

**STATE OF ARIZONA
SCHOOL FACILITIES BOARD**

Meeting Date: October 6, 2010

Agenda Item VII.c.

Subject: VII. ARRA Energy Grant Awards

**c. Consideration and possible vote to accept, reject or modify Phase II
Energy Efficiency Grant Awards**

**Cave Creek Unified
Douglas Unified
Marana Unified
Mohave Valley Elementary
Page Unified
Paradise Valley Unified
Tub City Unified
Tucson Unified
Wickenburg Unified
Willcox Unified**

As described in agenda item VII.a., the SFB has \$16,634,231 in ARRA Energy Grant funding for energy efficiency projects. Through a competitive selection process, the Board will provide grant funding for 30% of the project cost up to \$1 million per district. The district will be responsible for 70% of the project cost either through performance contracting or any available local funds.

The Phase I grant application process netted 105 applications from 44 school districts. The application project cost total reached \$103,810,266.

On August 4, 2010, the SFB reopened the application process for Phase II of the energy efficiency grant awards. Applications were due on September 10, 2010. The SFB received 17 applications with a total application project cost of \$18.3 million.

The criteria for project selection are the same as those used for the Phase I applications, Life-cycle payback, Energy savings measured by unit reduction, Energy savings measured by dollar reduction, and Impact on the school utility budget

Evaluation

Attached is the summary scorecard for all of the applications. Applications were evaluated based on the following criteria:

Life-cycle Payback/Cost Benefit Ratio: The cost benefit ratio is based on proposed project savings times its useful life versus grant funds requested. Cost benefit ratio = annual project savings x useful economic life/grant funds requested

Energy Savings measured by unit reduction: The unit reduction is based on energy savings in terms of Btu saved per square foot. Energy Savings = Btu saved/School Square Footage

Energy Savings measured by dollar reduction: The unit reduction is based on energy savings in terms of dollars (\$) saved per square foot. Energy Savings = Dollars (\$) saved/School Square Footage

Impact on the School Utility Budget: The electricity and gas savings are calculated against the utility budget that includes annual cost of gas and electricity. Percent Utility Savings = 100 X Annual savings (\$) / Annual Electricity & Gas bill (\$)

Useful Economic Life

The economic useful life of different building components is based on the Database of Energy Efficient Resources (DEER). DEER is a California Energy Commission and California Public Utilities Commission (CPUC) sponsored database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life (EUL) all with one data source.

Other Important Notes

- The evaluation team from the SFB and Department of Commerce Energy Office provided an opportunity to Energy Savings Performance Companies, School Districts and Contractors to discuss the applications.
- The evaluation team reviewed proposed energy savings and costs for each application, providing equal opportunity to each application.
- Savings are based on energy savings alone, and do not include operational savings.
- The federal guideline restricts the use of energy efficiency grant funds on water saving projects.

Recommended Awards

SFB staff recommends awarding 11 projects to 10 districts. These project applications were submitted with complete information and documentation. In total, these projects with an estimated cost of \$11,785,463 will save \$1,301,704 per year. The average payback for these projects is approximately nine years.

The remaining applications are still under review and may be recommended for award at the November Board meeting.

The projects recommended for award are as follows:

Cave Creek Unified

Desert Arroyo Middle School
Project Scope: Lighting upgrade

<u>Total Project Cost</u>	<u>\$325,725</u>
Amount Requested:	\$97,718
Recommended Award:	\$97,718
District Funds:	\$77,842
Estimated Savings:	\$24,520 per year

Energy Savings: The project is estimated to save 922 MMBtu per year.

Douglas Unified

14 Schools

Project Scope: Lighting Upgrade, HVAC control and Demand Control Ventilation

<u>Total Project Cost</u>	\$1,523,653
Amount Requested:	\$457,096
Recommended Award:	\$457,096

District Funds:	\$1,066,557
Estimated Savings:	\$233,894 per year

Energy Savings: The project is estimated to save 8,310 MMBtu per year.

Marana Unified

Marana High

Project Scope: HVAC upgrade & control, Lighting upgrade

<u>Total Project Cost:</u>	\$1,426,471
Amount Requested:	\$319,890**
Recommended Award:	\$319,890

District Funds:	\$1,106,581
Estimated Savings:	\$114,474 per year

Energy Savings: The project is estimated to save 4,778 MMBtu per year.

** The ARRA Energy Grant Program has a \$1 million cap per district. Marana Unified was previously awarded energy efficiency grant funding in the amount of \$680,110. The balance of \$319,890 is available for this project award.

Mohave Valley Elementary

4 schools and District Office

Project Scope: HVAC upgrade & control, Lighting upgrade & control, Demand Control Ventilation

<u>Total Project Cost</u>	\$829,644
Amount Requested:	\$248,893
Recommended Award:	\$248,893

District Funds:	\$580,751
Estimated Savings:	\$93,502 per year

Energy Savings: The project is estimated to save 3,333 MMBtu per year.

Page Unified

Page Elementary, Middle and High Schools

Project Scope: HVAC upgrade, HVAC control, Lighting upgrade, Lighting control

<u>Total Project Cost</u>	\$734,000
Amount Requested:	\$220,200
Recommended Award:	\$220,200

District Funds:	\$513,800
Estimated Savings:	\$66,740 per year

Energy Savings: The project is estimated to save 2,481 MMBtu per year.

Paradise Valley Unified

Cactus View Elementary and Sonoran Sky Elementary

Project Scope: HVAC upgrade & control, Lighting upgrade, Boiler Replacement

<u>Total Project Cost</u>	\$701,372
Amount Requested:	\$210,412
Recommended Award:	\$210,412

District Funds:	\$490,960
Estimated Savings:	\$94,167 per year

Energy Savings: The project is estimated to save 3,159 MMBtu per year.

Paradise Valley Unified

8 Schools

Project Scope: Lighting upgrade, HVAC control and Computer Power Management

<u>Total Project Cost</u>	\$2,223,710
Amount Requested:	\$667,113
Recommended Award:	\$667,113

District Funds:	\$1,556,597
Estimated Savings:	\$232,213 per year

Energy Savings: The project is estimated to save 9,022 MMBtu per year.

Tuba City Unified

8 Schools

Project Scope: Lighting upgrade, HVAC control and Computer Power Management

<u>Total Project Cost</u>	\$1,922,455
Amount Requested:	\$576,737
Recommended Award:	\$576,737

District Funds:	\$1,345,718
Estimated Savings:	\$232,213 per year

Energy Savings: The project is estimated to save 9,022 MMBtu per year.

Tucson Unified

3 Schools and District Office

Project Scope: HVAC upgrade, HVAC control and Lighting upgrade

<u>Total Project Cost</u>	\$361,976
Amount Requested:	\$108,593
Recommended Award:	\$108,593

District Funds:	\$253,383
Estimated Savings:	\$55,836 per year

Energy Savings: The project is estimated to save 1,749 MMBtu per year.

Wickenburg Unified

Wickenburg Elementary, Middle and High Schools

Project Scope: HVAC upgrade & control, Lighting upgrade, Demand Control Ventilation, Boiler Replacement

<u>Total Project Cost</u>	\$1,146,153
Amount Requested:	\$343,846
Recommended Award:	\$343,846

District Funds:	\$802,307
Estimated Savings:	\$111,094 per year

Energy Savings: The project is estimated to save 3,985 MMBtu per year.

Willcox Unified

Willcox Elementary, Middle and High Schools

Project Scope: HVAC upgrade, Lighting upgrade and Lighting control

<u>Total project Cost</u>	\$590,314
Amount Requested:	\$177,094
Recommended Award:	\$177,094

District Funds:	\$413,220
Estimated Savings:	\$43,051 per year

Energy Savings: The project is estimated to save 1,275 MMBtu per year.

PLEASE NOTE: these awards are subject to the federal approval of an environmental survey required by the National Environmental Policy Act. The survey has been completed and submitted to the US Department of Energy. No project can go forward until approval is received.

Board Action Requested: information action / described below

Board approval of the ARRA funded Energy Efficiency Grants as recommended by staff, subject to approval of the environmental survey required by the National Environmental Policy Act.

Attachments: Yes No