

A Second Nature Initiative  
**CAMPUSGREENBUILDER**

## Institution Profile: East Los Angeles College

Los Angeles, CA  
Community College  
Hispanic Serving Institution (HSI)  
Enrollment: Approx. 30,000

### Brief History

East Los Angeles College (ELAC) is one of the nine public institutions of the Los Angeles Community College District (LACCD). Opened for classes in September of 1945, ELAC is a two-year institution located in the Los Angeles suburb of Monterey Park.<sup>1</sup> The institution was established in June 1945 by the Los Angeles City Board of Education on the campus of Garfield High School with an enrollment of 380 students and 19 faculty members. The campus was moved to its present 82-acre site in February of 1948. Today, East Los Angeles is the largest college (by enrollment), with as many as 30,000 students, in the largest community college district in the world.<sup>2</sup>



Many of the buildings currently in use were originally erected as temporary facilities. These buildings have long since exceeded their anticipated use, and the condition of the buildings is not optimal for the educational needs of the many students and faculty members that continue to employ the facilities. There has been constant struggle to maximum utilization despite the condition.<sup>3</sup>

However, along with the student achievement, East Los Angeles College is committed to providing state-of-the-art facilities to serve the needs of the students and its community. From the support and passage of recent bond measures, East Los Angeles College has embarked upon a large capital construction campaign, bringing over \$400 million of economic development to the community.<sup>4</sup>

### Academic Programs and Courses

East Los Angeles College offers associates degrees (arts and science) and certificates in over twenty-five subjects such as Journalism, Nursing, Physical Education, Engineering and Life Sciences.<sup>5</sup> The institution tends to concentrate its instruction in a few key disciplines. East Los Angeles College students most commonly major in a field related to real estate and construction management, family and social work, and security and law enforcement.<sup>6</sup> The college is dedicated to help students achieve associate of arts degrees, general education, skill/certificates, and personal development.

<sup>1</sup> CityTownInfo.com "East Los Angeles College." Retrieved August 19, 2009.

<sup>2</sup> East Los Angeles College Foundation. "East Los Angeles College." Retrieved August 19, 2009.

<sup>3</sup> Tegtmeyer, Depanian & Miller Architects (14 December 1998) "Facilities Master Plan, East Los Angeles College." Retrieved August 19, 2009.

<sup>4</sup> East Los Angeles College Foundation. "East Los Angeles College." Retrieved August 19, 2009.

<sup>5</sup> StateUniversity.com "East Los Angeles College." Retrieved June 29, 2009.

<sup>6</sup> CityTownInfo.com "East Los Angeles College." Retrieved August 19, 2009.

ELAC ranks second in the nation in terms of Hispanic student transfers to four-year institutions and is the top California degree and certificate producer for the ethnic group.<sup>7</sup> For a more extensive list of subjects and departments, please visit <http://www.elac.edu/academic/departments.htm>.

## **SUSTAINABILITY MISSION**

### **Institution and Sustainability**

East Los Angeles College (ELAC), along with other institutions of the Los Angeles Community College District (LACCD), is a signatory of the [American College and University Presidents Climate Commitment \(ACUPCC\)](#). Sustainability initiatives at East Los Angeles College are directly linked to standards set by the Los Angeles Community College District. Sustainability practices such as recycling, capital improvement that adheres to green principles and energy efficiency are currently the crucial issues the district is focusing on. To investigate the existing efficiencies of the energy systems, a baseline greenhouse gas (GHG) inventory was created at East Los Angeles College. The Los Angeles Community College District (LACCD), the nation's largest community college district, educating nearly 200,000 students each year, is the first community college district to join the California Climate Action Registry. Over the course of the College District's \$2.2 billion Proposition A/AA construction program, all nine colleges will work with the Registry to increase awareness of GHG emission issues and endeavor to become environmental role models for California's educational institutions.<sup>8</sup>

### **Green Initiatives on Campus**

East Los Angeles College, separately and congruently with the standards set by the LACCD, is making considerable changes of its own to implement sustainability on its campus. The primary groups in addressing sustainability issues on campus are: The "Energy Team," which works towards implementing energy efficiency throughout the campus, the "Green Team," which is primarily in charge of addressing sustainability issues at East Los Angeles College while the "Sustainability Building Program" that oversees LEED® building initiatives and construction across the LACCD. The ELAC also collaborates with industry experts on its sustainability initiatives. For example, the "Energy Team" at East Los Angeles College works with the institution's board of trustees to execute and manage campus initiatives. The "Energy Team" also oversees the program currently underway with CHEVRON. This Energy program is currently the most prominent and extensive initiative being implemented on campus with the goals to:

1. Help oversee design and operations of the central plant for each campus. Eight of the nine campuses have a central plant to improve energy efficiency.
2. Contract with utility companies to use technology that will pay for itself through efficient usage.
3. Install a suite of energy efficiency technologies (Photovoltaic and geothermal) that will relieve dependency on fossil fuel. One of the LACCD campuses has the largest energy efficiency system in the U.S. (a 500-unit collector system, which helps supply cooling and heating to the entire campus).

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<sup>7</sup> East Los Angeles College Foundation. "East Los Angeles College." Retrieved August 19, 2009.

<sup>8</sup> California Climate Action Registry. (July 6, 2009). "Total Emissions Summary Report – Los Angeles Community College District."

East Los Angeles College is also embarking upon a rigorous recycling program and offers education programs that focus on the issues, challenges and opportunities in the context of sustainability. Following is the list of such sustainability initiatives that are undertaken at the campus:

### **Recycling Initiative:**

- ELAC will be soon installing a combination of twenty-five (25) Big Belly® Solar Compactors/ Receptacles. The compactors will include five (5) single standalone solar compactors for regular trash and twenty (20) combination units that will be comprised of twenty (20) solar compactors connected with twenty (20) bottle/can receptacles.
- The institution will receive a large solar-powered Marathon GreenBuilt® Compactor to compact their recyclable materials and reduce hauler trucks trips to the campus. This will in turn reduce the use of fossil fuels and vehicular traffic on the roadways. This strategy will save operating funds as well as reduce the campus' carbon footprint.
- The compactors (Big Belly® and GreenBuilt®) will be equipped with wireless monitoring sensors to inform the staff about when to empty the compactors.

### **Operations and Maintenance Initiative:**

- East Los Angeles College is also working towards developing a more efficient operation and maintenance strategy and training knowledgeable staff.
- ELAC will receive solar-powered electric carts for passenger transport as well as for the transportation of the facilities staff.
- The facilities operations and maintenance team will receive a variety of equipment that utilize ionized water and microfiber cloths and mops that will reduce the reliance on cleaning products that may contain chemicals and pollutants.

### **Other Initiatives:**

- The institution plans on introducing a computerized irrigation control system to monitor and minimize water used for irrigate around the campus.
- Hydration stations will be installed at the fitness center and gymnasium for students to refill water bottles with purified water while aiming to eventually eliminate the purchase of bottled water.

East Los Angeles College, and the other institutions of the LACCD are members of the California Climate Action Registry. As stated in the [Total Emissions Summary Report of the Los Angeles Community College District](#) dated 6 July 2009, the District began voluntarily reporting its annual greenhouse Gas (GHG) emissions and now the district is planning to go completely off the grid while reducing its emissions to zero by pledging to make all of its campuses solar-powered.

- In-line with the above, the institution instituted a site management program to boost the energy efficiency of its existing building by retrofitting them with solar and geothermal energy systems. The institution has contracted CHEVRON to complete a series of photovoltaic arrays that will offset electricity usage by approximately 16%.

- The sustainable building principles implemented at all campuses within the LACCD network follow Leadership in Energy and Environmental Design rating system. To streamline the green building projects on the campuses of LACCD, the district has instituted a Sustainability Building Program for the oversight of green building projects – new construction as well as renovation projects. In addition, the institution has mandated that each new building will have to be designed and constructed to at least LEED® Silver standard. Each building must receive at least 10% of its energy from the photovoltaic system.

In 2002, the Los Angeles Community College District (LACCD), with the help of the Proposition A Bond Program Managers (DMJM/JGM), presented a list of recommendations, which are now the basis for the sustainability policies across the LACCD campuses. The document outlines sustainability standards for new constructions as well as renovations. The recommendations also outline the role of the Board of Trustees in determining whether new projects should be approved or not. This document was updated in 2009 to provide specific details on mandatory and recommended actions that need to be taken.

### Campus Green Building

In 2002, the Los Angeles Community College District's Board of Trustees also made a commitment to design and build environmentally friendly educational facilities that would reduce energy consumption and dependence on non-renewable power sources. Today, the District's award-winning \$6-billion Sustainable Building Program, which will add approximately 90 new green buildings throughout its nine colleges, has become one of the nation's largest green building efforts and a model for other educational institutions.<sup>9</sup>

East Los Angeles College began capital improvement projects that include the installation of solar panels, the construction of a new parking structure and that of the new Men's Baseball Facility among other things. Construction of the \$65-million Performing and Fine Arts Complex is scheduled for completion in the spring of 2010. This building is expected to meet the highest achievable LEED® certification as required by the LACCD Sustainable Design Standard document. This new complex will house the College's Vincent Price Museum, Recital and Theater Halls. (For more information, please go to <http://www.laccdbuildsgreen.org/elac.php>). The 40,382-square-foot gallery will include workshops and a lecture hall. It also will be home to more than 2,000 art pieces from the Vincent Price Collection – estimated to be worth \$5 million. The 77,078-square-foot recital hall will include facilities for painting, sculpture, print-making, dance and ceramics/sculpture. There will also be design and drawing studios, music classrooms, choir and music libraries, music computer labs and rehearsal space. The 42,110-square-foot theater building will have a drama theater, an experimental black box theater, costume workshop and rehearsal space. (For more information, please go to [http://www.laccdbuildsgreen.org/elac\\_news\\_release\\_article.php?newsrelease\\_id=169](http://www.laccdbuildsgreen.org/elac_news_release_article.php?newsrelease_id=169)).

### Challenges in regards to Building Green on Campus

At this stage of the energy and sustainability initiatives at the college, the campus community and governance are supportive of the projects and recognize that they are cost-effective and positive steps toward improving the campus and achieving energy efficiency with the ultimate goal of pursuing climate neutrality. The primary challenge while building green on campus is directly

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<sup>9</sup> Association for the Advancement of Sustainability in Higher Education. "Los Angeles Community College District Campus Sustainability Profile." Retrieved September 2, 2009.

associated with the cost or the upfront premium of building green. The administration has to grapple with this initial investment any time a new energy efficiency system plans to get introduced on the campus. As a result, there is also the difficulty of advocating for green buildings, given the belief that they come with a higher cost. Also following this, public relations and promotion of the campus initiative outside of the campus becomes a challenge as well.

## Identifying and Assessing Opportunities to Build Green

The State of California has long promoted reduction of carbon footprint and GHG emissions. The "Grid Neutral" initiative is intended to make state colleges and school districts energy efficient and eventually energy independent by enabling them to produce their own energy. East Los Angeles College, as part of the LACCD, was concerned that the campus will be burdened by increase in energy cost as well as greenhouse gases across the campuses. Taking advantage of the tax incentives and financing opportunities, the LACCD received the encouragement to join the movement to combat global warming and climate crisis in its own capacity.

## Green Building Protocols

The Los Angeles Community College District (LACCD) has prepared a Sustainability Design Standards document, which outlines the district's goals and established standards for renovations and new construction based on the LEED® requirements. "Any LACCD project that is required to meet these Standards shall aim to achieve the highest possible level of LEED® certification. This being the case, all LEED® prerequisites, and some LEED® credits, will be "mandatory" for all projects. It is left to the project team to choose among the various "recommended" practices to achieve the highest possible level of LEED® certification." The document covers the six areas of LEED® criteria:

- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality
- Innovation in Design

For each campus, a checklist is provided that indicates the recommended best practices and mandatory measures to which the campus building team must abide. For example, ELAC and all other campuses in the district are required to reduce heat island effects generated by rooftops and other surfaces, as well as reduce water consumption by at least 20%. The LACCD's green procurement policies also have resulted in an increased demand for recyclable materials and furniture. Thanks in part to the LACCD's demand for furniture, lighting and flooring products with substantial recycled content, manufacturers are now selling environmentally sensitive products, including furniture made with 100 percent renewable materials. The District has made its bulk purchasing process available to all California educational and governmental agencies as well as nonprofit organizations, giving these groups the opportunity to bulk purchase sustainable products at discounted rates.<sup>10</sup>

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<sup>10</sup> Association for the Advancement of Sustainability in Higher Education. "Los Angeles Community College District Campus Sustainability Profile." Retrieved September 2, 2009.

## GREEN BUILDING PROJECT PROFILE

### Project Introduction

#### *Solar Farm*

Functions: Solar arrays providing electricity

Completion: April 2008

Approximate Built-up Area: 130,000 sq.ft.

East Los Angeles College is the first to power up a 1.2 megawatt photovoltaic (PV) solar farm, located in the Northwest Parking Lot as part of the district's efforts to minimize utility cost at all its campuses. The system is comprised of 5,952 solar panels installed atop of seven large-scale carports providing shade over 530 parking spaces. This project, which began in October of 2007 and was completed in April 2008, provides space for 530 vehicles and occupies three (3) acres of land-area. It is estimated that the system would have an expected life of at least 40 years and would supply about 16% of the campus electricity needs. This solar farm produces energy without the use of fossil fuels and does not produce noise, pollution or doesn't have any moving parts, making this one of the cleanest and safest ways to generate electricity in an urban environment.

The East Los Angeles College solar farm works in conjunction with the new Central Utility Plant, which, until the institution ultimately achieves energy independence, saves energy by drawing power from the grid at night when demand is lower and the prices are cheaper.<sup>11</sup> "We are excited about ELAC's solar project as it gives us an opportunity to focus on the District's commitment to building green, and to preparing our students for the coming green economy," said Dr. Marshall Drummond, chancellor, Los Angeles Community College District. "This project is a major step forward in our plan to self-generate power at each of our campuses."<sup>12</sup>

The project is a "Design-Built" contract by Chevron Energy Solutions under a 20-year Power Solar Service Agreement with the LACCD. This project is funded by the LACCD's Propositions A/AA Bond Program, which Los Angeles voters approved in 2001 and 2003.<sup>13</sup> East Los Angeles College hopes to tie the solar farm into other capital improvement projects on campus to maximize possible credits that can be obtained under the LEED® rating system for the new construction as well as building retrofit projects.

#### Project Process

East Los Angeles College (ELAC), the first LACCD campus to install a \$9 million 1.2 megawatt project which will provide almost half of the college's daytime power needs, is part of the Los Angeles Community College District's (LACCD) Renewable Energy Plan and is a major component in the sustained effort to take all nine of its colleges "off the grid."<sup>14</sup> ELAC selected Chevron Energy Solutions (CES), a unit of Chevron Corporation, to partner in this effort. Chevron designed and installed the system at its campus in Monterey Park, California. As stated in the revised proposal dated 15 January 2007, a Notice to Proceed was issued to Chevron Energy Solutions for the design and construction of the solar panel system in July 2006. In addition, CES assisted the college in arranging

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<sup>11</sup> Los Angeles Community College District. "East Los Angeles College Solar Farm project profile." Retrieved August 24, 2009.

<sup>12</sup> Los Angeles Community College District. (April 22, 2008) "Press Release". Retrieved September 2, 2009.

<sup>13</sup> Los Angeles Community College District. (August 29, 2007) "East Los Angeles College First To Generate Its Own Electricity Through New \$9 Million Solar Energy Project". Retrieved August 24, 2009.

<sup>14</sup> Los Angeles Community College District. (April 22, 2008) "Press Release". Retrieved September 2, 2009.

project financing with MMA Renewable Ventures, a third-party partner, and selected the sub-contractors that performed the installation and construction. The document outlines the cost and expenses associated with the construction as well as an analysis of the costs associated with the operations and return on investment.

MMA Renewable Ventures owns and sells power from the solar facility to the college within a 20-year Power Purchase Agreement, at a cost significantly less than what the institution otherwise might end up paying to the local utility. By entering into a Solar Services and Site Lease Agreement with the Chevron Energy Solutions, East Los Angeles College acts as a landlord to the company by leasing a portion of the property where the solar energy system is constructed. The company will provide maintenance for the solar system throughout the first few years, during which it owns the system. After seven years, the Los Angeles Community College District has the option to purchase the facility from MMA Renewable Ventures. A new contract may be considered in which the institution might retain Chevron to maintain the system or the responsibility entirely gets transferred to the institution and the LACCD. The Memorandum of Lease dated 11 March 2008 could be found here. This will offer more detailed insight into the arrangements made between the East Los Angeles College and its partners in this venture.

## Project Finance

### *Cost Outline*

**Cost per sq.ft.:** \$97.20

**Total project cost:** \$10,000,000

**Building construction cost:** \$2,000,000

**Site development cost:** \$1,500,000

**Furniture & equipment cost:** \$1,000,000

**Fees and other:** \$1,000,000<sup>15</sup>

The clean, renewable energy produced by the East Los Angeles College's solar farm generates 1.9 million kilowatt-hours of electricity per year, saving the College an estimated \$270,000 annually. The project is the largest solar facility within the district and marks a major milestone in the LACCD's ambitious plan to declare its energy independence. When completed, the District's project will comprise one of the largest urban solar generation facilities in the United States.<sup>16</sup>

A Request for Proposal (RFP) was drafted by the ELAC "Energy Team" and submitted to various contractors. After reviewing the responses, the institution contracted with Chevron Energy Solutions, which designed and oversaw the construction, and selected the sub-contractors that performed the on-site work. Chevron will own and operate the system for at least 6 years. There is a maintenance contract with Chevron that guarantees certain amount of minimum production. Solar energy goes into inverters first and then goes into a high voltage distribution system of the campus. Energy is consumed throughout the campus during peak hours following the demand pattern.

The project was financed upfront with an investment of \$2.8 million distributed over the first five years of the project. Investment tax credit accounted for 30% of cost. After the 6 years the campus will use the bond to purchase the agreements. MMA Renewable Ventures is the partner that finances, owns and operates this facility. MMA delivers power to LACCD under a Power Purchase Agreement (PPA) at

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<sup>15</sup> Education Design Showcase. "East Los Angeles College - 1 Megawatt Photovoltaic Power Facility." Retrived October 27, 2009.

<sup>16</sup> The Master Planner - LACCD. "A Year in Review." Retrieved October 19, 2009.

prices below the LACCD's previous utility rates and is able to maximize the financial benefits associated with solar facilities, including federal tax incentives that are usually unavailable to tax-exempt institutions like the East Los Angeles College. MMA Renewable Energy Ventures covered \$2.8 million of the total of \$9 million project cost with financial incentives from Southern California Edison's "Self Generation Incentive Program." This Program offers customers installing up to 1 MW of solar panels a financial incentive, which can be used to offset the cost of the system.<sup>17</sup> The Power Purchase Agreement with MMA Renewable Ventures (PPA) and an Energy Conservation Agreement may be bought by LACCD using a bond issue that will save \$9 million/year as mentioned in the California Colleges Grid Neutral document.

The institution's PV Farm will also act as a living model for students, allowing them to study the panels and electrical equipment to learn more about their design, construction, chemistry and physics. This will prepare them for the "green collar" jobs of the 21st Century Los Angeles economy.<sup>18</sup>

## Project Features

**Facility Use:** College/University 2-Year Institution

**Project Type:** New Construction

**Category:** Green Design

**Location:** Monterey Park, CA

**District/Inst.:** Los Angeles Community College District, Ernest Moreno - President

**Completion Date:** May 2008

**Gross Area:** 102, 878 sq. ft.

**Site Size:** 2 acres<sup>19</sup>

A 1.2 MW AC photovoltaic carport farm was constructed on the Northwest Parking Lot at the East Los Angeles Community College (ELAC) campus to provide green and renewable energy to meet part of the campus' power needs. The carport farm consists of seven steel carport structures, running east to west, supporting 5,952 photovoltaic panels, which were installed with a 2-degree tilt to the south, to maximize solar irradiation. Each carport structure is of a "T" shape design, with supporting columns running in the mid-span of the carport canopy, which shades a double-parking row.<sup>20</sup>

The photovoltaic panels were manufactured by Kyocera. Each panel can produce about 200W DC at peak solar irradiance. The panels are circuited in series into "strings," which are terminated in a combiner box at each carport structure. From the combiner boxes, electrical power is transmitted through underground conduits to two inverters manufactured by Satcon, which convert the DC power to AC. The AC power is then stepped up to 4160V and fed into the existing College electrical grid.<sup>21</sup>

The photovoltaic carport farm is estimated to produce about 1.5-1.9 Million kWh per year, enabling the College to obtain about 40-45% of its electrical energy from a green, sustainable, and emission free energy source. In addition, the carport structures add shading to about 530 parking spaces, and provide improved parking lot lighting from the new, energy efficient fixtures mounted at the underside of the canopy.<sup>22</sup>

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<sup>17</sup> Second Nature. "Draft of the Renewable Energy Document." Retrieved August 29, 2009.

<sup>18</sup> Los Angeles Community College District. "East Los Angeles College Solar Farm project profile." and "East Los Angeles College First To Generate Its Own Electricity Through New \$9 Million Solar Energy Project." Retrieved August 24, 2009.

<sup>19</sup>, <sup>20</sup>, <sup>21</sup>, and <sup>22</sup> Education Design Showcase. "East Los Angeles College - 1 Megawatt Photovoltaic Power Facility." Retrieved October 22, 2009.

## Lessons Learned

### *Educational*

- This \$9 million renewable energy project at the East Los Angeles College in LACCD is programmed to harvest nearly enough energy to meet the college's daytime electricity needs. The ambitious solar energy project at East Los Angeles College is the first milestone for the Los Angeles Community College District as it moves toward taking all nine of its colleges off the grid.
- The LACCD is the first community college system in the nation with plans to become entirely energy independent. "This renewable energy project is another example that illustrates our district's strong commitment to move expeditiously toward building climate neutral campuses that will positively impact the environment," said Dr. Marshall E. Drummond, chancellor of the LACCD. "Not only will our energy independent campuses save money for other educational resources, but they will also act as a living model to teach students how to lead sustainable, environmentally responsible lives."<sup>23</sup>

### *Financial*

- The college and the district saw the implementation of an energy producing system as an effective way to reduce consumption and cost. This project also paved way for further planning in terms of energy generation and eventual energy independence for the Los Angeles Community College District in the future.
- The project was funded through the Power Purchase Agreements, tax rebates and incentives. This also proved that there are financial mechanisms available to assist higher education institutions in their efforts to pursue climate neutrality, energy independence and holistic institutional sustainability.

### *Social*

- In 2008, ELAC celebrated Earth Day in style as hundreds of students, faculty, and community members were on hand at East Los Angeles College (ELAC) to join officials as they "powered up" the campus' new solar project. Attendees showed their support by donning organic green T-shirts and sunglasses at the official "Flip the Switch" ceremony. Other festivities included showcasing an eco-house designed by ELAC students and awareness materials promoting sun power and environmental stewardship to East Los Angeles' underserved community.<sup>24</sup>
- At the "Flip the Switch" ceremony, many in attendance praised ELAC's work. "ELAC's solar farm is a tremendous reminder that the Board's decision to move forward with our Energy plan was a great decision," said Sylvia Scott-Hayes, president, Board of Trustees, Los Angeles Community College District. "With ELAC's solar project and other projects across the District, we are building a new generation of highly-skilled, trained workers and are having a dramatic impact on the lives of so many young people who count on the resources provided by LACCD." Jim Davis, president of Chevron Energy Solutions stated that the project "is a great example of how sustainable energy development can yield benefits for the environment and education." According to Matt Cheney,

CEO of MMA Renewable Ventures, "ELAC is helping lead a nationwide movement to bring new levels of environmental sustainability to our college campuses. From the advanced solar technology to the innovative finance approach used to employ it, this system embodies the forward-looking spirit and youthful energy of the ELAC community."<sup>25</sup>

- Through the solar project and numerous other curriculum initiatives, the LACCD is training Los Angeles' students to fill the "Green Collar" jobs in the 21st century economy. This demonstrates how such an initiative could impact the community at large and prepare the new generation of leaders for the challenging times.<sup>26</sup>

### *Technical*

- For this solar energy project, the general and installation contractors were selected through a competitive selection process. Chevron responded to the RFP. Following a thorough review process, Chevron was selected as a partner for this project. Eventually, the sub-consultants were also selected by Chevron. This certainly reflects the importance of collaborating with industrial experts and companies that could help the institution further its sustainability mission. The ELAC solar project, a partnership with Chevron Energy Solutions (CES), MMA Renewable Ventures and Southern California Edison, is a successful example and an irrefutable proof of how public and private agencies can work together to meet sustainability goals of the institution and the community.

## **GREEN BUILDING RESOURCES**

### **Recommendations**

Mr. Andrew Hoffman, one of the team-engineers, indicated that basic education about the renewable energy technology and the system provides crucial assistance in building momentum and in obtaining support and understanding from the staff, faculty and students. Such a renewable energy project also invokes interest in the neighborhood communities and other local colleges and universities.

Education also plays a key role in making the community realize that building green is not more expensive than the conventional construction, but in fact, it has long-term benefits for the campus community, society and the environment. The seemingly added upfront cost gets converted into savings because of the higher efficiency and durability of the newer and more competent systems. Educating the population about the involved processes of financing, design and implementation in the context of a project, and helping them see the payback are also equally important aspects to be considered while planning for a project of this scale.

Also, this project elucidates that the leadership of the board of trustees as well as the senior administration is pivotal in the realization and success of any initiative on the campus. Their vision and perseverance propagate a chain of positive efforts moving the entire society into the energy-independent future.

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<sup>25</sup> Presidents Corner. "ELAC First to Generate its Own Electricity Through New \$9 Million Solar Energy Project." Retrieved October 22, 2009.

<sup>26</sup> and <sup>27</sup> Los Angeles Community College District. (April 22, 2008) "Reuters Press Release". Retrieved September 2, 2009.

## Sources of Information

Links to school's main site, contact, sustainable department/facilities.

[East L.A. College](#)

[LACCD Builds Green](#)

[LACCD Go Green](#)

Green Technology. "[Tapping Sunshine](#)". Slideshow of Solar Projects by California Community Colleges