



U.S. Air Force Academy **POWERS UP**

By Sarah Klobnak, Senior Marketing Specialist



OUR VISION STATEMENT

WE STRIVE TO BE THE BEST PROVIDER OF
HIGH-QUALITY ELECTRICAL INSTALLATIONS
AND TO ALWAYS PROVIDE A SUPERIOR
PRODUCT AT A REASONABLE COST

The source for design-build, renewable projects, E Light Wind and Solar, Inc. is proud to announce the completion of the 6 megawatt (MW) solar photovoltaic (PV) system at the U.S. Air Force Academy (USAFA) in Colorado Springs, Colorado.

E Light was subcontracted by SunPower Corporation to perform all civil, engineering and installation of the system. Ground breaking of the 30-acre site commenced in November 2010 and the system will be commissioned later this summer.

The system uses high-efficiency SunPower T0 solar panels with the SunPower Tracker® system. The Tracker follows the sun's movement during the day, increasing sunlight capture by up to 25 percent over conventional fixed-tilt systems, while significantly reducing land use requirements. This system is designed to meet USAFA's stringent engineering design standards.

SunPower Corporation will own and operate the power plant. This project was funded by the Air Force with the American

Recovery and Reinvestment Act of 2009 (ARRA). The project was planned in cooperation with Colorado Springs Utilities, which is publicly owned.

PREFAB EXPERTISE

Efficient installation is key to a successful jobsite. This project involved extensive use of ELight's own Prefabrication Department, based in Englewood, Colorado. 18,888 solar panels were set to exact specifications for spacing, depth and squared to the racking assembly using prefabricated tools. Additionally, over 9,400 total linear feet of



LEFT: Tilt motor and array. **MIDDLE:** Solar arrays hard at work to produce 6 MW of solar power. **RIGHT:** E Light Wind and Solar employees completing wire protection at the combiner boxes.

medium and DC voltage cabling was installed underground with precise spacing in the trench.

LEAN CONSTRUCTION

This project demonstrated many principles of Lean Construction, which emphasizes coordination between design and construction. E Light Project Superintendent, [REDACTED] was involved in the electrical design process from the beginning. "This design-build project allowed us to provide

input to SunPower's designers on how the system would be built. This allowed the design to be modified before the final drawings were issued," said Adams in a statement.

According to U.S. Environmental Protection Agency estimates, the system at the Air Force Academy will avoid more than 9,400 tons of carbon dioxide emissions each year, the equivalent of removing 40,900 cars from Colorado's

highways over 25 years.

HIGHLIGHTS

- E Light served as the General Contractor to oversee concrete, civil work, pier driving, data and electrical installation.
- Improved methods and installation time for panel install.
- Set (6) six, 40,000 lb. inverter containers.



PROJECT TEAM

[REDACTED], Project Manager; [REDACTED], Project Superintendent; [REDACTED], Preconstruction



SAVE THE DATE:

[REDACTED]

TIME:

[REDACTED]
Registration & Raffle Entry
12:00 p.m. - 2:30 p.m. ONLY

WHERE:

[REDACTED]
[REDACTED]

RSVP:

[REDACTED]

RSVP BY

[REDACTED]



April 22

Earth Day

[Redacted]

[Redacted]
[Redacted]

May 30

Memorial Day
(Offices Closed)

[Redacted]

[Redacted]
[Redacted]

EMPLOYEE Spotlight By Roseanne Mullis, Director of Human Resources



[Redacted]
Englewood Office

Dave moved to Greeley to study Design and Technology at The University of Northern Colorado where he learned how to operate Auto CAD. For those who know anything about Auto CAD, the first platform Dave started using was version R-14 and has since obtained three Auto CAD certificates. For those of you who do not know anything about Auto CAD, Dave says, "that's okay, you're cool too!"

In 2001, Dave decided an electrical career was his focus, so he started as an apprentice in the E Light Prefabrication Shop.

From 2004-2008, he worked as a CADD Operations Manager where he managed all CAD work, document control, 3D coordination, and BIM (building information modeling) tasks. Dave also worked as a Director of Virtual Construction and CADD Operations Manager where he managed all the CAD work, BIM tasks, total station, and design logistics for all projects.

He also obtained his Bachelor of Science degree in Business Management (BSBM) from The University of Phoenix.

After that, he decided he no

longer enjoyed an office right next to the men's rest room, so he sought out a change in life. As of March 14, 2011, Dave has returned to E Light Electric Services to manage the pre-fab shop... and to find his office neighboring the men's rest room once again!

Dave loves to keep very busy, loves challenges, and enjoys managing logistics. He loves mountain biking, camping, and skiing and also runs sound engineering for bands and sound system installations during the evenings and weekends, when time permits.

His future endeavors include:

- Restoring an old car, even though he does not know the first thing about automotive, (except what happens when you drive an SUV into a river).
- Getting married.
- Settling down with a family in the Franktown/ Castle Rock area... but not necessarily in that particular order.

He is excited to be a part of the E Light team again and is ready to continue developing the E Light prefab shop!

EMPLOYEE of the Quarter By Roseanne Mullis, Director of Human Resources

NOMINEES

[Redacted]
[Redacted]



NOMINATED BY

[Redacted]
[Redacted]

After he finished the TEMF project at Fort Carson, he immediately began leading the 6 Megawatt Solar Project at the Air Force Academy. This project was Matt's first opportunity to work on an E Light solar project.

Matt was quick to utilize all available resources to get up-to-speed on the processes involved in running this type of work. Through dedication, hard work, intense study of drawings and countless hours of pre-planning, Matt was able to get everything

together- better than planned!

When Matt was asked to find more efficient ways to move material and improve production, he quickly sought out feedback from the team members working in the field

who would directly benefit from such improvements.

Because of Matt's hard work and good decisions on the Air Force project, E Light once again has proven to be the BEST in the industry.

LOCAL Earth Day Event By Jason Wheeler, C/S Area Manager



██████████ and ██████████ teaching 5th graders about renewable energy.



E Light employees participated in an Earth Day event on Friday, April 22nd at a local elementary school, Antelope Trails in Colorado Springs, Colorado, many of the students' parents work at the USAFA.

"E Light was proud to support the local community in this fun activity to teach students about renewable energy," said E Light Colorado Springs Area Manager, ██████████

At the event, over 100 fifth graders were taught about renewable energy. Each student had a choice of presentations including: The U.S. Forest Service talking about wild fires and water conversation and Cheyenne Mountain Zoo talking about endangered species.

E Light employee, ██████████ gave a presentation

that included: who invented the first solar panel; the first applications of solar power; and how solar power works.

Philip also had one volunteer from each group come to the front of the class and build a miniature windmill for a hands-on experience.

While Philip interacted with the kids with interesting solar facts, ██████████ helped by running the slideshow presentation and displaying the monitoring website for the Denver Federal Center solar photovoltaic system (██████████)

██████████

"This was a fun experience for E Light Wind and Solar, and we look forward to doing more of this in our community in the future," said ██████████.

According to U.S. Environmental Protection Agency estimates, the 6 MW solar PV system at the Air Force Academy will avoid more than 9,400 tons of carbon dioxide emissions each year, the equivalent of removing 40,900 cars from Colorado's highways over 25 years!



E Light's presentation to students included a slideshow on how solar power works. Watch it online on our EWS Facebook page!

Project UPDATE

By Kevin Kosters, Vice President Operations & Sarah Klobnak, Senior Marketing Specialist

The U.S. General Services Administration's (GSA) Denver Federal Center (DFC) campus is nearing the completion of its 6.7 megawatt (MW) solar photovoltaic (PV) work. The 28,964 solar panels will provide more than 15% of the DFC's electrical needs and the combined capacity of all the solar arrays is enough to power around 1,056 residential homes.

This work includes Field 1, ground-mount solar arrays visible near the main entrance on Kipling Avenue; Field 2, ground-mount solar arrays located near 6th Avenue; and finally, fourteen carport structures with solar panels on top at Buildings 20, 25, 53, 810 on the DFC campus.

Field 2 is 80% complete and our employees are tracking right on the heels of the pile driving machine on Field 1. Thanks to [REDACTED] and the E Light team for all their hard work in making this another successful solar project!

"This 6.7 MW installation included roof-mount (flat and barrel-vaulted roofs), ground-mount and carport structures with panels on top. I applaud our workforce for a successful installation with these multiple applications," said **Perry Herrmann**, President/CEO of E Light Wind and Solar, Inc. "Being able to provide the Denver Federal Center with more renewable power has surpassed our expectations with this installation and is a testament to the skill and professionalism of our electricians."

The project is in its final phase and is expected to be online by the end of the year.



**DENVER FEDERAL CENTER
PHASE II SOLAR**
Lakewood, CO

Project Manager **Craig Sherburn**
Preconstruction **Aaron McDonald**
Superintendent **Troy Swain**
Customer **General Services Administration**



Closing Projects

By Kevin Kosters, Vice President Operations & Sarah Klobnak, Senior Marketing Specialist



EARLY CHILDHOOD LEARNING CENTER
Aurora, CO

Project Manager **[REDACTED]**
Preconstruction **[REDACTED]**
Foreman **[REDACTED]**
General Contractor **Pinkard Construction**

Thanks to **[REDACTED]** and **[REDACTED]** on the successful completion of the Early Childhood Learning Center.

ranging in ages from newborn to age 3. The facility has (6) pre-school classrooms; (4) transitional classrooms; (4) toddler classrooms; and (5) infant classrooms.

This was a challenging job due to all the open and exposed ceilings and was also constructed without any full height walls. This involved a lot of pre-planning to route the conduits in the slab for all home-run pipes to electrical room. The short, non- full height wall branch circuits had to extend horizontally to reach their end location.

A unique architectural feature included small, 4'-0" doors for the children, which were installed directly next to standard doors into every classroom.



Some of the design features included cable suspended, indirect lighting. The lighting system is also remote controlled, which incorporates dual-level switching within the classrooms. Tamper resistant power outlets were also installed for the safety of the children.

The facility can house approximately 240 children



(ABOVE RIGHT) In every classroom, smaller doors were installed next to standard doors for the children.



CREEKSIDE RESIDENCES WEST
Lakewood, CO

Project Manager ██████████
Preconstruction ██████████
Superintendent ██████████
General Contractor **Calcon Constructors**

A new, green senior living community is complete and ready for tenants. E Light Electric completed the Creekside Residences West located near Pierce Street and Colfax in Lakewood.

with an emphasis on energy efficiency and sustainability, including passive solar, solar photovoltaic (PV) and solar thermal.

Energy savings were continued with extensive use of occupant controls for tenants and lighting controls for task lighting. This also included LED lighting in all public areas. This building is proposed to use about 50% less energy than a similar building. The project is pursuing LEED Platinum Certification.

This 4-story independent senior living community consists of 83 low to moderate-income, 1 and 2 bedroom apartments ranging in size from 650 - 820 square feet. The project totals 104,000 square feet and includes a 64-stall underground parking garage and 3,600 square feet of first floor community space.

On a side note, ██████████, Project Manager for E Light recently had his own father move into the new residences and he loves the green building!

AMENITIES
The project includes many new amenities such as a Nintendo® Wii™ room, poolroom, and a dividable multi-purpose community room that opens directly onto a xeriscaped green roof. Because of seniors' special needs, adjusted electrical outlet and switch locations heights were incorporated. This included placing outlets 24" above floor, instead of the typical 18".

GREEN IDEAS
This 12-month project was built



New Projects

By David Wright, Vice President Preconstruction & Jason Wheeler, Colorado Springs Area Manager



COGENTRIX
30 MW SOLAR
Alamosa, CO

Project Manager [Redacted]
Preconstruction [Redacted]
Superintendent [Redacted]
General Contractor **Mortenson**

This 30 megawatt (MW) project will be the largest Concentrated Photovoltaic (CPV) Facility in the world!

Amonix is the leading designer and manufacturer of concentrated technology that provides the highest efficiencies in solar power production and this facility will set the standard for future CPV projects.

The unique MegaModule design minimizes installation time and complexity. One MegaModule contains 36 sets of lenses and receiver plates with multi-junction solar cells, producing approximately 10 kW of power (DC).

These lenses are affixed to the top of a 10'x 49' rectangular steel frame with 30 corresponding

multi-junction solar cells mounted onto each receiver plate.

This 30 MW project consists of 492 MegaModules that produce 61 kW each.

E Light Wind and Solar is constructing the electrical portion of the work. Our scope includes a ground grid underneath the structures and complete AC and DC infrastructure. This project is scheduled through December of this year.

In October 2010, E Light also completed an Amonix test site in Aurora, Colorado for 13 CPV collectors with Mortenson Construction.

(ABOVE) A concentrated photovoltaic installation.



FORT CARSON SOLAR
300 kW SOLAR
Fort Carson, CO

Project Manager [Redacted]
Preconstruction [Redacted]
Superintendent [Redacted]
General Contractor **Weitz/Watts, JV**

This 300 kW, design-build solar project is currently being constructed at the Fort Carson Army Base.

The array is located on several carport structures in the parking lot of a new Military Intelligence Battalion Headquarters building.

E Light's scope of work includes procurement of the solar equipment, interconnection to the facilities distribution system and electrical wiring of the array. Our special projects group in the Service Department is managing this project and insuring that our outstanding presence and rapport on base is kept strong.



(ABOVE) This E Light project was the 20 MW Greater Sandhill solar photovoltaic farm that was completed in 2010.

SAN LUIS 30 MW SOLAR FARM
Mosca, CO

Construction Executive [REDACTED]
Preconstruction **Precon. Dept.**
Construction Manager [REDACTED]
Superintendent [REDACTED]
Customer **SunPower**

This is a new 30 megawatt (MW) solar farm located in Mosca, Colorado which is approximately 16 miles north of Alamosa.

SunPower has asked ELight to be the overall General Contractor and assist in the building of this solar farm for Iberdrola, which

is the 2nd largest wind farm developer in the world.

Because E Light Wind and Solar was awarded the project as the General Contractor, we will be carrying all scopes of work on the project including concrete, civil work, pier installation, metal erection, inverter buildings

and all electrical including the medium voltage. We will also be responsible for having an on-site structure to support all phases of the work that will be performed to complete the project.

- [REDACTED] will be the Construction Executive
- [REDACTED] will be the On-Site Construction Manager
- [REDACTED] will be the Superintendent and his group will include:

- [REDACTED] as the Electrical Foreman
- [REDACTED] as the Metal Erection Foreman
- [REDACTED] as Quality Control Engineer
- [REDACTED] as Logistics
- [REDACTED] as the full-time Site Safety Supervisor.

As E Light continues to grow in the renewable energy world it will be important to be able to be more than just another great electrical contractor.

NORTH SUBURBAN MEDICAL CENTER, EMERGENCY DEPARTMENT
Thornton, CO

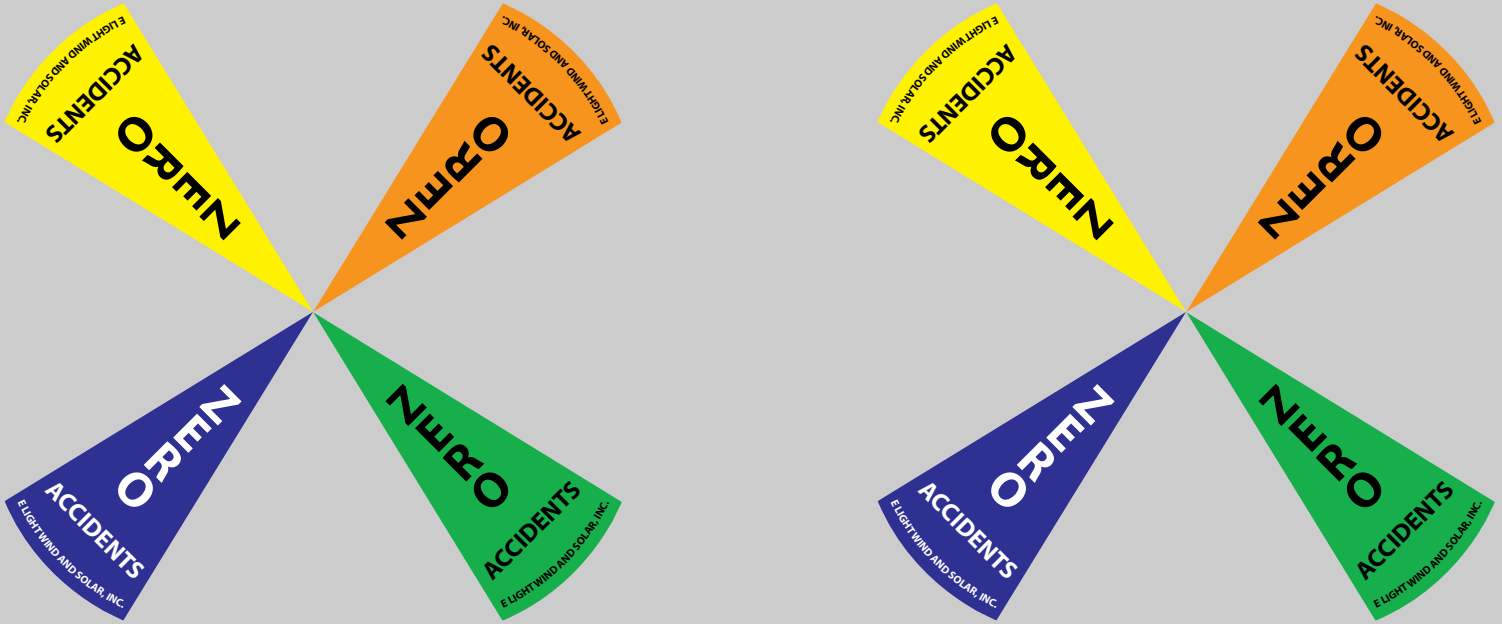
Project Manager [REDACTED]
Preconstruction [REDACTED]
Superintendent [REDACTED]
General Contractor **R.J. Griffin & Company**

CAESAR CHAVEZ PARKING GARAGE 115.5 kW SOLAR
Denver, CO

Project Manager [REDACTED]
Preconstruction [REDACTED]
Superintendent [REDACTED]
General Contractor **GE Johnson Construction**

Training & Safety DEPARTMENT

By Ted Smith, Director of Education & Loss Prevention



TRAINING

We are in the process of revamping our summer training schedule so we can allow all of our employees better opportunities to improve their knowledge and advance their careers.

Check the schedules at www.elihoodtraining.com and click on schedules.

NEW EMPLOYEE

We also want to welcome **[REDACTED]** to our Safety Team. Bryan is the Safety Supervisor for the Alamosa photovoltaic projects and has a great deal of experience and knowledge the safety industry. He is also a heavy equipment operator and a great resource for all of your trenching questions. Welcome aboard Bryan!

With Bryan's assistance, we

have written and put into place new safety policies for our solar installations and procedures for when E Light is the prime contractor.

One of our clients, Iberdrola, recently inspected a solar farm project and they were very impressed with our safety culture and practices. Good job everyone on the San Luis Solar Ranch project.

NEW LICENSED JOURNEYMEN

- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**

E Light Electric Class of 2011

Graduation

1ST YEAR STUDENTS

- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**

2ND YEAR STUDENTS

- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**

3RD YEAR STUDENTS

- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**

CLASS OF 2011 GRADUATES

- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**
- [REDACTED]**



SERVICE Department

By Sarah Klobnak, Senior Marketing Specialist



The Aurora Dairy project involves extensive control work.

AURORA DAIRY
Platteville, CO

Project Manager [REDACTED]

Preconstruction [REDACTED]

Superintendent [REDACTED]

General Contractor **Big-D Construction**

A second production line is being added to the Aurora Dairy for increased capacity.

Located in Platteville, Colorado, this dairy runs 24/7/365 days a year to produce organic 1% and skim milk. The milk has to be processed within 72 hours of collection from the cows, or it is thrown out. Total square footage of the facility is 47,000.

The project scope includes electrical for: new boilers, a new air compressor and air dryer. E Light will also be upgrading the building automation system.

This project includes extensive control work with the addition

of (2) two new motor control centers. Control wiring will be installed for all Tetra Pak® equipment. This piece of equipment homogenizes the milk.

Work also includes expansion of the water treatment plant with a new transformer and 800 amp disconnect.

SAFETY

Safety within this clean environment includes: hair nets for head and facial hair, no jewelry, and no nail polish. [REDACTED] is the Superintendent, so imagine him with a mustache net!

The dairy is cooled with

ammonia, not traditional freon. Even though ammonia is more efficient, it is a safety precaution because it is so dangerous. Our electricians work in the milk storage refrigerators, which maintain a frigid 34 degrees.



Phase I will be complete by July/August. There is a potential for expansion up to 100,000 square foot for this dairy.





GREEN Thinking By Sarah Klobnak, Senior Marketing Specialist

We have made Facebook pages for both E Light Electric and E Light Wind and Solar.

Our Facebook webpage will include posts about: E Light and industry-related news, learn more about the progress of the Clyfford Still Museum or watch a video of Troy Swain at the Denver Federal Center and much more!

If you have a Facebook account, please "like" both E Light pages, so that we can secure our spot for our company.

Instructions:

1) Login to your Facebook account and search for:

- E Light Electric Services, Inc.
- E Light Wind and Solar, Inc.

2) Select the "Like" button

Thank you for participating!

A unique piece of equipment turned up at our Prefabrication Department recently. Used to safely and environmentally dispose of mercury from lamps, the Bulb Eater™, made by Air Cycle Corporation, can 'eat' over 1,350- T8, 4 foot lamps in a single 55-gallon drum container!

This piece of equipment is being used for our Service Department with a lighting retrofit at Channel 4 News in downtown Denver, Colorado.

The photo pictured to the right represents about 1,000 4'-0" lamps on the pallet behind E Light Intern, ██████████

Additionally, the Service Department plans to utilize the Bulb Eater on site for other lighting retrofit projects.



361 Inverness Drive South, Suite B Englewood, CO 80112
308 West Fillmore, Suite 201 Colorado Springs, CO 80907
www.elightelectric.com www.ewindsolar.com



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