

# MDV-SEIA's SOLAR FLARE

ALL ABOUT THE SOLAR WORLD WE LIVE IN

## SPRING IS HERE!

### MEMBER SPOTLIGHT: PROSPECT SOLAR

As part of MDV-SEIA's competitive quarterly spotlight series, we sat down with Jon Hillis of Prospect Solar to learn more about their work in the region.

#### Who is Prospect Solar?

Prospect Solar was created in late 2010 when our sister commercial waterproofing, roofing, and green roofing company, Prospect Waterproofing, started receiving requests to bid rooftop solar on commercial projects. Apparently the installers that were providing bids to our general contractor clients were not qualified to install systems on new roofs and still keep the roofing manufacturer's warranties intact. Since we subcontract our installation labor to Prospect Waterproofing we've also had the luxury of being able to grow slowly over the past 3 years, working in specific market segments that are suited to our unique abilities, and installing when projects are ready. To date, most of our installations have been performed in the large scale residential and smaller commercial markets, with many

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A 4.4 kw, 20-panel PV system on the roof of Prospect Solar's Sterling, VA office.

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 Have questions? We're here to help! Email us to learn more at [director@mdvseia.org](mailto:director@mdvseia.org)



## MARYLAND: \$100 EXEMPTION LAW PASSES

On March 13, the Maryland General Assembly passed a ground breaking piece of legislation that will allow small businesses and micro-enterprises to raise debt capital from Maryland residents.

The new law minimizes risk to investors by restricting each individual's investment to \$100 and allows small businesses to raise up to \$100,000 in any given year. By allowing borrowers to pay individual investors interest, the new law encourages

Maryland residents to see investment in Maryland as an option for the benefit of their communities and their own financial gain. The law will go into effect as of October 1, 2014.

### Why is this important?

Startups and small businesses are the engines that drive our local economies and yet they have a hard time getting the capital they need – including solar businesses.

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## BEST ADVICE: SUBMIT A BUSINESS PLAN TO HARVARD, AND GET OUT OF THE WAY

### Jigar Shah

In January 2003, I started SunEdison LLC. I was still an employee at BP Solar but had a dream of starting my own company. I added two co-founders and after a few investor meetings, I got the same advice from everyone: "You really need a CFO." Now I was 28 years old and had no idea why I needed a CFO. I asked folks what I should look for and got mealy mouth responses like, "Find someone with gravitas and an attention to detail." As

someone with oodles of self-confidence with two solid partners, accepting that I needed another person for a business that was not yet off the ground seemed like a dumb idea.

A few weeks later one of my business partners, Claire Broido Johnson, asked me if she could submit our business plan to the Harvard Business School's annual Business Plan Contest. As someone who only attended public universities, I was immediately offended. The last

thing I needed was validation from an Ivy League school. But she was adamant and I think I said something like, "as long as I never have to present or be a part of it, go for it!"

There was one wrinkle; we needed a local student sponsor on our team. Claire chose Brian Robertson, a successful entrepreneur that went back to business school and ran the Harvard Business School Sustainable Development Society – the

same club Claire used to run. I didn't know it at the time, but Brian was a winner. Claire was also a winner, but Brian had an insatiable appetite for winning and as you can guess, he and Claire did [win](#) the case competition – and true to my word I never lifted a finger.

Brian graduated a few months later and then turned down a senior role at Yahoo! to join SunEdison. Once he came on board I went out to the investors and told them that I found

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## WARD 3 RESIDENTS BAND TOGETHER TO INSTALL SOLAR AT SIGNIFICANT DISCOUNT

Over 40 neighbors in Ward 3 are going solar together and getting a group discount, with the help of local nonprofit [DC Solar United Neighborhoods](#) (DC SUN). By going solar as a group, participants in the bulk purchase save approximately 30% off the typical cost of installing solar systems on their homes, while also building community in the process.

By aggregating their purchasing power, the homeowners of Ward 3 were able to get a much lower price on installing solar panels on their homes than if they had done so individually. They worked with local nonprofit DC SUN, who provided unbiased technical support and guided the group through the entire process. DC SUN issued a Request for

Proposals (RFP) on behalf of the group to solicit competitive bids from local installers.

Once the group had received bids from local installers, fifteen volunteers from the group of participating homeowners formed a committee to choose a single installer for the whole group. The Ward 3 Selection Committee reviewed bids and selected

DC-based [Solar Solution](#) to complete all of the installations for Ward 3. Each participant will own their individual system and will sign their own customized contract with the company, but all will receive the group discount. Solar Solution is a solar photovoltaic company that has thrived in the DC market since 2009, installing over

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Continued **MEMBER SPOTLIGHT**

projects requiring some sort of remedial roofing work as well.

Our team consists of Jim Stamer – Owner/President, Jon Hillis – Vice President, Drew Skinner – Lead Estimator, Kevin Graves, NABCEP certified Engineer, Nick Messer – Sales Associate and Marketing, and Clinton Eickelberg – Contract Administration.

**Tell us about one of your recent projects. What is unique about it?**

In 2013 we completed a 41 kW array at Catoctin Creek Distilling Company in Purcellville, Virginia which is the largest solar array installed in Loudoun County and one of the largest privately owned arrays in Virginia. The owner of Catoctin Creek wanted to create solar powered spirits to the greatest extent possible so the system was sized to

provide an offset of 70% to 85% of his projected energy use. Since the facility was a retrofit of an existing space we had to estimate the new usage from his utility bills at the previous location.

The building where Catoctin Creek relocated was the historic 100-year-old Case Building in downtown Purcellville. Since the loading capacity of the existing building's roof structure was not known the owner had to include a structural renovation in his budget to support the weight of the new equipment on the roof. Appearance was also a concern so a low profile ballasted racking system was used.

Upon completion of the system, Prospect Solar and Catoctin Creek Distilling Company hosted a New Power for the Old Dominion event. The presentation was held in their tasting room and distilling room, attended by a panel of



Prospect Solar's entrance to their underground building in Virginia.

environmental and renewable energy experts and about 80 local residents. Catoctin Creek may have the only certified organic, kosher, solar powered, rye whiskey in the world. Try the Roundstone Rye!

**Do you have any other exciting projects in the pipeline?**

We are waiting for final permit approval from Fairfax County for a 56 kW commercial

installation at an office building in Chantilly, Virginia. This installation will be the largest array in Fairfax giving Prospect Solar the bragging rights to two prominent counties in Northern Virginia.

The DC SEU low-income resident installations in the District of Columbia will also keep us busy through the summer. We hope to install 20 to 25 of these projects this year with Darrell Green and Trusted Solutions Group.

**What opportunities for future growth do you see in the field?**

Currently the District of Columbia holds the most promise and unrealized potential for new solar installation in the DC metro area. With the undersupplied SREC market, Renewable Energy Incentive Program, PACE financing option, and the new option of Community Renewable Energy Facility installations there is a tipping point in the near future for commercial installations.

Lack of incentives and low utility prices make Virginia one of the greatest untapped solar markets in the nation. While these issues are roadblocks for



Prospect Solar's project for the Catoctin Creek Distilling Company. Upon completion of the system, Prospect Solar and Catoctin Creek Distilling Company hosted a New Power for the Old Dominion event. The presentation was held in their tasting room and distilling room, attended by a panel of environmental and renewable energy experts and about 80 local residents. Catoctin Creek may have the only certified organic, kosher, solar powered, rye whiskey in the world.

some, they also present an opportunity for creative marketing for others. Recent achievements in the General Assembly for renewable energy also give hope for a sunnier future in Virginia.

On the broader scale, the battery backup market is poised to reap any benefits of the net energy metering wars. This all depends on how hard the utilities intend to dig in their heels. New community solar opportunities will also be able to increase the market 5 fold while decreasing installation costs.

### What future challenges do you expect to see?

Challenges to existing net energy metering codes from utilities are just beginning across the nation and Virginia will likely not be immune. Until all parties can agree on methods for determining costs and benefits for all aspect of distributed solar generation there can be no consensus and the issue will remain. We are hoping a push from the General Assembly and the industry in Virginia will move this dialogue forward with the utilities.

### What is your stance on distributed generation policy?

My stance on energy and distributed generation policy derives from the concept that renewables should be allowed to compete on a level playing field with traditional generation/distribution and correctly priced fuel sources, with no incentives for either, and with decoupling of utilities' profits from their sales of energy. If this were to happen large scale traditional generation facilities would slowly shut down and distributed generation

renewable energy would be the only source of new energy installed on the US grid from this date forth. Getting to that point with the current state of the renewable energy industry and the investor owned utility model is the problem at hand.

### Do you have any final thoughts for someone who is interested in joining the industry?

My suggestion to you is read 10 or so renewable energy articles everyday for several months and you will soon be as up to date as most. More important than technology, remain current on the policy and legislation in your state, county, etc. and get involved at that level. Understand what the market drivers are in the area where you decide to work. Follow others' blogs in the renewable energy industry and on Twitter as well.

Continued

## MARYLAND: \$100 EXEMPTION LAW

Under existing federal law, businesses cannot solicit and borrow funds from community members and pay back the loan with interest without extensive and expensive registration with the SEC. By creating an exemption for small scale lending, the new bill will open opportunities for small businesses across Maryland to get loan capital to grow and thrive.

By allowing individuals to invest small amounts of money in local businesses and earn a competitive return, the legislation will build stronger, more connected and resilient communities in our state.

### What does the new law do?

The law will allow small businesses, based in Maryland, to invite Maryland residents to lend them money and get repaid, with interest - something that was not possible before the bill.

Businesses will be able to borrow up to \$100,000 in any given 12 month period; lenders will be limited to a maximum of \$100 per business per loan.

The \$100 limit will protect average investors from large losses and because it is low will encourage a broader group of people to participate.

The bill will promote closer ties between businesses and their communities.

Businesses will only be required to file notice with the Maryland Securities Commission, rather than going through the complex securities registration and reporting currently required.

The bill makes Maryland a leader in the nationwide effort to open new access to capital through crowd-funding mechanisms and will strengthen our state by building a strong local business base.

Continued

## BEST ADVICE

my CFO. We all knew that Brian was no CFO. He was a COO, a President, a *doer*, but certainly not a CFO. After introducing Brian to our potential investors, he raised money from them in 25 days .



Brian & Claire accept the award from Harvard

It wasn't that we needed a CFO, it was that my investors needed to know that I had a real co-pilot - one that would make sure I didn't quit and one that had skills that I lacked.

Ever since those days I have sought out "winners." Many folks who want to be part of this club, yet only a few actually make it. These are folks that not only want to win, but they have certain humility about what it takes to win. They put in the hours and the effort, but know that even that only doubles their chances from 1 percent to 2 percent. That doubling gives them a warm feeling of progress with no external recognition of the fact that we still have a 98 percent chance of losing.

The best advice I got was from Claire to take the chance and submit the business plan. The best luck is that I did not participate in the presentation, and Brian was light years better than any CFO.

Sadly, Brian Robertson is no longer with us, the world lost him too young, but his memory lives within all of us. Winning is not about money or ego, it is about making the world a better place. Brian left this world a better place.

If you wish, in Brian's memory, you can donate to The Brian D. Robertson Memorial Solar Schools Fund "[BDR Fund](#)" -- to educate 10 million students with solar energy systems at 20,000 schools by 2020.

MDV-SEIA has partnered with the BDR fund and is working to build solar on schools throughout Maryland, DC and Virginia. It is our hope that by making solar an everyday sight, students will become interested in the industry. We look forward to continued collaboration with the BDR Fund.

Continued **WARD 3**

650 solar PV systems in the city. This is the second time that Solar Solution has bid successfully on a DC SUN-organized solar Bulk Purchase. In August 2013, Solar Solution was chosen by the Ward 4 Bulk Purchase Selection Committee to complete installations on their homes.

"We had a great experience working alongside DC SUN last year," says Atta Kiarash of Solar Solution. "We're excited to also be the solar installer for the Ward 3 Neighborhood Bulk Purchase group."

Anya Schoolman, President of DC SUN, says the bulk purchase is a win-win solution for encouraging solar in the District:

"This is our sixth bulk purchase in DC since early 2013 and we continue to be amazed by all the interest we receive from homeowners. Going solar as part of a group makes the process much easier to navigate. Participants can rely on each other throughout the process while saving money."

## ITA DELAYS TRADE CASE DECISION

The U.S. International Trade Administration (ITA) has postponed its countervailing duty determination by about two months, leaving the solar industry hanging for a while longer.

On March 11, 2014, the ITA gave notice of its determination that it needs more time to investigate alleged unlawful subsidies provided by China to the Chinese Crystalline Silicon Photovoltaic (CSPV) products

manufacturing industry. 79 FR 13617 (Mar. 11, 2014), Case No. C-570-011. ITA stated that the complexity of the case justified moving the case from the "normal" investigation track for a countervailing duty (CVD) case to the "complicated" case track under relevant law and regulations.

The action extends the expected date of the ITA's preliminary determination in the CVD investigation from about **March 28, 2014** (65 days after initiating the investigation) to about **June 2, 2014** (first business day past 130 days after initiation). The CVD investigation only affects CSPV products from China. The dumping (AD) investigation against CSPV products from both China and Taiwan is unchanged, and a preliminary determination in that case is still due on or about **June 9, 2014**. Case Nos. A-570-010, A-583-853.

## SPIE 2014 Award Winners

Winners of awards recognizing outstanding technical achievements and service to the society have been announced by SPIE, the international society for optics and photonics. The annual awards program recognizes both individual and team technical accomplishments.

Jeremy Munday, an assistant professor at University of Maryland in College Park, Maryland, is the 2014 recipient of the Early Career Achievement Award in recognition his innovative experimental and theoretical work on photonic engineering for solar energy devices and Casimir forces.

"Jeremy is an outstanding talent with a proven track record of accomplishment in fundamental and applied science, as a Harvard graduate student, Caltech postdoc, and now junior faculty member at Maryland," said Harry Atwater of the California Institute of Technology. "I strongly believe Jeremy has the intellectual capacity, presence and energy to define new scientific frontiers and to also contribute thereby to the world's expanding need for renewable energy advances."

Munday's seminal experiment, the first experimental demonstration of a repulsive Casimir force, was featured as a cover article in *Nature* in 2009. This led him and his colleagues to consider how this phenomenon could be applied to ultra-low static friction devices and sensors and to consider how rotations and torques could be generated by quantum fluctuations between anisotropic materials. His work in that field has already been cited over 450 times in peer-review journals.

In the field of solar energy conversion, Munday was one of the pioneers of incorporating photonic and plasmonic elements in photovoltaic converters. That work has been featured on the covers of *Nano Letters*, *Advanced Materials*, *Journal of Applied Physics*, and *Applied Physics Letters*, and has been cited over 300 times in the last few years.

The SPIE Early Career Achievement Award, given for the first time in 2008, goes to an early career professional in recognition of significant and innovative technical contributions to any of the engineering or scientific fields of interests to SPIE.

For more information on the 2014 SPIE Award recipients and past winners, visit [www.spie.org/x45.xml](http://www.spie.org/x45.xml).

SPIE presents several yearly awards that recognize outstanding individual and team technical accomplishments and meritorious service to the Society. SPIE urges you to nominate a colleague for his or her outstanding achievements. Nominations may be made through October 1 of any given year and are considered active for three years from the submission date. Visit [www.spie.org/x1164.xml](http://www.spie.org/x1164.xml) for instructions and nomination forms.

SPIE is the international society for optics and photonics, a not-for-profit organization founded in 1955 to advance light-based technologies. The Society serves nearly 235,000 constituents from approximately 155 countries, offering conferences, continuing education, books, journals, and a digital library in support of interdisciplinary information exchange, professional networking, and patent precedent. SPIE provided \$3.2 million in support of education and outreach programs in 2013.

## Flickering Fate

By Bill Sizemore

While Virginia's largest electricity utility enjoyed smooth sailing in the halls of the General Assembly, renewable-energy advocates struggled to get a foothold this session.

Dominion Virginia Power — which relies overwhelmingly on fossil-fuel and nuclear power generation — easily achieved its top priority in the 2014 session: legislative

permission to write off some \$400 million it's spent planning a nuclear plant that may never be built.

In contrast, advocates of renewable energy failed to achieve their top legislative objective: an incentive program aimed at encouraging installation of solar, wind and other such systems. The differing fates of the two electric-power initiatives provide a telling glimpse of the political-power dynamics in Richmond.

The renewable-energy measure started on an ambitious note. In its original form, it would have authorized up to \$100 million a year in tax credits for installing systems that derive energy from sunlight, wind, falling water, biomass, waste, landfill gas, wave motion, tides or geothermal power.

That was quickly downgraded into a grant program that would be capped at \$10 million a year — a minuscule piece of Virginia's \$50 billion budget. Lawmakers put off any decision on the measure until 2015.

The Senate sponsor of the legislation, Tommy Norment, a Republican from James City County, says the most he's hoping for now is a \$70,000 budget provision to allow regulations to be written in anticipation of launching a program next year. Advocates say it's a baby step toward catching up with neighboring states that are outpacing Virginia in encouraging renewable energy.

"We have so much ground to cover," says Tony Smith, president and chief executive of Secure Futures, a Staunton-based solar-energy company.

"We pale in comparison to our surrounding states."

North Carolina, Maryland and Delaware, for example, offer state tax credits or other incentives for solar-power systems.

The absence of such incentives in Virginia is reflected in the state's puny solar-generating capacity, which is less than 5 percent of North Carolina's.

On-site solar-power systems allow homeowners and businesses to reduce their electricity bills by tapping a free, inexhaustible energy source. And, unlike fossil fuels, solar power releases no greenhouse gases or other pollutants.

Those surrounding states also have mandatory renewable-portfolio standards, which require utilities to generate a minimum of their electricity from renewable sources. Virginia has only a voluntary standard, and Dominion has lobbied hard to keep it that way, arguing that a mandatory standard could drive up rates. "They're defending a business model that works for them," Smith says. "It's a business model that is threatened by distributed power generation." David Botkins, a Dominion spokesman, counters that the utility is undertaking several renewable-energy initiatives. He cites a planned series of large-scale rooftop solar installations, the first one on the campus of Old Dominion University; a proposal to build two test wind turbines off the Virginia Beach Oceanfront; and the conversion of three coal-consuming generating plants to use biomass material.

"We are in the mix in renewables in a big way," Botkins says.

Renewable-energy advocates argue that those technologies need a jump-start to level the playing field as they compete with regulated utilities such as Dominion that have a state-guaranteed rate of return.

"The problem is, you've got one player who gets to participate," says Francis Hodsoll, president of E&E Frontiers, a Northern Virginia-based energy consulting firm. "It's the nature of markets. When you've got competition, you get innovation."

Supporters say the grant program proposed this year would generate some 1,300 jobs with a \$245 million economic impact over five years.

The absence of such policies is driving renewable-energy entrepreneurs out of Virginia and into states with a more favorable economic climate, they say.

Dominion took no position on the renewable-energy measure, but it mounted a full-court press for the nuclear write-off, which passed both chambers of the Assembly by overwhelming margins despite the objections of Attorney General Mark Herring.

The utility said it needed the measure as a signal that it has the state's support for building a third nuclear plant.

Critics say the write-off will make it less likely that Dominion rate-payers will see refunds or rate reductions, even as state regulators project that the company will collect \$280 million in excess earnings during the next two years. Dominion disputes that contention and maintains that adding more nuclear capacity could result in lower rates.

The resources deployed by Dominion at the statehouse dwarf those of the renewable-energy industry — or, for that matter, virtually any other interest group that lobbies the legislature. The utility employs 11 lobbyists to pitch its point of view.

The company was the biggest corporate campaign donor to state candidates last year, swelling their coffers by nearly \$1 million, according to a compilation by the Virginia Public Access Project, a nonprofit tracker of money in politics.

Dominion also was the biggest source of gifts and trips to lawmakers, passing out excursions to the Masters golf tournament, Washington Redskins football tickets and other perks.

The renewable-energy industry gave a total of \$67,000 in campaign contributions to Virginia candidates last year — 1 percent of all donations from the energy and natural resources sector.

Delegate Ron Villanueva, a Virginia Beach Republican and the House sponsor of the languishing incentive proposal, says he hopes Gov. Terry McAuliffe's administration will get on board with the idea. "We need to incentivize the renewable-energy industry," Villanueva says. "It desperately needs our help."

## JOB POSTINGS



Please visit Sol System's website to view all available positions

### Associate, Project Finance

Sol Systems is seeking an associate to join our project finance team. In this role, you will work with our project finance clients to originate and diligence solar project opportunities as well as reaching out to potential new sources of funding. The role will require a combination of project finance expertise, solar knowledge, written and verbal communication skills, etc.

### Associate, Tax Equity

Sol Systems is seeking a full-time associate to join our tax equity team. In this role, you will work with our tax equity investor partners to find the right projects to meet their investment criteria and work closely with them throughout the transaction process to bring their investment to financial close. The role will require a combination of project finance expertise, solar experience, written and verbal communication skills, project management capabilities, business development efforts, negotiation skills, and leadership skills.

### Project Manager

Sol Systems is seeking an experienced project manager to join our operations team. In this role, you will work with our developer and EPC partners to manage the successful delivery of solar projects on behalf of our investor clients. The Project Manager will be required to manage and communicate between various stakeholders to ensure that all interests are being met during the installation and operation of new systems.



### Solar Consultant

Paradise Energy Solutions, LLC has an immediate job opening for a fulltime commissioned sales position in Baltimore area. This position requires excellent people and communication skills, fundamental knowledge of the solar industry and the applicable incentives, and a creative and innovative approach to sales. The ideal candidate would come with established relationships in the Baltimore area and be able to sell into both the residential and commercial markets. Compensation plan is negotiable; however standard plan will include a weekly commission advance to be offset by commissions earned.

To apply please contact Marcus at 877-851-9269

### Project Manager

Manage all aspects of project delivery, including scheduling, permitting and verifying part requirements, ordering and delivery.

To apply please contact Marcus at 877-851-9269

## EVENT ANNOUNCEMENTS

### 2014 STRATEGIC PLANNING SESSION



April 10th, 1PM-5PM ET  
101 Constitution Avenue NW,  
Washington, DC 20001

Followed by a Happy Hour at  
the 201 Bar

[REGISTER HERE](#)

Help shape MDV-SEIA's future: join us at the 3rd Annual Strategic Planning Session. **Registration is free, but required** for this event due to space constraints. Refreshments will be provided.

Members and non-members are welcome to attend, as we want to gain feedback from as many sources as possible in order to improve the association. This event will give you the opportunity to connect with the Board of Directors to express what you consider to be the top priorities for our association. We can best serve our members when we know what YOU want us to do. We use information gathered at this meeting to shape our strategic objectives for the year.

If you are unable to attend, please feel free to send someone else from your organization or email your thoughts to Dana at [director@mdvseia.org](mailto:director@mdvseia.org).

The session will be followed by a happy hour at the 201 Bar in their State Lounge, located at 201 Massachusetts Ave NE, Washington, DC 20002. 201 is offering us extended happy hour prices from 6PM until closing.



Exhibition:

Conference: July 7-9, 2014  
Moscone Center  
747 Howard Street  
San Francisco, CA 94103

Be a part of North America's most-attended solar event - **Registration is free until May 10, 2014!**

Join up to 18,000 visitors and 600 exhibitors for solar deal-making in one of the world's leading solar markets!

MDV-SEIA is pleased to announce the partnership with Intersolar North America. Through MDV-SEIA's partnership with Intersolar North America, MDV-SEIA Members are invited to visit the exhibition and its complimentary programs in Moscone Center **free of charge**.

Free visitor registration is available with the Promotion Code ISNAGRP202 (value up to \$150).

Additional discounts for the Intersolar North America Conference, taking place at InterContinental Hotel next to the exhibition center, are available for MDV-SEIA members:

- 10% on the Full Conference Package - ISGRP302
- 10% on the PV Package - ISGRP802
- 10% on the SHC Package - ISGRP1302

Register for InterSolar [here](#).