

## PALO ALTO HONORED FOR SUCCESSFULLY STREAMLINING SOLAR PERMITTING PROCESS

**A**t the 2014 Solar Power Generation USA Congress Redirecting to a non-government site in San Diego, the national Award for Best Collaboration went to the city of Palo Alto, Calif. Redirecting to a non-government site, for streamlining its residential and commercial solar array approval process.

Palo Alto earned the award by bringing together stakeholders from the public, private and government sectors to make it faster and easier to install a photovoltaic (PV) system in the city. The collaborative project reduced the average 122-day wait for a solar permit in Palo Alto to five days, and in most cases the permit can be issued over the counter. The time it takes until final inspection is down to 140 days from the 209 days, with inspection requests being accommodated on the same or next day. As a result of these improvements, the number of solar applications received in city the same three-month period increased by 67 percent.

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### THE BEST INTENTIONS

Standards for solar panel installation vary from state to state, even city to city; and contractor certification requirements are equally inconsistent. A strong approval and inspection process for installations ensures public safety, code compliance and quality work. "There will always be a few bad actors who will take advantage of cities and utilities that are under pressure to meet renewable energy mandates," observed Peter Pirnejad, Development Services director for the City of Palo Alto. "Ultimately, that hurts consumers, renewable programs and the industry itself."

But a too-rigorous process can hinder deployment, too, added Pirnejad, making an agency seem excessively bureaucratic and obstructive. In an effort to protect citizens, Palo Alto requirements had mushroomed to include full copies of installation guidelines on all the components of the array. "It is a balancing act, and we had gone too far in the direction of caution," he acknowledged.

The first step in restoring balance was getting input from the local solar industry. Pirnejad, who joined the city in 2012, brought together a large group of installers to discuss the process. "We received a lot of feedback about our requirements and responsiveness," he recalled. "It was clear that the problem was systemic."

### GET IT DONE

Overhauling the process was the goal, and the city wasted no time moving forward. "You can't say you want to streamline a system, and then



take a long time to do it," Pirnejad pointed out.

The Development Services Department assembled a task force of solar contractors, residents, utility representatives and city officials. In three meetings over four months, the group identified ways to create a more transparent and efficient permitting process.

The first round of fixes included setting a flat fee for residential installations, eliminating the requirement to engineer residential PV systems and reducing the number of required inspections. The city standardized a PV permit checklist, modeled on The Solar America Board Codes and Standards (Solar ABCs) Expedited Permit Process Redirecting to a non-government site and created a website where applicants can find all the requirements and city contacts.

### NOT THERE YET

The initial changes made a big difference in the first six months following implementation. The average number of days the city took to issue a permit dropped 37 percent. Streamlining reduced the number of days to finalize a permit by 15 percent, and cut in half the time it took to complete a review.

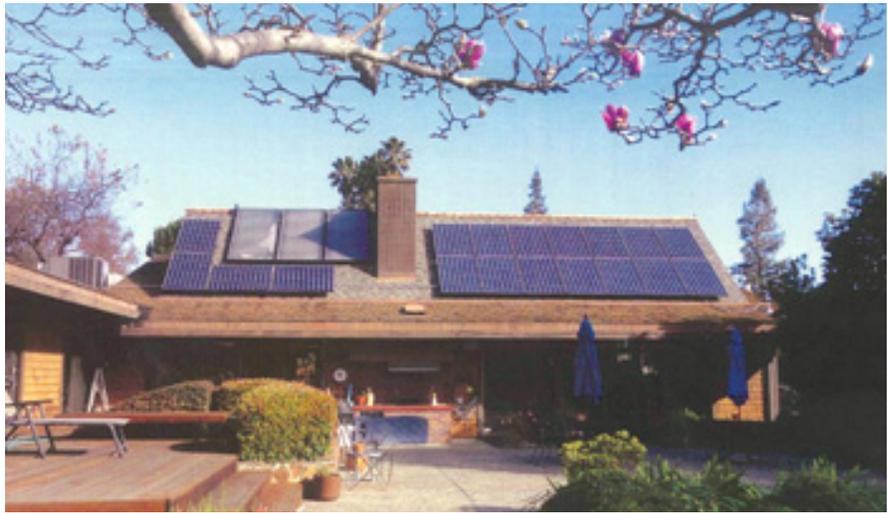
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## Palo Alto from page 1

The city presented those results to the community for a six-month review, and the community's gentle, but firm response was better, but not good enough. "The issues were more about efficiency than speed," Pirnejad said.

In trying to turn around permit requests in three days, the city was stretching its system to the breaking point. The time it took the city to return plan check comments was viewed as less of a problem than how long it to issue the permit to build. People were having trouble meeting the requirements for over-the-counter permitting. Design plan checks had become faster but the number of rechecks and plan resubmittals had climbed. Similarly, contractors were less concerned about how long it took the city to respond to the field inspection request and more concerned about how often inspections were being failed.

The task force reached out to PV designers and installers again for help in refining the process. Pirnejad credits that input with helping the city find a balance between speed and thorough-



This is the 500th PV system installed in Palo Alto's territory, replacing the first system installed in 1983! The city's streamlined permitting process is helping to increase applications to install solar panels on homes and businesses. (Photo by City of Palo Alto)

ness. "If I had one word of advice for cities trying to simplify and expedite their PV review and inspection experience, it would be 'collaboration,'" he said. "To get a process that works for both the city and the designers, both parties have to come together."

### BETTER THAN AWARDS

Palo Alto seems to have reached the goal of a process that works for the most people. In last quarter of 2013, the city received more solar permit applications than during the entire year of 2012. In December of 2013 alone, 38 applications moved through the process, compared to 40 in all of 2011.

Streamlining the permitting process will help the already carbon-neutral city increase the amount of clean electricity generated locally. The process for permitting electric vehicle charging stations was also covered in the overhaul, so it is likely to help reduce greenhouse gas emissions from transportation, too.

Shortly after the improved process went into effect, the Vote Solar Initiative contacted Palo Alto. The nonprofit renewable energy advocate had heard about the collaborative project and wanted to feature it in a webinar about how cities should work. Project Permit, a Vote Solar program that scores municipal solar permitting practices nationwide, has given the Palo Alto

permitting process a gold star.

The PV industry has shown its appreciation too, with SolarCity Redirecting to a non-government site and Cobalt Power Systems Redirecting to a non-government site, two of the city's largest PV installers, publicly praising the dramatic changes. "The City of Palo Alto deserves a tremendous amount of credit for listening to the needs of solar customers and making direct changes based on those needs," said Jefferson Silver, senior commercial project manager for SolarCity.

"This type of collaboration between city staff and developers facilitates a deeper level of interaction within our community," said Palo Alto City Manager James Keene in an interview.

### KEEP ON KEEPING ON

Pirnejad and the Development Services team have not allowed success to go to their heads. "Municipalities need to continuously monitor their requirements to make sure they remain efficient and reflect current best practices," he explained.

The ties the city built with the community during the streamlining project will help to keep the process from backsliding, Pirnejad believes. "Getting all the stakeholders involved and really listening to them is what gets results," he declared. "The human touch makes all the difference." ⚡

## ENERGY SERVICES BULLETIN

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Editor: Kevon Storie  
Designer: Grant Kuhn



# 'PASSPORT TO POWER' TAKES CUSTOMERS ON TRIP THROUGH ELECTRICITY DELIVERY

(All photos by Loveland Water and Power)

Utilities rarely hear from their customers unless there is a power outage or a rate increase; and very often, the only contact customers have with their power providers is that monthly bill. No wonder relations between the two can be chilly. What wonders could occur if the two sides got together to talk about something other than money or an emergency? That was the idea behind Passport to Power, an open house presented by Loveland Water and Power Redirecting to a non-government site (LWP).

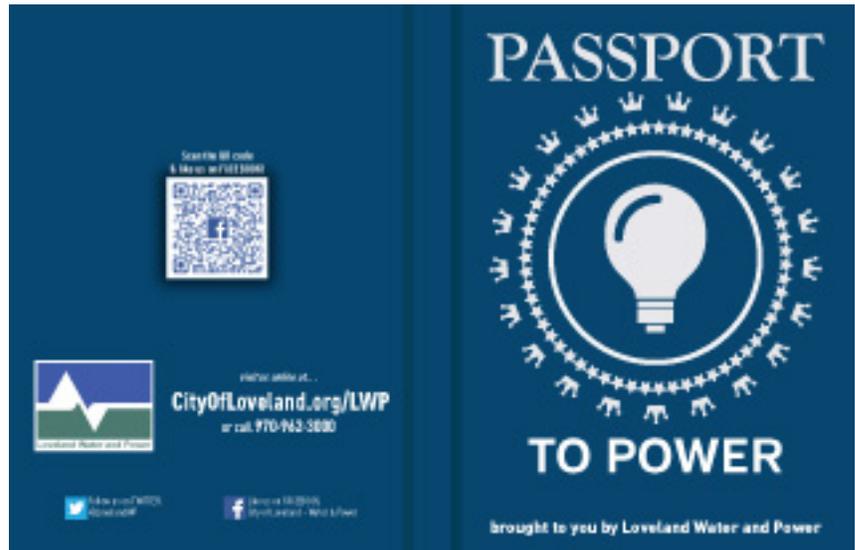
"Passport to Power is part of an ongoing effort LWP is making to connect with the community," explained Customer Relations Specialist Lindsey Bashline, who came up with the idea for the event. "We are trying to educate our customers about where their electricity comes from, how it gets to them and how they use it. It was also a chance to explain to them what it means to get their power from a municipal utility."

## LOTS TO DO, SEE

About 200 customers of the northern Colorado power provider showed up at the Loveland Service Center Feb. 26 to learn about electricity generation, use, safety and more. Visitors received a map of 13 activity and exhibit stations and a "passport" to be stamped at each station. At the end of the evening, two completed passports were drawn for door prizes, a choice of a Garden-In-A-Box kit or a home energy audit.

LWP employees hosted interactive equipment and safety demonstrations and educational displays. Serious-minded customers were able to discuss their electricity bills with utility billing representatives. Namaste Solar Redirecting to a non-government site, a Colorado-based photovoltaic company, and Drive Electric Northern

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Last stop on the Passport to Power tour was the opportunity to have a picture taken with Glow, seen here with LWP Customer Relations Manager Gretchen Stanford.



Electric Metering Supervisor Jonathan Ouzts talks about metering equipment ranging from the 1890s to present day. The display also included meter-testing equipment.

## 'Passport to Power' from page 3

ColoradoRedirecting to a non-government site, a nonprofit group promoting plug-in electric vehicle adoption, set up booths where visitors could explore those technologies. And it wouldn't have been a party without Glow, the LWP firefly mascot, on hand for pictures with kids and families.

### SHOW, DON'T TELL

The 13 stations provided visitors with a peek into the daily work of an electric utility. Platte River Power AuthorityRedirecting to a non-government site, LWP's distribution joint action agency, was there to help explain where the city of Loveland gets its power.

A mini-grid with a model substation and transformer introduced customers to the difference between transmission and distribution lines. "It is powered by a 12-volt battery, and you can flip switches to turn lights on and spin wheels," said Bashline. "It helps to give people an understanding of what is involved in delivering electricity."

Customers discovered more about their own electricity use from a demonstration that allowed them to connect meters to working appliances to see how much power they were drawing.

Utilities consider any gathering of customers to be a great excuse to talk about safety, and Passport to Power gave guests plenty to talk about. One particularly dramatic demonstration involved what happens to a Barbie doll that comes in direct contact with a live electrical line. A mock power outage was staged to show how LWP's outage management system deals with the event. At the power pole station, attendees got to use a hot stick to connect a fuse on a mock pole that turned on a streetlight. A few ambitious customers tried their hand at disconnecting and reconnecting a model pad-mounted transformer.



With the help of a miniature replica of the grid, Electrical Engineer Christine Schraeder explains transmission and distribution systems.



An animation of a coal-fired power plant plays as LWP Senior Electrical Engineer Briana Reed-Harmel talks about different power sources and how they are generated in Loveland.

### GETTING THE WORD OUT

Bashline is pleased with the turnout for Passport to Power, LWP's fourth customer open house since the utility started hosting such events in 2013. "We did a Ride and Drive with Drive Electric Northern Colorado, an open house on water infrastructure and one on the drought, but this was our most hands-on event to date," she said.

No matter how many fun activities and door prizes you plan, you still have to get customers in the door. A combination of traditional publicity, including bill stuffers and direct mail postcards, and social media like Facebook and Twitter seems to do the trick for LWP. "We started using social media about four years ago, but we still do a little of everything to reach all our different customer segments," stated Bashline.

Facebook seems to reach more residential customers, she observed, and Twitter is more effective for connecting with the industry. LWP has had good success using Facebook's post-boosting option, a paid, add-on service that guarantees the utility's Facebook post will appear on followers' pages, Bashline added.

As Passport to Power proves, however, there is no replacement for meeting customers, listening to their concerns and showing them how their utility works. A municipal utility is more than just a business—it is part of the community, and that means taking the time to get to know your neighbors. "The personal touch will always be the cornerstone of customer relations," acknowledged Bashline. ⚡

# UPDATED COOLING TIP SHEET, BILL STUFFER NOW AVAILABLE

Spring is here and it is time to start thinking about your cooling load—how to manage those hot weather peaks and what to tell customers when they call about their electric bills from those days. Better yet, you could talk to your customers now to prevent sticker shock later.

Energy Services has updated its popular seasonal fact sheet, The Tip Sheet: Cooling System Maintenance, and created a new bill stuffer version. Both pdfs are two-sided, four-color and allow room for you to customize with your utility's logo. The 8.5-by-11-inch sheet makes a perfect quick and inexpensive handout for customer meetings, while the bill stuffer is designed to fit into a number nine envelope.

The Tip Sheet provides an overview of simple steps consumers can take to get the best cooling and energy performance from their air conditioners. On the front page you will find a check list of maintenance tasks, which units need that type of service, how to do it and why. The second side offers additional suggestions and websites where consumers can learn more about taking care of cooling systems.

Utilities that don't have the time or the staff to develop outreach material can download the sheet or bill stuffer and imprint it with their logos, or contact Energy Services to set up the printer-ready artwork for you. Use your own printer to produce handouts as you need them, or take the master to a quick printer for more options.

The Tip Sheet and bill stuffer are the ultimate in flexible, convenient collateral material, and it is free to Western customers, including setup if required. If you don't need assistance from Energy Services, we would appreciate knowing that you used The Tip Sheet. We also welcome your ideas for other single-page and bill stuffer material. ⚡

Your logo here

**ENERGY SERVICES**  
**THE TIP SHEET**

**COOLING SYSTEM MAINTENANCE**

**M**ake sure your home's air conditioning will keep you cooled comfortably during the warm months, without driving up your utility bills. Whether you have central or heat-pump air conditioning, ductless (mini-split) units or individual room units, there are steps you can take to keep your air conditioner in good working order and prevent problems throughout the cooling season.

Regular maintenance and preventive care can lengthen the life of your air conditioner, keep energy costs down and make your home more comfortable. Follow these tips to maintain your air conditioners and spend less on cooling your home. Don't forget to unplug your unit before you begin do-it-yourself projects.

CHECK	WHAT	WHICH SYSTEMS	HOW	WHY
	Check air filters—clean or change them	All	Replace dirty disposable filters. Clean permanent filters with mild household detergent and water. Rinse well. Dry filter completely before reinserting.	Filters remove dust, particles and allergens from the air. Dirty air filters can increase energy costs, too.
	Clear grass, weeds and debris away from outside units	All except room units	Remove debris and trim foliage at least two feet around the unit. When you mow, mow grass clippings away.	Units use less electricity when air can move freely through coils.
	Check your ductwork—look for disconnected ducts, leaks or poor insulation	Central, heat pump	Use mastic sealant or metal tape—never duct tape—to seal all ducts within reach. Straighten tangled or kinked ducts, or hire a professional.	Air conditioners work longer and harder to replace cooled air that leaks before it reaches the room.
	Keep registers and vents clean	Central, heat pump	Check that nothing blocks or sits on the registers, including pets.	Free air circulation puts cool air where you want it.
	Clean condenser coils (outside unit)	All except room units	Shut off power to the unit, then gently wash down with garden hose.	Even a thin film of dirt inhibits air movement through the coils and makes your air conditioner work harder.
	Clean inside coils (inside the house)	Central, heat pump	Use a vacuum to gently clean coils, taking care not to damage the coil fins.	Dirt can prevent coils from collecting heat. Clean coils inside and out reduce the unit's electricity use.
	Straighten condenser coil fins	All except room units	Buy a "fin comb" from an air conditioner dealer and carefully comb fins on outside and indoor coils.	Straight, clean fins allow air to move freely through the coils, which improves efficiency.
	Unplug drain ports	Central, heat pump	Clean ports with short piece of wire hanger or picker/knife.	Prevent damage from water leaks, and control humidity.
	Inspect window seals	Room units	Make sure the window frame makes contact with the unit's metal case.	Keep the hot air out and cool air in to improve comfort and use less energy.
	Choose proper location	Room units	Move the unit to a window that is shaded or is not in direct sunlight.	Fans must work harder to cool the outside air when they are in direct sunlight.

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**HELPFUL TIPS FOR USING YOUR AIR CONDITIONER:**

- Always keep all windows and doors to the outside closed.
- Don't cool unoccupied rooms. If you have registers, don't close more than half of them—restricting air flow too much can cause your unit to malfunction.
- Got a ceiling fan? Set the thermostat higher—you will still be comfortable. Keep the fan on low speed when humid.
- When you're not home, set your thermostat to 78 F or higher. Setting the thermostat lower cools a warm room colder, not faster, and it uses more energy to do it.
- Consider getting a programmable thermostat for central units, especially if you're away from home at the same times during the week. Some programmable thermostats can be controlled from your computer or smart phone.
- Keep lamps, televisions and other electronics away from a room unit's thermostat. The thermostat can sense their heat, which may cause the air conditioner to run longer than necessary.

Consider calling in a professional air conditioning maintenance contractor to tune up your system before the cooling season. A tuneup will maximize your comfort in the summer, help your air conditioner last longer and run better, and save on monthly energy bills.

**SOURCES:**

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HNAC for Beginners  
<http://www.hvac-for-beginners.com/ductless-ac-maintenance.html>

Energy Services Web site  
[www.wspa.gov/es](http://www.wspa.gov/es)  
Western Area Power Administration  
Expert's Hotline  
800-769-3756

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Contact us at:  
Western Area Power Administration  
PO Box 281713  
Littleton, CO 80128-0213  
Telephone number: 720-962-7419

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# VIRGINIA, ILLINOIS ELECTRIC CO-OPS WIN 2013 WIND COOPERATIVE OF THE YEAR AWARD

The Department of Energy (DOE) Wind and Water Power Technologies Program and the National Rural Electric Cooperative Association (NRECA) named Old Dominion Electric Cooperative (ODEC) of Virginia and Rural Electric Convenience Cooperative (RECC) of Illinois the Wind Cooperatives of the Year for 2013.

The award ceremony took place at the NRECA TechAdvantage closing luncheon on March 6 in Nashville, Tenn. ODEC won in the Generation and Transmission Category and RECC won in the Distribution Category.

ODEC President and CEO Jack Reasor, and RECC President and CEO David Stuva accepted the awards from Brie Van Cleve, Stakeholder Engagement and Outreach Manager, Wind and Water Power Technologies Office.

The DOE Wind Program has partnered with NRECA for 13 years to recognize leadership in the cooperative community that promotes wind technology.

"The DOE considers electric cooperatives to be very important partners in at least three ways," said Van Cleve during the award presentation. "First, they serve the majority of our nation's land area. Second, co-op managers and board leaders foster direct relationships with end-user customers. Also, they provide affordable and reliable power and contribute significantly to national security," she added.

## TOUGH DECISION

The Wind Cooperative of the Year award was created to recognize electric cooperative pioneers and leaders.



David Stuva, president and CEO of Rural Electric Convenience Cooperative; Brie Van Cleve, Stakeholder Engagement and Outreach Manager, Wind and Water Power Technologies Office; and Jack Reasor, president and CEO of Old Dominion Electric Cooperative, at the 2014 Wind Public Power Awards. (Photo by National Rural Electric Association)

Western's Renewable Energy Program Manager Randy Manion chairs the panel of wind industry, government and electric cooperative experts that chooses the winner.

In addition to ODEC and RECC, the nominees included:

- Farmers Electric Cooperative
- Lyon-Lincoln Electric Cooperative, Inc.
- Midwest Energy, Inc.
- Mountain View Electric Association
- Sunflower Electric Power Corporation
- Tri-State Generation and Transmission Association

This year proved to be particularly difficult, Manion acknowledged. "The 2013 nominees all showed a strong commitment to renewable energy," he recalled. "In the end, we had to pick two winners instead of one, because their achievements were equally im-

pressive, but represented different aspects of wind development."

ODEC was chosen for outstanding corporate leadership, successfully convincing members to pursue wind projects even though Virginia does not have a mandatory renewable portfolio standard for utilities. Also, the utility made the project economically feasible in an area of low wind potential.

RECC earned its award for demonstrating innovative marketing and for transforming a brown-field site into a source of green energy. The utility built the turbine on a mining tailings pile that was high enough to offer better wind speeds than the surrounding area. Also, the site can easily be seen from a well-travelled highway nearby, encouraging the community to identify with its homegrown power source.

Western congratulates the winners of the 2013 Wind Cooperative of the Year award. ⚡

# BPI TO EXHIBIT AT USA STEM FESTIVAL

**E**ducating homeowners is critical to the future of the home performance industry, so Building Performance Institute (BPI) has made consumer outreach a high priority for 2014.

As part of its outreach initiative, BPI is participating in the Third USA Science & Engineering Festival Expo and Book Fair in Washington, D.C., April 26-27.

Designed to inspire the next generation of innovators, the Festival Expo is a free, family-friendly expo that offers kids and adults more than 3,000 hands-on, science related activities and presents more than 100 live stage performances. This year's event is expected to draw upwards of 250,000 participants.

BPI's exhibit will showcase infrared camera equipment to demonstrate the science behind the house as a system. Visitors will learn what the BPI brand means and how BPI-credentialed contractors can make a difference in how their home operates.

The festival features science celebrities, explorers, astronauts, athletes, authors and experts in fields like robotics, genomics, medicine,

advanced manufacturing and even 3D printing.

Serial entrepreneur Larry Bock and Lockheed Martin Chief Technology Officer Ray O. Johnson launched the event to address the severe shortage in science and technology talent. The USA Science & Engineering Festival has grown to become the nation's largest science festival, sparking an interest in young people in careers in science and engineering. Congress recently recognized the festival's role in making science, technology, engineering and mathematics (STEM) education a national priority by designating the last week in April as "National Science Week" and making the event a focal point.

BPI Consumer Campaign BPI's participation in the Festival Expo is part of the institute's consumer marketing campaign to educate homeowners on the whole-house approach to home performance upgrades, and the value of hiring BPI-credentialed contractors.

In November, Google Ad awarded BPI a grant equivalent of \$10,000 per month in ads on Google's search engine. The grant is helping BPI educate the public on the best way

to achieve comfort and energy efficiency in their homes—through house-as-a-system home performance upgrades. The grant supplements an already growing investment in Search Engine Marketing and social media to more effectively reach homeowners through their online searches.

The consumer campaign will draw homeowners to BPI's new homeowner-focused website, expected to launch next month. The site will feature an interactive online energy audit tool, a locator tool for homeowners to find BPI credentialed contractors, videos, case studies and other resources. Consumers will be able to learn about home performance, hear from other homeowners, discover the value of BPI's credentials and find their contractor all in one place.

BPI will also explore opportunities to forge new relationships with major do-it-yourself, remodeling and home construction media outlets to raise awareness of BPI-credentialed contractors and the home performance industry. *Source: Building Performance Institute, 3/10/14* ⚡



The banner features a central circular graphic with concentric rings in blue, green, and orange. Inside the rings are icons representing science and engineering, such as a microscope, a lightbulb, a gear, and a DNA helix. The text "USA SCIENCE & ENGINEERING FESTIVAL" is written across the rings. To the right of the graphic, the text reads: "USA SCIENCE & ENGINEERING FESTIVAL FREE EXPO: APRIL 26 & 27, 2014 STEM APRIL 24 WALTER E. WASHINGTON CONVENTION CENTER - WASHINGTON D.C. FOUNDING & PRESENTING HOST: LOCKHEED MARTIN". The Lockheed Martin logo is at the bottom right.