

**FY 2010 APPROPRIATIONS REQUEST**

**PHOTOVOLTAIC SOLAR PANEL SYSTEM FOR HIGH  
SCHOOL DISTRICT**

**SAN MATEO UNION HIGH SCHOOL DISTRICT**

**FEBRUARY 27, 2009**

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**February 27, 2009**

**Project Name:** Photovoltaic Solar Panel System for High School District

**Individual / Organization:** San Mateo Union High School District  
650 North Delaware Street  
San Mateo, CA 94401

**Amount Request:** \$30,000,000

**Appropriation Bill Account/Relevant Authorization law/bill/status:**

Department of Energy

**Local Contacts**

Linda Lees Dwyer  
Board President  
(650) 570-5007

Peter Hanley  
Board Vice President  
(650) 533-9256

Dave Pine  
Clerk  
(650) 576-9905

Stephen E. Rogers  
Board Member  
(650) 576-9905

Robert H. Griffin  
Board Member  
(415) 987-1944

**Organization's Main Activities:**

The San Mateo Union High School District, which celebrated its 100<sup>th</sup> birthday in 2007, serves six communities in the San Francisco Bay Area. Not only does the District provide an exemplary high school education to over 8,500 students in grades nine through twelve, but it also operates the largest adult school in San Mateo County, serving an additional 14,216 students. We provide education for the core academics, art, theatre, music, physical education, special education, biotechnology, industrial technology and computer science. Located at the northern tip of the Silicon Valley, our students have a strong interest in science and technology, especially those that create environmentally sound and sustainable environments.

**Total Project Costs:**

The main cost components for our solar photovoltaic project are as follows:

Architecture and Design:	\$ 2,000,000.00
Inspection/Division of State Architect Fees:	\$ 1,000,000.00
Project Management:	\$ 1,000,000.00
Construction:	\$26,000,000.00
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Total:	\$30,000,000.00

The above components will be competitively bid to maximize and ensure the best use of tax payer dollars.

**Project Description (timeline, goals, expected outcomes and specific uses):**

With six comprehensive high school campuses, a continuation school, and a large adult school, the District has significant roof space where photovoltaic solar panel systems would be installed. This project would eliminate 80% of our current power costs, saving **the District approximately 1.0 million dollars per year immediately**. Over the 25-30 year life span of these panels, as energy costs continue to escalate, the savings would easily reach \$3 million annually in about a decade. These funds would remain in critical educational programs to ensure all students in our District are academically successful rather than paid out in utility bills.

This project is essentially "*shovel ready*" as the District has completed the initial investigative work necessary to analyze which systems would be installed as well as the most appropriate and efficient locations. We estimate we could implement this project and see relief from our power bills within 9 months of receiving funds, and complete the project within 18 months. As early as nine months from the start, some of the solar work will be competed and the District will begin to recognize energy savings against our utility bills. Within eighteen months the entire project will be complete.

The funds would immediately generate positive economic activity, including architectural and engineering design, manufacture of the panels, and significant construction. We estimate at least 176 local construction jobs in multiple crafts would be created.

As stated earlier, this project would in turn be used to teach our students about the benefits of renewable energy. Many generations of students would experience firsthand the benefits of renewable solar power and would be taught about the technology and science that supports it.

**Sustainability** (How will this earmark serve to expand the capacity of your organization and how will your organization sustain this work beyond the federal funding?):

No better use of tax-payers dollars exists than to invest in a project that will not only boost the dollars available for classroom instruction, create pollution-free and sustainable energy in our

community for the long term, but will also eventually pay for itself. The maintenance of solar panels (especially given the climate in the Bay Area) is relatively minor. Existing District maintenance staff would only need to clean the panels a few times a year for the District to recognize the systems' benefits.

**Local Significance of Project:**

This is exactly the type of visible infrastructure project taxpayers will appreciate for decades to come. Moreover, parents and students will be continuously reminded about the additional classroom funding available due to solar power. This project would represent to all that the government and the local administration care about being green, care about renewable energy, care about minimizing our carbon footprint, and care about reducing our impacts on global warming.

As stated above, the financial relief to our District's General Fund would in turn provide immediate relief to teachers and staff. This means that your grant would provide immediate relief inside the classrooms itself.

**How many residents of the 12<sup>th</sup> will benefit from this project? (jobs created, services rendered to, how many people, etc.)**

This funding could immediately provide work for approximately 167 individuals ranging from architects, engineers, electricians, carpenters, roofers etc. A recently adopted Project Labor Agreement (PLA) by the Board of Trustees of our District assures that we will attract high quality local contractors and that local construction workers will receive prevailing wage and health and pension benefits. This PLA assures you that the federal dollars we receive will benefit the local 12<sup>th</sup> CD residents.

The fully installed project will benefit 57,654 students, staff, and community users of our facilities by reducing the carbon footprint and reallocating precious dollars currently used for utility expense rather than for educational purposes.

**Support of local organizations, elected officials:**

See attached letters:

**Does the organization have any other funding requests for this project?**

We have NOT received any Federal, State, local or private funding.

**Has the organization previously received Federal funds for this project?**

We have NOT previously received any Federal funding.

**Please attach a list of you organization's staff and board members.**

See attached

**Please attach any additional relevant materials.**

See attached



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*San Mateo Union High School District Teachers' Association, Inc.*

520 S. El Camino Real • Suite 526 • San Mateo, CA 94402

(650) 558-9690 • FAX (650) 558-9693

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February 27, 2008

The Honorable Congresswoman Jackie Speier  
400 S. El Camino Real – Suite 410  
San Mateo, CA 94402

Dear Congresswoman Speier:

I am writing in support of the San Mateo Union High School District's (SMUHSD) photovoltaic project appropriation application. The teachers of SMUHSD fully support the implementation of green technology and solar power generation. We believe that the District also enjoys the support and encouragement of its 24,000 high school and Adult School students in this endeavor. The students of the District reside primarily in six diverse communities along the San Francisco bay area peninsula. In an effort to prepare our students to become responsible citizens of those communities and the future leaders of America, it is critical that the District set an example by taking actions to protect our environment, in particular, by utilizing green technology such as solar power. The installation of a photovoltaic system will allow the District maximize efficiency in its use of energy. The Federal appropriation, if approved, will have a significant positive effect on the students of this district. Furthermore, it will also positively affect working conditions of our staff, the services to our families, and opportunities for community users at large.

More than just a way to save on power, the 3.5 kilowatt photovoltaic project represents a commitment on the part of the school district to become more energy efficient as well as raise awareness of conservation and sustainability by lowering overall energy consumption. The benefits of this project on classroom instruction, both during construction and in operation after completion, are innumerable. The project will provide unique educational opportunities for all of our students. As a learning tool, the solar power system will introduce students to renewable energy technology and provide them with multiple opportunities to explore local, national and global energy issues in an interactive and hands-on way. Having direct access to a functioning solar energy plant will also facilitate curriculum development and augmentation in the areas of environmental science, energy and electronics technology, sustainability, economics, etc. The possibilities for enrichment are endless.

Finally, from a budgetary point of view, this project will expand the educational opportunities offered to our students. The District's utility cost would potentially be reduced by \$1.2M annually. The recent downturn in the economy has required the District to eliminate \$5.8M from its educational budget. These reductions have included the loss of critical educational programs. The savings from the implementation of photovoltaic power generation will allow some of the educational programs to be reinstated.

The teachers of San Mateo Union High School District fully support the District's application and appreciate your consideration.

Sincerely,

Craig Childress  
President, San Mateo Union High School Teachers' Association



California  
School  
Employees  
Association

*The nation's largest  
independent classified  
employee association.*

February 27, 2008

The Honorable Congresswoman Jackie Speier  
400 S. El Camino Real  
Suite 410  
San Mateo CA 94402

Dear Congresswoman Speier:

The entire California School Employees Association at San Mateo Union High School District fully supports the District's photovoltaic project appropriation application. This proposed project includes infrastructure improvements and a solar energy system. During this time of economic uncertainty, this critical project will help the San Mateo Union High School District fund environmentally sound technology that will reduce its carbon footprint while reducing the educational operating budget.

Our project is crucial and is a unique opportunity for your appropriation consideration because a school district is a large institution that uses a lot of energy, and is very visible in the community. What better place to install photovoltaic panels than on our large open roof tops. Another great benefit of supplying solar technology to our schools is the opportunity to educate our students, faculty, staff, parents and community users about alternative energy. The savings from the utility bill can be used to provide critical programs and services that have recently been reduced.

Lastly, solar power means clean air, local jobs and energy independence. What better way to invest in this community.

Sincerely,

Lucy Cerecedes  
Chapter 519 President California School Employees Association

Dwight Dunn  
Chapter 519 Vice President California School Employees Association



Aragon High School  
Environmental Impact  
Committee

900 Alameda de las Pulgas | San Mateo, California 94402-3357

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September 27, 2009

Congresswoman Jackie Speier  
400 South El Camino Real, Suite 410  
San Mateo, California, 94402

Dear Congresswoman Speier:

For the past two years, the Aragon Environmental Impact Committee has worked tirelessly with trustees and officials of the San Mateo Union High School District to find a way to finance solar power for all six of our high schools. Unfortunately, as a result of various combinations of high panel prices, budget cuts, and a dismal bond market, the financing solution has eluded us. With hope, support from your office will help us finally ascertain the funding for which we have been in desperate search all this time.

Solar energy for the District is a worthwhile use of federal funds in the following ways:

- Money hemorrhaged in high electricity costs every year would be immediately used to fund the actual education of our students. Just last night, the school board was forced to make serious cuts in next year's budget because of the dire financial situation we are currently in. Without a long-term solution such as solar to our current funding shortfall we will be forced to make even more cuts—ranging from the elimination of the seven-period day, reductions in after school sports programs and the arts, and the laying off of support staff and teachers—in the next few years alone. Solar would largely remedy this situation.
- Running six large high schools on solar energy would be highly beneficial for the environment. Not only would it considerably reduce our community's carbon footprint, but it would also lead us toward a greener economy sustained by clean, renewable power instead of nonrenewable, polluting fossil fuels.
- Placing large-scale solar projects on our local high schools, which serve as centers of learning for their respective communities, will send a positive message to students, parents, and neighbors—a message that we as a community can have a significant positive impact on the world from mere local actions.
- A solar project of this magnitude would surely bolster our local green economy, helping to support the many local firms and green jobs tied to clean, renewable energy production.

This list is certainly not all-inclusive, but it will hopefully convince you of the high value of this project. An investment such as this will provide not only high fiscal dividends but also high returns in many facets of our community. Please support our project.

Respectfully yours,

Respectfully,

Jason Bade  
Chair

# Green Youth Alliance

**OFFICE**

533 Airport Boulevard | Suite 400  
Burlingame, California 94010

**PHONE**

650.245.0456

**FAX**

650.373.2002

**EMAIL**

[gya@greenalliance350.org](mailto:gya@greenalliance350.org)

**WEB**

[www.greenalliance350.org](http://www.greenalliance350.org)

February 27, 2009

The Honorable Congresswoman Jackie Speier  
400 South El Camino Real, Suite 410  
San Mateo, California 94402

Dear Congresswoman Speier:

We heard the great news today about the possible allotment of funds for the installation of solar panels covering the needs of the high schools in the San Mateo Union High School District. As advocates of energy efficiency and sustainability, this step means a lot to us, as we see it as a significant move forward in the greening of our local communities.

As an organization focused around educating youth, a project such as this would provide immense learning opportunities. Solar panels can be incorporated into science, social studies, and mathematics curricula in numerous ways. Solar panels will also free up large sums of money—formerly used to pay high electricity bills—to be used to further fund our childrens' educations—certainly a worthy investment.

Please accept our appreciation for the work you have put into blazing a promising path in the transition toward the use of renewable energy. You have, again, shown us that political leaders can be staunch supporters of positive change as we meet the challenges of creating a more sustainable future together.

With Deep Appreciation,

Sue Chow, Ph.D  
Director



Congresswoman Jackie Speier  
400 S. El Camino Real, Suite 410  
San Mateo, CA 94402

February 27, 2009

Re: In Support of Funding for the Aragon High School Solar Project

Dear Congresswoman Speier,

I am writing to ask your support in obtaining federal funding for the 4 megawatt (MW) photovoltaic system (PV) that is being proposed for Aragon High School in San Mateo.

It is my understanding that the potential funding will become available through the American Economic Recovery and Reinvestment Act (AERRA). One of the primary purposes of the AERRA is to maintain existing jobs and increase the number of Americans that are employed. The proposed PV project will save and create jobs in two ways. First, the PV system will reduce the school district's overall energy expenses. These savings to the General Fund can then be used to avoid teacher layoffs and maintain school programs. The energy savings do not occur just one time - the savings occur annually for 20-30 years, thus providing the district with greater financial stability in the years to come. Second, the PV project will provide more than 75 job years for installers, electricians, and designers. And should the solar panels be produced in the U.S., the number of job years will increase significantly.

In addition, more than \$5M of the total project cost can be expected to remain in the local economy in the form of wages assuring benefits to local government and businesses.

And finally, the PV system can be expected to avoid approximately 1,600 tons of CO2 and 3 tons each of nitrogen oxide and sulphur dioxide annually - reducing the carbon footprint of the school significantly and eliminating other toxic air contaminants. (These claims are supported by a calculator developed by Economic & Planning Systems, Berkeley, CA - attached.)

Investing in large scale PV systems on our public schools is a win for everyone and the environment. We have also learned that doing so also motivates students and the school community to do more to reduce their impact on the planet. I encourage you to do all that you can to support this effort. Thank you.

Sincerely,  
s/Tom Kelly, Director

New website: [www.heliosproject.net](http://www.heliosproject.net)

cc: Jason Bade



COUNTY OF SAN MATEO  
RECYCLEWORKS

02/27/09

Reference: Solar Projects for Schools

To Whom It May Concern:

RecycleWorks supports solar projects for schools throughout San Mateo County. Solar Projects are a great way to teach renewable energy and reduce a school's Carbon Footprint at the same time. The more solar projects that are occurring in our County will grow the County's green, clean tech economy and create green collar jobs for our residents. The County is currently considering installing solar panels to power one of its office buildings and encourages schools, cities, residents, and businesses to also take action to fight climate change.

Sincerely,

Gerald Schwartz  
Resource Conservation Specialist  
RecycleWorks Schools Program  
Email: [gschwartz@sanmateo.ca.us](mailto:gschwartz@sanmateo.ca.us)  
Phone: (650) 599-1424

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A resource center dedicated to reducing waste.

555 County Center, 5<sup>th</sup> Floor  
Redwood City, CA 94063

[www.RecycleWorks.org](http://www.RecycleWorks.org)

Hotline: (888) 442-2666  
Fax: (650) 361-8220

**From:** Jason Bade (jason.bade@gmail.com)  
**To:** mcmanu.liz8235@sbcglobal.net  
**Date:** Friday, February 27, 2009 4:37:00 PM  
**Subject:** Letter 3

Jason Bade | 650.274.5885 | [jason.bade@gmail.com](mailto:jason.bade@gmail.com) | [www.greeniusreport.blogspot.com](http://www.greeniusreport.blogspot.com)  
Please consider the environment before printing this email.

----- Forwarded message -----

**From:** Joanne Bohigian <[jb@whaddyathink.com](mailto:jb@whaddyathink.com)>  
**Date:** Fri, Feb 27, 2009 at 4:32 PM  
**Subject:** Grant Funds  
**To:** Jason Bade <[jason.bade@gmail.com](mailto:jason.bade@gmail.com)>

I am writing as a resident of Foster City, interested party and citizen of San Mateo County to urge you to support the request from the San Mateo Union High School District to be chosen as a grantee for federal funding in support of their efforts to install solar panels.

I have come to learn a great deal about the merits of solar power as an alternative source of energy and very much hope you will support this request.

Thank you for your consideration.

Kindly,

Joanne M. Bohigian

Principal

whaddyathink llc  
direct (650) 245.5079

**Sent from JB's Blackberry**

**From:** Jason Bade (jason.bade@gmail.com)  
**To:** mcmanu.liz8235@sbcglobal.net  
**Date:** Friday, February 27, 2009 4:39:55 PM  
**Subject:** Letter 5

As an architect, building official who advocates Sustainability, Green Building, and parent of 4th grader, resident of Foster City, just like our fellow residents of City of Foster City, and San Mateo, we are concerned about global warming and how it will impact local communities, if there will be good effort in considering renewable energy (i.e. Solar, Wind, Geothermal), we are all for it. And, it will be inspiring to start with school project, which will educate our children as local groups for next generation that make a difference, to reduce carbon footprints, and reduce impacts on natural resources.

Per our ex-mayor Ms. Pam Frisella's request, I would like to encourage you to support the request from the San Mateo Union High School District for funding of their efforts to install solar panels.

I would appreciate if Ms. Jackie Speier could see the request and provide available federal grants for solar on the high schools in need.

Sincerely,

Kenneth Huo

Town of Atherton

Jason Bade | 650.274.5885 | [jason.bade@gmail.com](mailto:jason.bade@gmail.com) | [www.greeniusreport.blogspot.com](http://www.greeniusreport.blogspot.com)  
Please consider the environment before printing this email.

**From:** Jason Bade (jason.bade@gmail.com)  
**To:** mcmanu.liz8235@sbcglobal.net  
**Date:** Friday, February 27, 2009 4:38:53 PM  
**Subject:** Fwd: Grant Funds

Jason Bade | 650.274.5885 | [jason.bade@gmail.com](mailto:jason.bade@gmail.com) | [www.greeniusreport.blogspot.com](http://www.greeniusreport.blogspot.com)  
Please consider the environment before printing this email.

----- Forwarded message -----

**From:** <[p.frisella@comcast.net](mailto:p.frisella@comcast.net)>  
**Date:** Fri, Feb 27, 2009 at 3:13 PM  
**Subject:** Grant Funds  
**To:** [jason.bade@gmail.com](mailto:jason.bade@gmail.com)

I am writing as a citizen of San Mateo County and also a member of the City Council of Foster City. I would like to encourage you to support the request from the San Mateo Union High School District for funding of their efforts to install solar panels.

We have a sustainability task force in Foster City and have talked about this as well. After reading not only the environmental impact they would have but the financial one as well I strongly ask for your help in this quest.

Thank you for your consideration and I may be reached at 650-349-7516

Thank you,  
Pam Frisella  
Councilmember Foster City



**Sustainable  
San Mateo County**  
Economy. Equity. Environment.

February 27, 2009

Congresswoman Jackie Speier  
400 South El Camino Real, Suite 410  
San Mateo, CA 94402

Dear Congresswoman Speier,

Sustainable San Mateo County is a local nonprofit that is dedicated to the long-term health of San Mateo County's environment, economy and social equity. One of our young leaders, Jason Bade of Aragon High School, has been working hard to increase Solar PV use in the San Mateo Union High School District. Sustainable San Mateo County and I support Jason in his efforts and I would ask that you also assist him in any way you can.

As you know, the deployment of Solar PV in San Mateo County has many benefits both locally and nationally, including:

- Reduced need for fossil fuel energy, which lowers our CO2 emissions and other negative environmental impacts associated with the fossil fuel industry;
- Once paid off, the Return on Investment (ROI) for installing solar on our area schools will be a significant cost savings on utility bills, freeing up money for other educational needs;
- Installation of Solar PVs on our schools will provide more work for our emerging green collar economy; which as you know is a priority of President Obama.

Thank you, Congresswoman Speier, for your support of Jason Bade. He is an example for not only other students to follow, but also leaders of our community. Please feel free to contact me directly if you have any questions about Jason or his work.

Kind regards,

Tyler Hammer  
Executive Director  
Sustainable San Mateo County  
177 Bovet Road, 6<sup>th</sup> Floor  
San Mateo, CA 94402  
(650) 638-2323  
[tyler@sustainableanmateo.org](mailto:tyler@sustainableanmateo.org)  
[www.sustainableanmateo.org](http://www.sustainableanmateo.org)

February 27, 2009

Congresswoman Jackie Speier  
400S S. El Camino Real, Suite 410  
San Mateo, CA 94402

Dear Congresswoman Speier:

I am writing to you in support of the San Mateo Union High School District grant request regarding solar panel funding for the district. As a member of Aragon School Site Council, I have seen over the past two years the immense challenges that public schools face. Just last night, the school board approved some cuts, and while the ax missed the most key programs, students will nonetheless be negatively impacted next year with fewer teachers, support staff, class sections, and instructional materials.

Solar panels are a solution to this problem. Not only are they a boon for the environment, but they would also help save millions of dollars for the school district over the long term. Though I will be graduating this May, I can see the long-term benefits that my current and future peers will be able to enjoy with money being freed up from the district budget each year. Without electric utility costs, Aragon and its sister schools will be able to afford the teachers, programs, and support staff that were cut last night. This would also undoubtedly make the job of balancing the district's budget in the future infinitely easier.

In short, this project would be very beneficial to the 12<sup>th</sup> District. It would help the environment by not only reducing the school district's environmental impact, but also by setting a model for others to do the same elsewhere. It would help local businesses and labor, which would receive the contracts and much-needed business. It would save the jobs of teachers and support staff. And perhaps most dear to my heart, it would help the students whose schools are desperate for stable funding in the wake of the economic and state budget crises better obtain the education they deserve.

I urge you to support this grant proposal.

Sincerely,

Scott Bade  
Student Representative  
Aragon School Site Council

SAN MATEO HIGH SCHOOL

## Student Government

506 N. Delaware St., San Mateo, CA 94401 | Phone: (650) 558-2333 | Phone: (650) 762-0152 | Fax: (650) 762-0265

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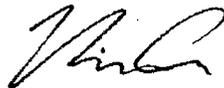
February 27, 2009

Congresswoman Speier:

Financial support for clean energy could not be more crucial than it is today. With the economy in freefall, schools in our San Mateo Union High School District and across the nation are suffering from severe budget cuts. What many do not realize is that investing in clean energy today will save millions of dollars over time—money that can be used to save classes and give students an opportunity to perform to the best of their abilities.

As it stands, the phrase “the sky is the limit” is hardly true for many aspiring high school students, but by harnessing all of the power the sun can offer—by inching closer to the sky—we can redeem the reputation of public education. On behalf of the students of San Mateo High School, I thank you for your support of clean energy, and I look forward to seeing a bright future for our school district, powered entirely by the sun.

Thanks,



Nicholas Chen  
Student Body President

SAN MATEO UNION HIGH SCHOOL DISTRICT  
2008-2009

BOARD OF TRUSTEES

Peter H. Hanley, President/Vice President  
peterhanley@aol.com

Term Expires 2009  
(650) 522-8436

Linda Lees Dwyer, Vice President/President  
ldwyer@smuhsd.org

Term Expires 2009  
(650) 570-5007

Dave Pine, Clerk  
dave.pine@comcast.net

Term Expires 2011  
(650) 579-6584

Stephen E. Rogers, Trustee  
srogers@smuhsd.org

Term Expires 2011  
(650) 347-5632

Robert H. Griffin, Trustee  
rgriffin@smuhsd.org

Term Expires 2009  
(650) 349-4660

Charlotte McNay, Manager of Board Operations  
cmcny@smuhsd.org

(650) 558-2202

Katie Imielska, San Mateo - Fall 2008  
cmcny@smuhsd.org

Student Representative

Adam Klein, Burlingame - Spring 2009  
cmcny@smuhsd.org

Student Representative

**ON HIGH SCHOOL DISTRICT  
 ORGANIZATIONAL CHART  
 2009-2010**

