completed July 2008 cost of $7,840,000
- New Field Improvements, completed July 2008 cost of $2,830,000
- New Field House, completed November 2008 cost of $4,030,000
- New roofing project at Loma Linda Elementary School, completed March 2009 cost of $468,000
- New roofing project at Desert Trail Elementary School, completed March 2009 cost of $635,000
- New roofing project at Berino Elementary School, completed April 2009 cost of $538,000
- New roofing project at Chaparral Middle School, completed April 2009 cost of $906,000
- New gymnasium added to Santa Teresa High School, opened April 2009 cost of $5,500,000
- New parking lot and bus drop off area added to Santa Teresa High School, completed August 2009 cost of $1,200,000
- Renovation and additions of classrooms to Gadsden Middle School, completed August 2009 cost of $11,000,000
- New Gadsden Elementary School is in progress, at a cost of $13,000,000
- New Library, administration offices will be added to Gadsden High School, at a cost of $8,000,000

9. Provide documentation that the school board has taken formal action supporting the project (e.g., signed board minutes). [20 points]

The PV systems project was introduced to the GISD School Board at there October 22, 2009 meeting as a discussion item. It was then introduced as an action item at the November 12, 2009 meeting. See attached Board Meeting minutes.

Signature Authorization

I certify under penalty of perjury that to the best of my knowledge, the information in this application is true and correct. The Governing Board of the above named school district has authorized me to sign this application on its behalf.

Signature of District Superintendent or Designee	Title	Date

Contact Information

Complete and return by November 13, 2009 to:
Public Education Department
Capital Outlay Bureau
300 Don Gaspar Ave., Rm. 121
Santa Fe, NM 87501