SunShot
U.S. Department of Energy

SUNSHOT GRAND CHALLENGE SUMMIT AND PEER REVIEW

EVENT PROGRAM

MAY 19—22
2014

ANAHEIM, CALIFORNIA
Hilton Anaheim

WELCOME

Welcome to the SunShot Grand Challenge Summit and Peer Review 2014

Building on the success of the first SunShot Initiative Grand Challenge Summit in 2012, this year's premier gathering convenes hundreds of the best and the brightest in the solar community to review the progress made toward the SunShot goal – including 60% progress to achieving cost-competitive utility-scale solar electricity – and to think big about the challenges and opportunities ahead for the U.S. solar industry.

The SunShot Initiative team is honored to welcome nearly 300 SunShot-funded project teams, business leaders, innovative researchers and scientists, and energy policymakers to the 2014 SunShot Grand Challenge Summit and Peer Review in Anaheim, Calif.

Over the next four days, you will have a platform to network, exchange ideas, and identify strategies with other members of the solar community to tackle the grand challenge ahead, help determine future SunShot funding priorities to achieve the SunShot goal and make solar affordable for more Americans.

Thank you for participating.

SUMMIT HIGHLIGHTS

KEYNOTE SPEAKERS AND PLENARY SESSIONS

Hear from top leaders in the business, research, and energy policymaking communities provide unique perspectives on the future of the U.S. solar energy industry.

GRAND CHALLENGE BREAKOUT SESSIONS

Solar industry leaders and subject matter experts across 15 breakout sessions will provide insights and perspectives on the "grand challenges" to achieving the SunShot 2020 affordability goal—how to speed deployment, enable the growth of the U.S. solar market, and deliver affordable and accessible solar energy to all Americans. The ideas generated in these sessions will be incorporated into future SunShot funding priorities.

INDUSTRY WORKSHOPS

Focused workshops and discussions will provide SunShot an opportunity to gather feedback from you and other stakeholders across various high-impact areas in the Energy Department's solar energy project portfolio, and to identify the barriers and opportunities associated with SunShot's goals.

INTERACTIVE TECHNOLOGY FORUM

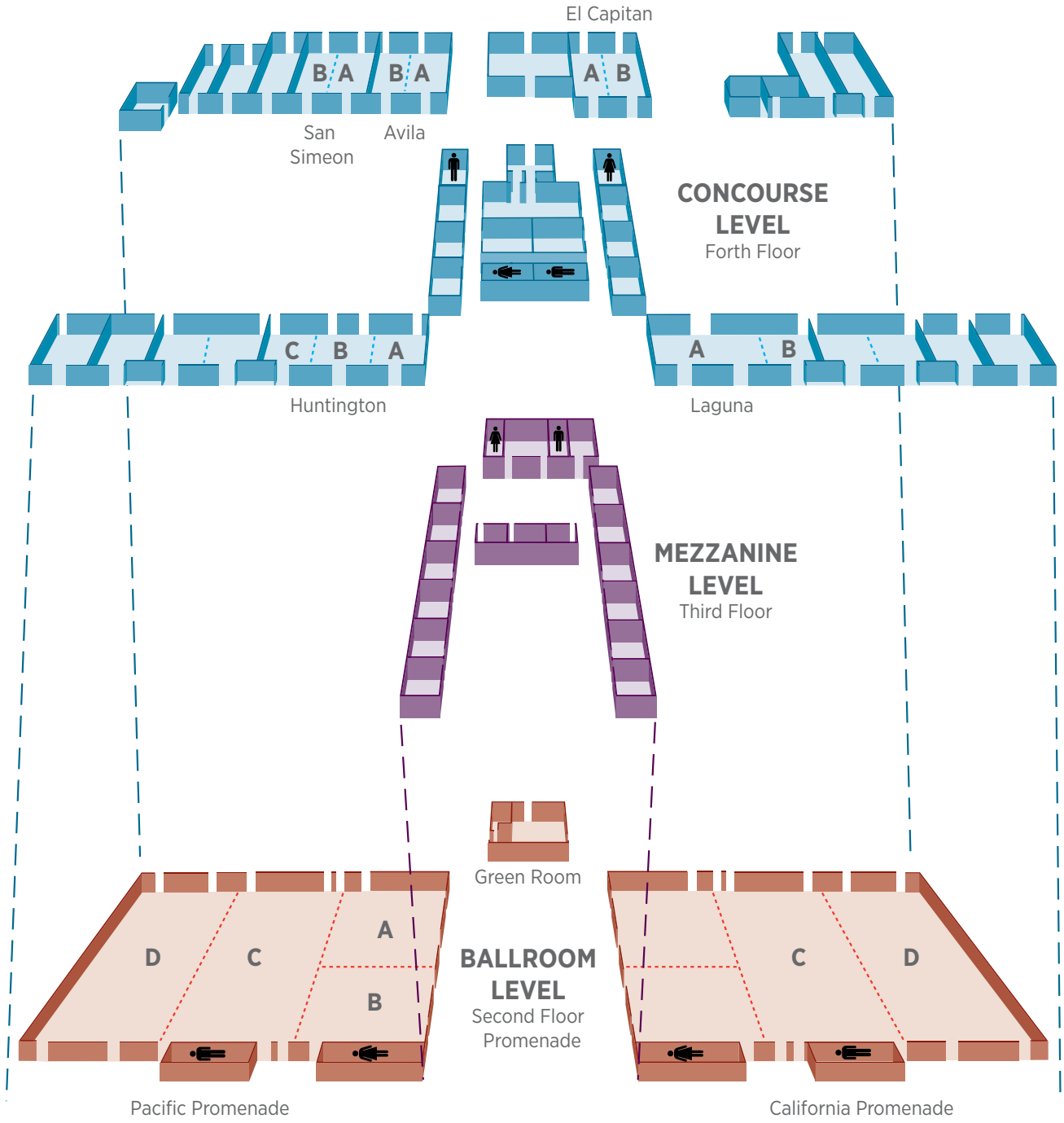
You will have a unique opportunity to view interactive technology demonstrations and hundreds of poster displays, showcasing innovative work by SunShot awardees.

NETWORK WITH SOLAR PROFESSIONALS

Foster new partnerships with innovators in the solar industry, including SunShot-funded teams and the entire SunShot staff, and walk away with a comprehensive update on the latest in solar research and development.

SUNSHOT PEER REVIEW

SunShot will also host a Peer Review of the SunShot portfolio of projects. Awardees representing nearly every project funded by the SunShot Initiative will be onsite at the event and participating in the peer review. The primary goal of the SunShot Peer Review is to provide information that assists program managers and staff, as well as researchers and others, in their efforts to improve program performance. The review will take place Tuesday May 20 and Wednesday May 21 from 4-7pm and is closed to the public. Awardees will begin checking in at the Peer Review check in desk at 3:45pm on Tuesday and Wednesday.



Venue Information

HILTON ANAHEIM
777 W Convention Way
Anaheim, California 92802

USA TEL: +1-714-750-4321
FAX: +1-714-740-4460

Hilton Anaheim

Agenda

MONDAY MAY 19, 2014

12:00 PM	**Registration open**	**Promenade**
4:00 PM - 4:15 PM	**Kick-off Speaker:** • **Minh Le**, Director, SunShot Initiative, U.S. Department of Energy	**Pacific B**
4:15 PM - 4:30 PM	**Kick-off Speaker:** • **The Honorable Tom Tait**, Mayor of Anaheim	**Pacific B**
4:30 PM - 7:00 PM	**Grand Opening and Welcome Reception; Technology Forum**	**California C/D**

TUESDAY MAY 20, 2014

7:30 AM	**Registration open**	**Promenade**
7:30 AM - 8:30 AM	**Continental Breakfast**	**Pacific Promenade**
8:30 AM - 8:40 AM	**Keynote:** • **Minh Le**, Director, SunShot Initiative, U.S. Department of Energy	**Pacific C**
8:40 AM - 9:00 AM	**Keynote:** • **Dr. Ramamoorthy Ramesh**, Deputy Director for Science and Technology, Oak Ridge National Laboratory	**Pacific C**
9:00 AM - 9:30 AM	**Keynote:** • **Raffi Garabedian**, Chief Technology Officer, First Solar	**Pacific C**
9:30 AM - 10:30 AM	**Headlining Panel:** The SunShot Initiative: The Future is Bright **Moderator:** • **Jeffrey Ball**, Scholar-in-Residence, Stanford University **Panelists:** • **Craig Cornelius**, Sr. VP of Business Development, NRG Solar • **Joseph Desmond**, Sr. VP of Marketing & Government, BrightSource • **Linda Fisher**, VP and Chief Sustainability Officer, DuPont Safety, Health & Environment • **Kris Mayes**, Professor, Arizona State University • **Timothy Simon, Esq.**, Consultant, Former California Public Utility Commissioner	**Pacific C**

TUESDAY MAY 20, 2014

10:30 AM - 11:00 AM	**Break**	
11:00 AM - 11:30 AM	**Keynote:** • **Billy Parish**, Founder and President, Mosaic	**Pacific C**
	SUNSHOT PORTFOLIO OVERVIEW	
11:30 AM - 12:30 PM	**SunShot Initiative Overview:** • **Minh Le**, Director, SunShot Initiative, U.S. Department of Energy • **Dr. Elaine Ulrich**, Acting Balance Of Systems/Soft Costs Program Manager • **Dr. Ranga Pitchumani**, Chief Scientist & Concentrating Solar Power Program Manager; Systems Integration Acting Program Manager • **Dr. Becca Jones-Albertus**, Photovoltaics Program Manager • **Dr. Lidija Sekaric**, Technology To Market Program Manager	**Pacific C**
12:30 PM - 1:30 PM	**Lunch**	
	SUNSHOT SUBPROGRAM OVERVIEWS	
1:30 PM - 3:30 PM	**Systems Integration**	**Huntington A/B/C**
	Soft Costs	**Laguna A/B**
	Photovoltaics	**Pacific B**
	Concentrating Solar Power	**Pacific A**
	Technology to Market	**Avila A/B**
3:30 PM - 4:00 PM	**Break**	
4:00 PM - 7:00 PM	**Technology Forum**	**California C/D**

WEDNESDAY MAY 21, 2014

7:30 AM	**Registration open**	**Promenade**
8:00 AM - 9:00 AM	**Continental Breakfast**	**Pacific Promenade**
7:30 AM - 8:45 AM	**Women In Solar Breakfast*:** • **Dr. Cheryl Martin**, Director, Advanced Research Projects Agency-Energy	**Laguna A/B**
9:00 AM - 9:10 AM	**Keynote:** • **Minh Le**, Director, SunShot Initiative, U.S. Department of Energy	**Pacific C**
9:10 AM - 9:40 AM	**Keynote:** • **Dr. David Danielson**, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy	**Pacific C**
9:40 AM - 10:05 AM	**Keynote:** • **Dr. Dan Arvizu**, Director, National Renewable Energy Laboratory	**Pacific C**
10:05 AM - 10:15 AM	**Keynote:** • **Ali Zaidi**, Deputy Director for Energy Policy, The White House Domestic Policy Council	**Pacific C**
10:15 AM - 10:20 AM	**Video Address:** • **The Honorable Scott Peters (CA-52)**, U.S. House of Representatives	**Pacific C**
10:20 AM - 10:30 AM	**Keynote:** • **Cristin Dorgelo**, Assistant Director, Grand Challenges, The White House Office of Science and Technology Policy	**Pacific C**
10:30 AM - 10:45 AM	**Break**	

*Pre-registration is required.

WEDNESDAY MAY 21, 2014

GRAND CHALLENGE BREAKOUT SESSIONS

10:45 AM - 11:45 AM	**TRACK 1** Laguna A/B	**TRACK 2** Avila A/B	**TRACK 3** Pacific A
	All Solar is Local	**Open Innovation:** SunShot Catalyst and Next Generation Government Prizes	**Disruptive Solar Technologies:** Frontiers in New Materials and Approaches
	TRACK 4 Pacific B	**TRACK 5** Huntington A/B/C	**TRACK 6** San Simeon A/B
	Bringing Solutions to the Solar Industry: Startups, Technology Development, and Market Entry	**Solar as a Base Load Power Source**	**Looking Forward:** The Solar Market in 2040
11:45 AM - 1:15 PM	**Lunch**		
1:15 PM to 2:15 PM	**TRACK 1** Laguna A/B	**TRACK 2** Avila A/B	**TRACK 3** Pacific A
	The New Science of Soft Costs: Tutorials in Big Data, Social Physics, and Randomized Pilots	**Business Innovation in Solar:** Thriving Beyond Incentives	**The Future of CSP:** Opportunities and Challenges
	TRACK 4 Pacific B	**TRACK 5** Huntington A/B/C	**TRACK 6** San Simeon A/B
	A Look Ahead: PV Manufacturing in 10 Years	**Solar in the Connected Building**	**Pitch For Solar**
2:15 PM - 2:30 PM	**Break**		
2:30 PM to 3:30 PM	**TRACK 1** Laguna A/B	**TRACK 2** Avila A/B	**TRACK 3** Pacific A
	The Next Frontier for Solar Deployment: The Mid-Size Market	**Solar Securitization:** Opportunities and Challenges	**The Future of CSP:** Opportunities and Challenges
	TRACK 4 Pacific B	**TRACK 5** Huntington A/B/C	**TRACK 6** San Simeon A/B
	Getting in the Loop: PV Hardware Recycling and Sustainability	**The SunShot Approach:** How a Funding Opportunity is Born and Managed	**Pitch For Solar**
3:30 PM - 4:00 PM	**Break**		
4:00 PM - 7:00 PM	**Technology Forum**		**California C/D**

THURSDAY MAY 22, 2014

9:30 AM - 10:30 AM	Continental Breakfast	Pacific Promenade
	SUNSHOT WORKSHOPS	
9:00 AM - 4:00 PM	**New Ideas for Seeding Your Solar Marketplace:** Program Pilots and Embedded Experiments	Avila A/B
10:30 AM - 12:00 PM	**Partnering with DOE National Labs**	San Simeon A/B
	Natural Allies: Training Other Professionals Who Impact the Solar Industry	Huntington A/B/C
	Recognizing Leading Solar Communities	El Capitan
	Systems Integration Vision: Challenges & Opportunities	Pacific A
	PV R&D Beyond SunShot	Pacific B
12:00 PM - 1:00 PM	Lunch	
1:00 PM - 4:00 PM	**Partnering with DOE National Labs**	San Simeon A/B
	Natural Allies: Training Other Professionals Who Impact the Solar Industry	Huntington A/B/C
	Recognizing Leading Solar Communities	El Capitan
	Systems Integration Vision: Challenges & Opportunities	Pacific A
	PV R&D Beyond SunShot	Pacific B

HEADLINING PANEL DISCUSSION

THE SUNSHOT INITIATIVE: THE FUTURE IS BRIGHT

9:30 AM to 10:30 AM | Pacific C

The future of solar energy can be bright. Solar energy is growing quickly; in certain parts of the U.S., solar is on the precipice of becoming a mainstream generation source. As solar power's costs fall, and as solar begins to reach grid parity in a few states, the industry is shifting its focus to opening new markets and to further cutting costs. But there are significant challenges to scaling up solar, and major disagreements have broken out as solar power expands. What are the challenges and disagreements? How are they playing out? How might they be resolved? With progress underway toward the 2020 SunShot affordability goal, this panel of experts will discuss solar's opportunities and challenges, across the U.S and beyond.

Moderator:

- **Jeffrey Ball**, Scholar-in-Residence, Stanford University

Speakers:

- **Craig Cornelius**, Senior Vice President of Business Development, NRG Solar
- **Joseph Desmond**, Senior Vice President of Marketing & Government Affairs, BrightSource
- **Linda Fisher**, Vice President and Chief Sustainability Officer, DuPont Safety, Health & Environment
- **Kris Mayes**, Professor, Arizona State University
- **Timothy Alan Simon, Esq.**, Consultant, Former California Public Utility Commissioner

SUNSHOT PORTFOLIO OVERVIEW

These sessions will offer a high level overview of the SunShot Initiative's project portfolio, including concurrent sessions on each individual subprogram area.

SUNSHOT INITIATIVE OVERVIEW

11:30 AM to 12:30 PM | Pacific C/D

The SunShot Initiative is a collaborative national effort launched in 2011 that aggressively drives innovation to make solar energy fully cost-competitive with traditional energy sources before the end of the decade. Through SunShot, DOE supports efforts by private companies, universities, and national laboratories to drive down the cost of solar electricity to $0.06 per kilowatt-hour (kWh). Since its launch, SunShot has funded hundreds of projects in the following areas: Photovoltaics (PV), Concentrating Solar Power (CSP), Soft Costs (or Balance of Systems Cost), Systems Integration, and Technology to Market.

Speakers:

- **Minh Le**, Director, SunShot Initiative, U.S. Department of Energy
- **Dr. Elaine Ulrich**, Acting Program Manager, Balance of Systems/Soft Costs
- **Dr. Ranga Pitchumani**, Chief Scientist & Concentrating Solar Power Program Manager; Systems Integration Acting Program Manager
- **Dr. Becca Jones-Albertus**, Program Manager, Photovoltaics
- **Dr. Lidija Sekaric**, Program Manager, Technology to Market

After a break for lunch, SunShot subprogram overview sessions will be held concurrently from 1:30 PM to 3:30 PM in separate rooms.

SUNSHOT SUBPROGRAM OVERVIEWS

SOFT COSTS

1:30 PM to 3:30 PM | Laguna A/B

While recent technological advances have drastically reduced the cost of solar hardware, the non-hardware "soft" costs—such as permitting, financing, and customer acquisition—are becoming an increasingly larger fraction of the total cost of a solar system and now constitute up to 64% of the cost of a residential system. SunShot's soft costs subprogram addresses market transparency, workforce training, local solutions, and process improvements to make solar deployment faster, easier, and cheaper. In order to support reductions in solar soft costs and uniform access to solar, the soft costs subprogram has focused on the following activity areas:

- Empowering state and local decision-makers through timely and actionable resources, peer networks, and technical assistance
- Harnessing big data, analysis and technical solutions to support the many stakeholders involved in solar deployment
- Training an innovative solar workforce to enable the solar industry to meet growing demand
- Developing solar finance and business solutions to expand access to capital and accelerate market growth

CONCENTRATING SOLAR POWER

1:30 PM to 3:30 PM | Pacific A

SunShot's concentrating solar power (CSP) subprogram focuses on technology advances and cost reduction research to enable CSP technology to take a larger role in the national energy portfolio. The CSP subprogram focuses on research and development of CSP component technologies and systems across collectors (solar field), receivers, power block (power plant) and thermal energy storage subsystems. CSP technologies use mirrors to focus and concentrate sunlight onto a receiver, from which a heat transfer fluid carries the intense thermal energy to a power block to generate electricity. A distinguishing feature of CSP is its ability to incorporate simple, efficient, and cost-effective thermal energy storage by virtue of converting sunlight to heat as an intermediate step to generating electricity. Apart from providing dispatchable power generation, CSP with thermal energy storage can also enable greater incorporation of other variable generation sources such as photovoltaics and wind on the grid. Furthermore, CSP systems can synergistically integrate with fossil-fueled power plants to offset fuel use and reduce carbon footprints. CSP, presents unique opportunities for the renewable energy space, and is a key enabling technology in the nation's all-of-the-above energy strategy.

PHOTOVOLTAICS

1:30 PM to 3:30 PM | Pacific B

SunShot's photovoltaics (PV) subprogram funds transformative PV technology research and development with the potential to yield significant cost reductions, efficiency improvements, and improved reliability standards. SunShot also supports the development of next generation PV technologies to carry innovation in solar energy beyond 2020. These advances enable lower costs, increased efficiency and improved reliability to support the widespread deployment of electricity produced directly from sunlight. The activity areas of the PV portfolio are next generation PV, training next generation researchers, advancing PV efficiency, and cross-cutting PV efforts.

SYSTEMS INTEGRATION

1:30 PM to 3:30 PM | Huntington A/B/C

SunShot's systems integration subprogram aims to dramatically increase the penetration level and enable widespread deployment of solar in the nation's electrical power system by addressing the associated technical and regulatory challenges. Considering a penetration scenario of 100 gigawatts of solar interconnected on to the nation's grid, the challenges are quantified and addressed in the thrust areas of grid performance and reliability, dispatchability, power electronics, communications, and plant performance and reliability. The systems integration subprogram funds projects at the national laboratories, industry, and universities through competitive funding solicitations that map to the five thrust areas and targets.

TECHNOLOGY TO MARKET

1:30 PM to 3:30 PM | Avila A/B

Dramatic reductions in the cost of solar will enable the high penetration deployment of solar energy technologies. It is essential then, but insufficient, to discover new materials, build first-of-a-kind devices, or identify that we must simplify PV interconnection backlogs: to have real impact, we must also transition all of these solutions to the marketplace. As a taxpayer-funded program, the SunShot Initiative also aims to create domestic jobs through commercial activity in the solar sector. The Technology To Market subprogram builds on SunShot's record of enabling groundbreaking devices and concepts in earlier stage programs with follow-on funding. Technology To Market targets two known funding gaps in bringing new technologies to market: the ones that occur at the prototype commercialization and commercial scale-up stages.

WOMEN IN SOLAR NETWORKING BREAKFAST

May 21, 7:30 AM to 8:45 AM | Laguna A

Women in Solar Breakfast, presented by the SunShot Initiative. The women of the SunShot Initiative invite you to join us for a unique opportunity for professional women in the solar community to hear our success stories and learn about opportunities for collaboration. We hope that connections made during this networking event will help strengthen the impact that women have in the solar energy industry. Our featured guest speaker will be ARPA-E (Advanced Research Projects Agency–Energy) director Dr. Cheryl Martin.

Registration for this breakfast is in addition to the Summit registration. Only those who have pre-paid the $15 fee and pre-registered will be able to participate. There will be the ability to register and pay on-site Monday, May 19 and Tuesday, May 20 if you do not register ahead of time; however, registration the morning of the breakfast will not be available.

GRAND CHALLENGE BREAKOUT SESSIONS

TRACK 1 Laguna A/B

ALL SOLAR IS LOCAL

10:45 AM to 11:45 AM

Local solar programs can dramatically change the landscape for solar deployment within a community. This program brings together three of the more innovative and forward-thinking solar programs in the country, allowing attendees to participate in a facilitated discussion with these communities in a learning network format. Attendees will have the opportunity to break into small groups and hear a five minute "pitch" from the local community followed by ten minutes of discussion. Participants will have time to rotate through all three presentations. At the end of the session, everyone will come back together in plenary and the communities will summarize what attendees thought was interesting, where there were challenges and also identify opportunities to replicate similar programs in other communities.

Speakers:

- **Laura Sanchez-Rivét**, Co-Founder, New Mexico Green Chamber of Commerce
- **Jason Caudle**, Deputy City Manager, City of Lancaster, CA
- **Mary Leslie**, President, Los Angeles Business Council

THE NEW SCIENCE OF SOFT COSTS: TUTORIALS IN BIG DATA, SOCIAL PHYSICS, AND RANDOMIZED PILOTS

1:15 PM to 2:15 PM

Solar non-hardware costs – the aggregation of all the time, effort, and fees expended while dealing with myriad people and processes – are now the greatest barrier to achieving national SunShot price and deployment targets. This "soft cost" challenge is nothing new; the sciences of innovation diffusion and market transformation have a rich tradition of seeding innovative programs that make energy technologies cheaper, faster, and easier to adopt. The advent of big data, predictive tools, and controlled field experiments has the potential to present a better solution set. This new science could be a game changer for how solar practitioners approach soft cost reduction. In this breakout session, the state of the art in soft cost science will be presented and open questions about the future of the science will be discussed.

Speakers:

- **Bryan Bollinger**, Assistant Professor of Marketing at New York University Stern School of Business
- **Dena Gromet**, Postdoctoral Research Fellow, Risk Management and Decision Processes Center, The Wharton School, University of Pennsylvania
- **Varun Rai**, Assistant Professor, LBJ School of Public Affairs, University of Texas at Austin
- **Kim Wolske**, Research Management Fellow, Erb Institute for Global Sustainable Enterprise, University of Michigan

---

THE NEXT FRONTIER FOR SOLAR DEPLOYMENT: THE MID-SIZE MARKET

2:30 PM to 3:30 PM

With falling costs, continued process standardization, and available financial incentives, the U.S. solar market, generally classified into residential, commercial, and utility sectors, has witnessed tremendous growth over the last few years. Tremendous diversity exists among end-users that fall within the commercial segment, or the mid-size solar market. System sizes can range from approximately 20kW to 2MW, and technology hosts can include commercial properties, multi-unit residential buildings, industrial entities, distributed wholesale generators, and shared solar projects. Development in the mid-size market will facilitate increased consumer access to the benefits of solar electricity while helping to reach deployment goals. What are game-changers that would unleash the economic potential embodied in the mid-solar sector? What barriers that inhibit this segment of the market? How can utilities enable growth in this market? This session will explore these questions, as well as a short-term vision for the market.

Speakers:

- **Ben Foster**, Senior Vice President, Optony, Inc.
- **Drew Torbin**, Vice President of Renewable Energy, Prologis, Inc.
- **Scott Sarem**, CEO, Co-Founder, Everyday Energy

TRACK 2 — Avila A/B

OPEN INNOVATION: SUNSHOT CATALYST & NEXT GENERATION GOVERNMENT PRIZES

10:45 AM to 11:45 AM

Crowdsourcing, hackathons and local business accelerators are creating unprecedented opportunities for a new generation of problem solvers and entrepreneurs who rapidly create transformative economic change and social impact. The federal government has taken notice of growing market mechanisms that are shaping the next waves of innovation and sought to unleash the potential of social entrepreneurs with prizes, challenges, and open data. Join us for the official launch of a new SunShot prize challenge and hear from change makers in government and industry about the importance of government prize competitions in cultivating a thriving ecosystem for America's clean energy economy.

Moderator:

- **Cristin Dorgelo**, Assistant Director for Grand Challenges, White House Office of Science and Technology Policy

Speakers:

- **Jenn Gustetic**, Program Executive for Prizes and Challenges, National Aeronautics and Space Administration
- **Don Wood**, Venture Partner, Draper Fisher Jurvetson
- **Aaron Fyke**, President, Edisun, Inc.

BUSINESS INNOVATION IN SOLAR: THRIVING BEYOND INCENTIVES

1:15 PM to 2:15 PM

The solar energy industry has been one of the fastest growing industries in the U.S. over the last five years. In 2013, a solar project was installed every four minutes in America. This unprecedented deployment growth has been driven, in part, by incentive-based financial innovation; namely, third-party power purchase agreements. But are such creative business models adaptable enough to overcome challenges the industry faces after federal and state solar incentives expire? Join us to discuss SunShot's 2020 goals, and how collaboration with the solar industry on business innovation could help deliver incentive-free, cost-competitive, sustainable solar power generation before the end of the decade.

Moderator:

- **Shayle Kann**, Senior Vice President, GTM Research

Speakers:

- **Francisco DeVries**, President and CEO, Renewable Funding LLC
- **Sarah Ham**, Associate, DBL Investors
- **Bert Hunter**, Chief Investment Officer, Clean Energy Finance and Investment Authority
- **Tim Newell**, Vice President of Financial Products, Solar City
- **Jeff Weiss**, Co-Chairman & Managing Director, Distributed Sun

SOLAR SECURITIZATION: OPPORTUNITIES AND CHALLENGES

2:30 PM to 3:30 PM

The U.S. solar industry is soaring – deployment has increased tenfold in six years. But despite this growth, low cost solar financing remains a major market barrier to rapid deployment. The structural foundations for solar financing are now advancing rapidly, as the SunShot Initiative works to convene and cultivate progress within the solar industry. Moderated by solar securitization expert Michael Mendelsohn from the National Renewable Energy Laboratory, this panel discussion will explore U.S. market challenges and opportunities for expanding the pools of investors in solar deployments through proven financial instruments such as asset-backed securities, collateralized loan obligations, and project bonds.

Moderator:

- **Michael Mendelsohn**, Senior Financial Analyst, National Renewable Energy Laboratory

Speakers:

- **Dr. Kevin R. Lang**, Director, Solar Generation, Leidos Engineering
- **Melanie J. Gnazzo**, Partner, Asset Securitization, Lease Finance and Tax, Chapman and Cutler LLP
- **Jorge Vargas**, Vice President, Morgan Stanley

TRACK 3 — Pacific A

DISRUPTIVE SOLAR TECHNOLOGIES: FRONTIERS IN NEW MATERIALS AND APPROACHES

10:45 AM to 11:45 AM

Disruptive solar technologies entering the PV and CSP landscape today hold the potential to greatly impact the future of solar energy conversion. This session will highlight new techniques, processes, materials, and 'game changing' revelations over the last several years, while also exploring the major obstacles to commercialization. Three speakers will provide fifteen minute presentations on promising areas such as combinatorial materials synthesis, perovskites for photovoltaics, inverse design, and photon enhanced thermionics.

Speakers:

- **Jonathan Spanier**, Professor of Materials Science & Engineering, Drexel University
- **Alex Zunger**, Professor, Office of the Vice Chancellor for Research, University of Colorado
- **Nicholas Melosh**, Professor of Materials Science & Engineering, Stanford University

THE FUTURE OF CSP: CHALLENGES AND OPPORTUNITIES

1:15 PM to 3:30 PM

2013 was a big comeback year for CSP in the United States with the commissioning of the Abengoa Solana plant, the first sync of the BrightSource Energy Ivanpah plant, and other major plants well along in their schedules. CSP is experiencing a true renaissance moment in the United States. In this session, expert panelists will address the challenges and opportunities for CSP in

both domestic and international markets. Representatives from industry, utilities, and energy commissions will offer perspectives on key issues such as: permitting, financing, competitiveness with traditional fuels, and upcoming market opportunities.

Speakers:

- **David Hochschild**, Commissioner, California Energy Commission
- **John Candelaria**, Policy Director, Public Utility Commission of Nevada
- **Marc Romito**, Manager Renewable Energy Programs, Arizona Public Service
- **Hank Price**, Chief Technical Officer, Abengoa Solar
- **Joe Desmond**, Senior Vice President of Marketing and Government Affairs, BrightSource Energy
- **Kevin Smith**, Chief Executive Officer, SolarReserve
- **Buck Martinez**, Senior Director Project Development, Florida Power & Light
- **Rick Huibregtse**, Senior Vice President of Engineering, eSolar

TRACK 4 — Pacific B

BRINGING SOLUTIONS TO THE SOLAR INDUSTRY: STARTUPS, TECHNOLOGY DEVELOPMENT AND MARKET ENTRY

10:45 AM to 11:45 AM

New products and solutions must overcome numerous challenges and seamlessly navigate various phases on the maturation path to market success. This panel will examine challenges to scaling up, meeting capital requirements, and finding and acquiring customers. The session will also explore potential paths for new products and solutions, such as startup ventures, technology transfer to any size business, corporate funded research and development, or strategic acquisition.

Moderator:

- **Dr. Cheryl Martin**, Acting Director, Advanced Research Projects Agency-Energy (ARPA-E)

Speakers:

- **Dr. Thomas Earnest**, Global Market Development Manager, DuPont Photovoltaic Solutions
- **Dr. Karina Edmonds**, Executive Director for Institute Corporate Relations, California Institute of Technology
- **Joshua Posamentier**, Principal, Prelude Ventures
- **Gary Wayne**, Principal, Solar Design Platform, Sunrun

A LOOK AHEAD: PV MANUFACTURING IN 10 YEARS

1:15 PM to 2:15 PM

The global PV manufacturing landscape has undergone significant changes in the past decade, from geographic and economic changes in the supply chain to a significant increase in PV module production by fewer manufacturers. The lessons learned over the last decade will guide the future of this growing industry. This session will explore the future of PV manufacturing over the

next 5 to 10 years, both domestic and abroad. Expert panelists will provide their insights and perspectives across three thematic areas: a vision of PV manufacturing, including the level of integration and the factory of the future; value-adding attributes of PV products; and the geographic concentration of PV manufacturing.

Moderator:

- **Mark Johnson**, Director, Advanced Manufacturing Office, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy

Speakers:

- **Raffi Garabedian**, Chief Technology Officer, First Solar
- **Ethan Good**, Director, Solar Materials Research and Development, SunEdison
- **Brad Mattson**, Chief Executive Officer, Siva Power
- **Charlie Gay**, Founder, Managing Director, Greenstar Foundation
- **J. Craig Hunter**, Co-Founder and Managing Director, Innoscovery

GETTING IN THE LOOP: PV HARDWARE RECYCLING AND SUSTAINABILITY

2:30 PM to 3:30 PM

As PV system installations continue to ramp up across the United States, the process for handling used and expired PV modules in the next 20-30 years would benefit from serious planning and forethought. This session will explore the major issues related to developing and establishing an operational recycling program for PV modules in the U.S. The discussion will also address key areas of interest: the current status of PV recycling in the U.S. and abroad; value of PV recycling; challenges and barriers to developing PV recycling programs; and lessons learned from related industry-specific recycling efforts.

Speakers:

- **Eric Masanet**, Morris E. Fine Junior Professor, Northwestern University
- **Sukhwant Raju**, Director of Recycling, First Solar
- **Garvin Heath**, Senior Scientist, NREL Strategic Energy Analysis Center

TRACK 5

Huntington A/B/C

SOLAR AS A BASE LOAD POWER SOURCE

10:45 AM to 11:45 AM

Does solar have a future as a base load electricity source? This session explores a vision in which solar power plants can provide dispatchability, predictability, and reliability comparable to conventional generation, while offering affordable electricity for consumers. Panelists will address the possible configuration, components, and performance characteristics of such a plant, including the roles of energy storage and load response for both grid-scale and aggregated distributed-scale solar projects.

Moderator:

- **Steven Chalk**, Deputy Assistant Secretary for Renewable Energy, U.S. Department of Energy

Speakers:

- **Mark Rothleder**, Vice President, California ISO
- **Tony Tewelis**, Director, Technology Innovation, Arizona Public Service
- **Hank Price**, Chief Technology Officer, Abengoa Solar
- **Guy Slicker**, Director of Clean Energy Technology, New York Power Authority

SOLAR IN THE CONNECTED BUILDING

1:15 PM to 2:15 PM

This session will explore the technologies, processes, and policies needed for interconnection and integrated operation of solar power at any penetration level. Panelists will discuss the optimization and technology needs in order for solar power to interconnect and operate sustainably. Join us to explore the pathways through which solar penetration can be optimized across various environments, including integration with loads and other power sources at the building and microgrid levels.

Moderator:

- **Dr. Abraham Ellis**, Lead for PV Systems Integration, Sandia National Laboratories

Speakers:

- **Byron Washom**, Director of Strategic Energy Initiatives, University of California-San Diego
- **Dr. Mohammad Shahidehpour**, Director, Robert W. Galvin Center for Electricity Innovation, Illinois Institute of Technology
- **The Honorable Jeanne Fox**, Commissioner, New Jersey Board of Public Utilities
- **David Parsons**, Economist, Hawaii Public Utilities Commission

THE SUNSHOT APPROACH: HOW A FUNDING OPPORTUNITY IS BORN AND MANAGED

2:30 PM to 3:30 PM

The SunShot Initiative drives research, manufacturing, and market solutions and supports innovative efforts by private companies, universities, and national laboratories to drive down the cost of solar electricity to the SunShot target by reducing solar technology costs, reducing grid integration costs, and accelerating solar deployment nationwide. This session is an opportunity to educate potential and current awardees on SunShot's goals and expectations and field questions on how most effectively to interact with SunShot. During this session, SunShot staff will explain how the SunShot team develops funding opportunity concepts, walk through the merit review process for proposals and applications, provide guidance for writing effective "Statements of Project Objectives," and describe how SunShot's active program management process works.

Speakers:

- **Levi Irwin**, Technology Development Manager, Solar Energy Technologies Office (On contract from ManTech International Corporation)
- **Dr. Marie K. Mapes**, Technology Manager, Solar Energy Technologies Office

TRACK 6 — San Simeon A/B

LOOKING FORWARD: THE SOLAR MARKET IN 2040

10:45 AM to 11:45 AM

Join us to envision what solar technologies will compose the marketplace in 25 years. Will silicon PV still dominate, or will other technologies become more prominent? How much differentiation by sector segment will we see? Panelists will discuss their vision for the future of solar technology, as well as how this vision should affect research and development investments made today.

Speakers:

- **Atiye Bayman**, Chief Technology Officer, Miasole
- **Tonio Buonassisi**, Associate Professor, MIT
- **Cliff Ho**, Distinguished Member of the Technical Staff, Sandia National Laboratories
- **Christiana Honsberg**, Professor, Arizona State University
- **Greg Wilson**, Director, National Center for Photovoltaics, NREL

PITCH FOR SOLAR

1:15 PM to 3:30 PM

As the hardware costs of solar have decreased significantly over the last decade, the non-hardware "soft costs" of solar – like permitting, installation, financing, and grid integration, among others – remain a major barrier to greater solar deployment in the U.S. and make up an increasingly larger fraction of the total cost of a solar energy system. SunShot invites big thinkers, entrepreneurs, and innovators to share their big ideas to help address the challenges to greater solar deployment. At this session, pre-selected participants will have the opportunity to make five-minute business pitch presentations to an expert panel of judges and receive valuable feedback on their idea.

The business pitches will focus on making solar deployment easier, cheaper and faster. Areas of interest include: expediting customer acquisition; reducing financing costs/increase access to capital; reducing installation costs while retaining quality; reducing costs and process time for permitting and inspection; reducing grid integration risks; streamlining regulatory processes, or "wild cards" for the next big idea in solar energy.

INDUSTRY WORKSHOPS

Workshops will be held on Thursday May 22, from 10:30 AM to 4:00 PM with a break for lunch.

PARTNERING WITH DOE NATIONAL LABORATORIES

San Simeon A/B

The Energy Department's national labs welcome partnerships with industry, government, academia, small businesses, and nonprofits. This workshop will showcase the unique capabilities of the national labs and identify how they can be harnessed to achieve technical breakthroughs. A panel of representatives from the national labs will describe their respective lab's core strengths and capabilities, and opportunities and accessibility to collaborate and work with industry to tackle challenges in solar energy. Following each of the presentations, panel members will field audience questions.

NEW IDEAS FOR SEEDING YOUR SOLAR MARKETPLACE: PROGRAM PILOTS & EMBEDDED EXPERIMENTS

*9:00 AM - 4:00 PM | Avila A/B

Solar installers, utilities, non-profit groups, and policymakers are charged with creating on-the-ground solar programs. A new set of tools, developed by social scientists and strengthened with the availability of data with astounding depth and breadth, can now be applied to make energy programs better: more effective, flexible, and affordable. Data-driven, low-cost, real-time embedded evaluation is solving some of the nation's largest energy challenges, from changing consumer behavior to ramping up adoption of new technology. Solar decision makers, in partnership with top researchers, have an opportunity to advance and apply this new science. In this interactive workshop, some of the most stubborn soft cost challenges will be confronted, and creative methods for tackling them will be devised. First, solar practitioners will pose their most difficult open questions related to customer acquisition, permitting, incentives, and other soft costs. Next, scientists will introduce the progress they're making at probing these questions via modeling and field experimentation. Working groups will then devise and pitch programs and policies that embed state-of-the- art rapid iteration. The workshop goals are for program implementers to gain a new set of tools, for researchers to discover the next big questions, and for both groups to form new partnerships.

NATURAL ALLIES: TRAINING OTHER PROFESSIONAL WHO IMPACT THE SOLAR INDUSTRY

Huntington A/B/C

Every solar installation involves professional designers, installers and laborers. But what about other industries and professionals who affect the success the overall life-cycle cost of a photovoltaic (PV) installation and its transaction value over time? These "allies" can include professionals such as: bankers; insurance brokers; real estate brokers and appraisers; building and electrical inspectors; zoning board members; state and local regulators; electric utility professionals and others.

This engaging workshop is an opportunity for SunShot to gather perspectives from stakeholders on critical questions about DOE's role in supporting workforce education, interaction, tool development and training for natural ally professionals and solar-related professionals. This workshop will identify the solar ally professions, what they need in workforce training, how they learn and

train their members, and whether DOE can provide tools and training that removes barriers and encourages solar development and support from the identified ally professions. The workshop will include participants with particular expertise in workforce development and training who will provide their insights. This short workshop is fully interactive, and will provide insights that build toward a potential FY15 workforce funding opportunity from SunShot.

RECOGNIZING LEADING SOLAR COMMUNITIES

El Capitan

As a follow up to a recent SunShot request for information, SunShot seeks additional input from the solar community on the design and implementation of a solar recognition program for communities who are making it faster, easier, and cheaper to go solar. Participants will have the opportunity to provide input on program administration and design; the most relevant and useful criteria to use for assessing recognition-worthiness; successful marketing of the program; moving beyond communities to recognize additional solar stakeholders (e.g., utilities, installers, financial institutions); and maintaining program sustainability and relevance. This workshop will be highly interactive and will include a mix of speakers and breakout sessions.

SYSTEMS INTEGRATION VISION: CHALLENGES & OPPORTUNITIES

Pacific A

Even after achieving the SunShot Initiative's cost targets for solar energy, successful systems integration will remain as the key barrier to enable significantly higher levels of penetration and growth in solar power generation. To fully realize the SunShot goals, it is critical to address the challenges to successful integration of solar generation into the power grid (both transmission and distribution). SunShot's Systems Integration (SI) subprogram has developed a vision and action plan with quantifiable metrics to fulfill SunShot's goals. This workshop will solicit stakeholder feedback on the SI vision and associated metrics and will feature presentations from the SunShot team on various aspects of the SI program and currently funded projects. Via moderated sessions, members of the SunShot team will walk through the SI vision, and engage in discussion with the audience to obtain detailed feedback on how to address the needs of the industry in enabling higher penetration of solar, suitability of the projects being funded, significant gaps that are not addressed by the SI subprogram, and suggestions for a possible re-focus of SunShot's systems integration efforts.

PHOTOVOLTAICS RESEARCH AND DEVELOPMENT BEYOND SUNSHOT

Pacific B

This workshop will bring together leaders in the field to explore the opportunities and challenges for research and development in PV after the SunShot goal has been achieved. The goal of SunShot Initiative is to make solar energy cost-competitive with other forms of electricity by the end of the decade – specifically, to reach an installed, unsubsidized price of $0.06 per kilowatt hour ($1/W) for utility-scale systems.

The PV R&D Beyond SunShot workshop will include short primer talks on the future of the PV market and PV technology, followed by small and large group discussion. Discussion will explore questions on the key challenges for PV beyond the SunShot Initiative goal; new materials and devices that may be required to address these challenges; the critical challenges and opportunities specific to different material technologies; and needs for new expertise in PV R&D.

Notes

Notes

TECHNOLOGY FORUM

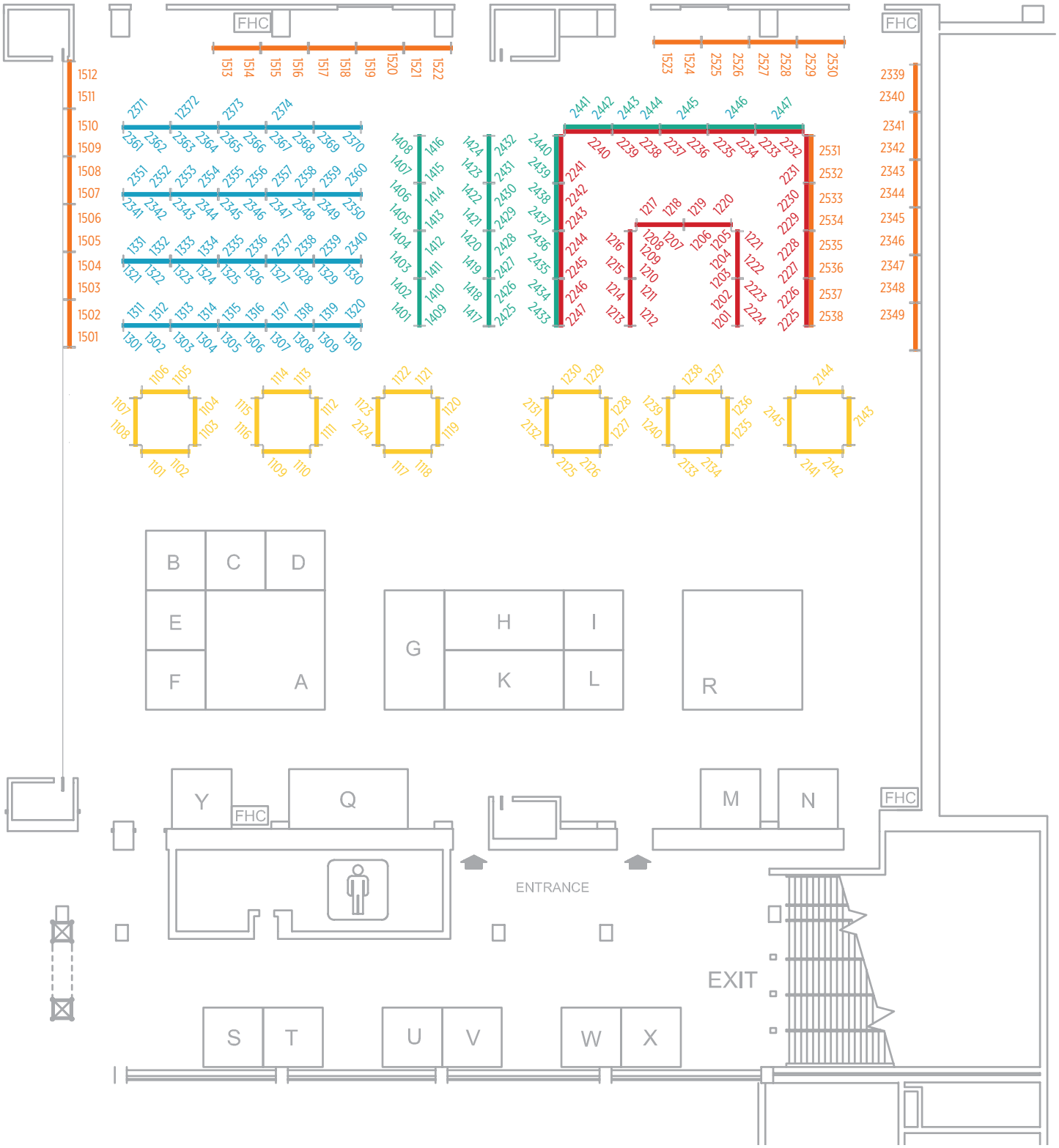
The 2014 SunShot Grand Challenge Summit and Peer Review is hosting a Technology Forum showcasing innovative and cutting-edge technologies that are helping to drive down the cost of solar energy. The Forum features a wide range of solar industry exhibitors showcasing software and hardware products and solutions, as well as nearly 300 SunShot awardees displaying their work and answering questions about their projects.

TECHNOLOGY FORUM HOURS

- May 19 from 4:00-7:00 PM
- May 20 from 4:00-7:00 PM
- May 21 from 4:00-7:00 PM

EXHIBITS	
Booth ID	**Exhibitor**
B	Bay Area Photovoltaic Consortium
R	Brittmore Group LLC
T	Cascade Engineering and Patriot Solar
U	Enabling High-Penetration PV with Smart Inverters
N	General Electric Global Research Center
C	National Renewable Energy Laboratory — Balance of Systems Team
I	National Renewable Energy Laboratory — Energy Systems Integration Facility (ESIF)
G	National Renewable Energy Laboratory — National Center for Photovoltaics
S	Regional Test Centers
H	Sandia National Laboratories
V	Soft Cost Tools for Solar Deployment
Y	Solar Energy Institute
Q	Solar Instructor Training Network
E	Solar Utility Network Deployment Acceleration (SUNDA)
L	Southern California Edison
A	SunShot City and Innovation Alley
X	SunShot: Ask Your Contracting Officer and Technology Project Officer
W	SunShot HiPen Award Showcase
M	Terrafore Technologies — Phase Change Thermal Storage
K	United States Photovoltaic Manufacturing Consortium (PVMC)
F	University of Arizona
D	Virginia Tech

- Photovoltaics
- Technology to Market
- Systems Integration
- Soft Costs
- Concentrating Solar Power


FHC
FHC
FHC
ENTRANCE
EXIT
A
B
C
D
E
F
G
H
I
K
L
R
Y
Q
M
N
S
T
U
V
W
X

SunShot Awardee Posters		
Team	Poster number	Awardee
BOS	1101	Electric Power Research Institute Inc.
BOS	1102	Electricore Inc.
BOS	1103	Interstate Renewable Energy Council
BOS	1104	Missouri University of Science & Technology
BOS	1105	University of Central Florida
BOS	1106	Lawrence Berkeley National Laboratory (Hoen)
BOS	1107	National Renewable Energy Laboratory (Heath)
BOS	1108	National Renewable Energy Laboratory (Mendelsohn)
BOS	1109	Sandia National Laboratory (Klise)
BOS	1110	Broward County, Florida
BOS	1111	California Center for Sustainable Energy
BOS	1112	City University of New York
BOS	1113	Clean Energy States Alliance
BOS	1114	Iowa Economic Development Authority
BOS	1115	Mid-America Regional Council - MARC
BOS	1116	Optony Inc.
BOS	1117	Washington State Department of Commerce
BOS	1118	Boise State University
BOS	1119	Clean Power Finance
BOS	1120	Hawaii Department of Business
BOS	1121	ICLEI - Local Governments for Sustainability
BOS	1121	ICLEI - Local Governments for Sustainability 2
BOS	1122	International City/County Management Association - ICMA
BOS	1122	International City/County Management Association - ICMA 2
BOS	1123	Argonne National Lab (Hamada)
CSP	1201	Abengoa Solar
CSP	1202	General Atomics
CSP	1203	Argonne National Laboratory (Singh)
CSP	1204	Los Alamos National Laboratory (Obrey)
CSP	1205	National Renewable Energy Laboratory (Gomez)
CSP	1206	National Renewable Energy Laboratory (Kutscher)
CSP	1207	National Renewable Energy Laboratory (Neises)
CSP	1208	Oak Ridge National Laboratory (Hunter)
CSP	1209	Sandia National Laboratories (Andraka)
CSP	1210	University of Arizona
CSP	1211	University of California
CSP	1212	GE Global Research
CSP	1213	National Renewable Energy Laboratory
CSP	1214	Abengoa Solar

SunShot Awardee Posters		
Team	Poster number	Awardee
CSP	1215	Boston University
CSP	1216	BrightSource
CSP	1217	Jet Propulsion Laboratory
CSP	1218	Massachusetts Institute of Technology
CSP	1219	Pennsylvania State University
CSP	1220	Southwest Research Institute
CSP	1221	Southwest Research Institute
CSP	1222	University of Arizona
PV	1301	Sandia National Laboratories
PV	1302	SLAC - The Leland Stanford Junior University
PV	1303	University Of Illinois
PV	1304	University Of Texas, El Paso
PV	1305	Arizona State University
PV	1306	Colorado State University
PV	1307	National Renewable Energy Laboratory
PV	1308	National Renewable Energy Laboratory
PV	1309	Oak Ridge National Laboratory
PV	1310	Old Dominion University Research Foundation
PV	1311	University Of Delaware
PV	1312	University Of Delaware
PV	1313	University Of Delaware
PV	1314	University Of Delaware
PV	1315	University Of Illinois
PV	1316	University Of South Florida
PV	1317	Arizona State University
PV	1318	Georgia Tech University
PV	1319	National Renewable Energy Laboratory (Emery)
PV	1320	National Renewable Energy Laboratory (Friedman)
PV	1321	National Renewable Energy Laboratory (Ginley)
PV	1322	National Renewable Energy Laboratory (Keyes)
PV	1323	National Renewable Energy Laboratory (Levi)
PV	1324	National Renewable Energy Laboratory (Olson)
PV	1325	National Renewable Energy Laboratory (PTAK)
PV	1326	National Renewable Energy Laboratory (Stradins)
PV	1327	National Renewable Energy Laboratory (VanSant)
PV	1328	National Renewable Energy Laboratory Director's Initiative (Wilson)
PV	1329	Leland Stanford Junior University
PV	1330	University Of Michigan

SunShot Awardee Posters		
Team	Poster number	Awardee
PV	1331	Princeton University
PV	1332	University Of California, Irvine
PV	1333	University Of California, Los Angeles
PV	1334	National Renewable Energy Laboratory
SI	1401	Cascade Engineering
SI	1402	GE Global Research
SI	1403	Georgia Tech Applied Research Corporation
SI	1404	Solexel
SI	1405	University of Texas, San Antonio
SI	1406	Arizona Public Service
SI	1407	Florida State University
SI	1408	National Renewable Energy Laboratory (SCE)
SI	1409	Virginia Polytechnic Institute & State University
SI	1410	National Renewable Energy Laboratory (Blair - PPR)
SI	1411	National Renewable Energy Laboratory (Coddington)
SI	1412	National Renewable Energy Laboratory (Margolis)
SI	1413	National Renewable Energy Laboratory (Marion - PPR)
SI	1414	National Renewable Energy Laboratory (Sengupta A)
SI	1415	National Renewable Energy Laboratory (Sengupta B)
SI	1416	Sandia National Laboratories (Ellis/Byrne)
SI	1417	Sandia National Laboratories (King A PPR)
SI	1418	Sandia National Laboratories (King B PPR)
SI	1419	Sandia National Laboratories (King C PPR)
SI	1420	Sandia National Laboratories (Sorenson)
SI	1421	Howard University, Inc.
SI	1422	IBM
SI	1423	National Oceanic and Atmospheric Administration
SI	1424	National Center For Atmospheric Research
T2M	1501	Applied Novel Devices, Inc.
T2M	1502	CelLink Corporation
T2M	1503	Clean Power Research
T2M	1504	EnergySage
T2M	1505	Folsom Labs
T2M	1506	Genability
T2M	1507	Geostellar
T2M	1508	Infinite Invention, LLC
T2M	1509	Silicon Solar Solutions
T2M	1510	Simply Civic
T2M	1511	SineWatts

SunShot Awardee Posters		
Team	Poster number	Awardee
T2M	1512	SMASHsolar
T2M	1513	Solar Census, LLC
T2M	1514	Sun Number
T2M	1515	Sunrun
T2M	1516	National Renewable Energy Laboratory (Goodrich)
T2M	1517	Applied Materials Inc.
T2M	1518	PPG Industries Inc.
T2M	1519	Stanford and University of California-Berkeley
T2M	1520	PVMC Inc.
T2M	1521	College of NanoScale Science and Engineering, State University of New York
T2M	1522	PPG Industries Inc.
T2M	1523	SolarWorld Industries America Inc.
T2M	1524	Suniva Inc.
BOS	2124	Lawrence Berkeley National Laboratory (Barbose)
BOS	2125	Lawrence Berkeley National Laboratory (Wiser)
BOS	2126	National Renewable Energy Laboratory (Doris)
BOS	2127	National Renewable Energy Laboratory (Margolis)
BOS	2128	National Renewable Energy Laboratory (Truitt)
BOS	2129	National Renewable Energy Laboratory (Young)
BOS	2130	Sandia National Laboratory (Dwyer)
BOS	2131	Sandia National Laboratory (Ho)
BOS	2132	Sandia National Laboratory (Klise)
BOS	2133	Massachusetts Institute of Technology
BOS	2134	National Renewable Energy Laboratory (Drury)
BOS	2135	Sandia National Laboratories
BOS	2136	SRI International
BOS	2137	University of North Carolina, Charlotte
BOS	2138	University of Texas, Austin
BOS	2139	Yale University
BOS	2140	Interstate Renewable Energy Council (IREC)
BOS	2141	Illinois State University
BOS	2142	Interstate Renewable Energy Council (IREC)
BOS	2143	Rocky Mountain Institute
BOS	2144	National Rural Electric Cooperative Association (NRECA)
BOS	2145	Argonne National Laboratory (Sullivan)
CSP	2223	University Of Colorado
CSP	2224	Colorado School of Mines
CSP	2225	Pacific Northwest National Laboratory

SunShot Awardee Posters		
Team	Poster number	Awardee
CSP	2226	Sandia National Laboratories
CSP	2227	Southern Research Institute
CSP	2228	University of California, Los Angeles
CSP	2229	University of Florida
CSP	2230	Sacramento Municipal Utility District (SMUD)
CSP	2231	National Renewable Energy Laboratory (Wagner)
CSP	2232	Sandia National Laboratories (Ghanbari)
CSP	2233	Sandia National Laboratories (Pacheco)
CSP	2234	Savannah River National Laboratory (Garcia-Diaz)
CSP	2235	Savannah River National Laboratory (Zidan)
CSP	2236	University Of Texas at El Paso
CSP	2237	Brayton Energy
CSP	2238	National Renewable Energy Laboratory
CSP	2239	Oregon State University
CSP	2240	Pacific Northwest National Laboratory
CSP	2241	San Diego State University
CSP	2242	Sandia National Laboratories
CSP	2243	SLAC National Accelerator Laboratory
CSP	2244	University of California
CSP	2245	Norwich Technologies
CSP	2246	Timothy Davenport
CSP	2247	University of Alabama
PV	2335	Arizona State University
PV	2336	Lawrence Livermore National Laboratory
PV	2337	National Renewable Energy Laboratory
PV	2338	Plant PV, Inc.
PV	2339	SLAC- Leland Stanford Junior University
PV	2340	University Of Oregon
PV	2341	University Of Utah
PV	2342	Delaware State University
PV	2343	Georgia Institute of Technology
PV	2344	North Carolina State University
PV	2345	National Renewable Energy Laboratory
PV	2346	Ohio State University
PV	2347	IBM
PV	2348	National Renewable Energy Laboratory
PV	2349	National Renewable Energy Laboratory (Noufi A)
PV	2350	National Renewable Energy Laboratory (Noufi B)
PV	2351	National Renewable Energy Laboratory (Repins)

SunShot Awardee Posters		
Team	Poster number	Awardee
PV	2352	National Renewable Energy Laboratory (Zakutayez)
PV	2353	Norfolk State University
PV	2354	North Carolina Central University
PV	2355	University of New Mexico
PV	2356	Massachusetts Institute Of Technology
PV	2357	University Of California
PV	2358	University Of Minnesota
PV	2359	Colorado School Of Mines
PV	2360	University of Chicago
PV	2361	University of Delaware
PV	2362	University of Washington
PV	2363	Arizona State University
PV	2364	Stanford University
PV	2365	Arizona State University and Partners
PV	2366	Chulmin Choi
PV	2367	Diane Sellers
PV	2368	Jeffrey Rinehart
PV	2369	Shannon Riha
PV	2370	Bandgap Engineering
PV	2371	Benjamin Klahr
PV	2372	Edward Barnard
PV	2373	James McKone
PV	2374	Rafael Jaramillo
SI	2425	National Renewable Energy Laboratory (Kurtz - PPR)
SI	2426	National Renewable Energy Laboratory (O'Neill)
SI	2427	National Renewable Energy Laboratory (O'Neill)
SI	2428	National Renewable Energy Laboratory (Wohlgemuth A PPR)
SI	2429	National Renewable Energy Laboratory (Wohlgemuth B PPR)
SI	2430	Sandia National Laboratories (Broderick)
SI	2431	Sandia National Laboratories (Gonzalez/Neely)
SI	2432	Sandia National Laboratories (Hansen)
SI	2433	Fraunhofer Center for Sustainable Energy Systems
SI	2434	North Carolina State University
SI	2435	Sandia National Laboratories
SI	2436	Sandia National Laboratories & National Renewable Energy Laboratory PPR
SI	2437	Advanced Energy
SI	2438	Alencon, LLC
SI	2439	Electric Power Research Institute (EPRI)

SunShot Awardee Posters		
Team	**Poster number**	**Awardee**
SI	2440	GE Global Research
SI	2441	SolarBridge Technologies
SI	2442	University of Hawaii
SI	2443	AWS Truepower
SI	2444	Clean Power Research
SI	2445	Electric Power Research Institute (EPRI)
SI	2446	Electricore, Inc
SI	2447	Hawaiian Electric Power Company (HECO)
SI	2448	PHI Holdings Inc. (PEPCO)
SI	2449	University of California, San Diego
T2M	2525	Mosaic
T2M	2526	Rehnu
T2M	2527	Solaflect
T2M	2528	Stion
T2M	2529	Brittmore Group, LLC
T2M	2530	Demeter Power Group
T2M	2531	kWh Analytics
T2M	2532	Renewable Power Conversion
T2M	2533	SolarNexus, Inc.
T2M	2534	3M Company
T2M	2535	Brittmore Group, LLC
T2M	2536	Lucintech, LLC
T2M	2537	MicroXact, Inc.
T2M	2538	Next Energy Technologies, Inc.
T2M	2539	Sporian Microsystems, Inc.
T2M	2540	Tau Sciences Corporation
T2M	2541	Solaria Corporation
T2M	2542	1366 Technologies
T2M	2543	Soitec Solar Industries
T2M	2544	Solar Junction
T2M	2545	Central Technological Corporation
T2M	2546	Direct Solar, LLC
T2M	2547	Sinton Instruments
T2M	2548	Terrajoule Corporation
T2M	2549	TIAX, LLC

Headlining Speaker Biographies

DR. DAN ARVIZU

Director, National Renewable Energy Laboratory

Dr. Dan Arvizu is the Director of the National Renewable Energy Laboratory, the U.S. Department of Energy's primary laboratory for energy efficiency and renewable energy research and development. He was a chief technology officer with CH2M HILL Companies, Ltd., an executive with Sandia National Laboratories, and started his career at the AT&T Bell Telephone Laboratories.

In 2011, Dr. Arvizu was appointed by President Obama to a second six-year term on the National Science Board, the governing board of the National Science Foundation and the national science policy advisory body to the President and the Congress. He is presently serving as Chairman. Dr. Arvizu serves on a number of boards, panels and advisory committees including the American Council on Renewable Energy Advisory Board, the Singapore Energy International Advisory Panel, the Colorado Renewable Energy Authority Board of Directors, the Stanford Precourt Institute for Energy Advisory Council, and is Fellow of the National Academy of Public Administration.

He has a B.S. in mechanical engineering from New Mexico State University and a M.S. and Ph.D. in mechanical engineering from Stanford University.

He is scheduled to give a keynote address at 9:40 AM on Wednesday.

JEFFREY BALL

Scholar-in-Residence, Stanford University

Jeffrey Ball is scholar-in-residence at Stanford University's Steyer-Taylor Center for Energy Policy and Finance. He writes a *New Republic* column on energy and the environment, Resources, that appears biweekly at TNR.com. He came to Stanford in 2011 from *The Wall Street Journal*, where he was environment editor and spent more than decade writing about energy and the environment. Since then, his writing has been published by *Foreign Affairs, The New Republic, Slate* and *The Wall Street Journal*, among others. Stanford's Steyer-Taylor Center is a joint initiative of the law and business schools. Ball heads a project exploring how China and the U.S. might deploy clean energy more economically efficiently if each played to its comparative advantages. The project focuses on the solar industry. Ball speaks often about energy and environmental issues, including as a Woodrow Wilson Visiting Fellow. He majored in history at Yale University. Follow him on Twitter @jeff_ball.

He is scheduled to moderate the headlining panel discussion, The SunShot Initiative: The Future is Bright, at 9:30 AM on Tuesday.

STEVEN CHALK

Deputy Assistant Secretary for Renewable Energy, U.S. Department of Energy

In his role as Deputy Assistant Secretary for Renewable Energy in the Office of Energy Efficiency and Renewable Energy (EERE), Steven Chalk oversees applied research, development, and demonstration for a diverse clean energy portfolio. This portfolio spans wind, solar, geothermal, conventional hydropower, marine and hydrokinetic, biomass, and hydrogen technologies. Prior to his current position, Steve served as EERE's Chief Operating Officer and led EERE's Recovery Act implementation, which included $17 billion of awards, part of the nation's largest-ever investment in clean energy. Steve also supported the Treasury Department launch two new clean energy tax programs—the 1603 grants-in-lieu-of tax credits and the 48C advanced manufacturing tax credits, both of which contributed significantly to America's growing clean energy sector. During the previous Presidential transition period, he was the Principal Deputy Assistant Secretary and led EERE.

He holds a Bachelor of Science in Chemical Engineering from the University of Maryland and a Master of Science in Mechanical Engineering from the George Washington University.

He is scheduled to serve as moderator for the Solar as a Base Load Power Source breakout session at 10:45 AM on Wednesday.

CRAIG CORNELIUS

Senior Vice President of Business Development, NRG Solar

Craig Cornelius is responsible for the origination of solar investment opportunities, the formation of new financing sources for distributed generation and utility markets and the formation of external partnerships in key strategic areas for NRG Solar. Prior to his tenure at NRG Solar, he served as a Managing Director at Hudson Clean Energy Partners, where he led investment activities in the firm's solar investing practice. Previously, Cornelius was the Program Manager of the U.S. Department of Energy's (DOE's) Solar Energy Technologies Office, where he led the creation of the $1.5 million Solar America Initiative. He also served terms at the National Aeronautics and Space Administration, the Geoinformatics and Space Technology Development Agency of Thailand, the National Academies of Science, Wexler & Walker Public Policy Associates and the Office of House Minority Leader Rep. Richard Gephardt.

Cornelius holds an A.B. from Princeton University in history of science with a concentration in aerospace engineering and an M.A. in science, technology and public policy from the George Washington University. He was a Henry Luce foundation Scholar and received the DOE's Special Service Award for his work in creating the Solar America Initiative.

He is scheduled to serve as a panelist for The SunShot Initiative: The Future is Bright, at 9:30 AM on Tuesday.

Headlining Speaker Biographies

DR. DAVID DANIELSON

Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy

Dr. David Danielson leads the Office of Energy Efficiency and Renewable Energy (EERE) within the U.S. Department of Energy (DOE). As Assistant Secretary, he oversees a broad energy portfolio that is intended to hasten the transition to a clean energy economy. Previously, he was the first Program Director hired by DOE's Advanced Research Projects Agency-Energy (ARPA-E). At ARPA-E, he developed and led R&D programs with a budget of more than $100 million that focused on high-risk, high-reward, disruptive clean energy technologies. Prior to joining ARPA-E, he was a clean energy venture capitalist at General Catalyst Partners, a Boston-based venture capital fund. He co-founded the firm's clean energy investment practice and helped build and grow startups in various clean energy technology areas including solar power, wind power, advanced biofuels, bio-gas, carbon capture and storage, and advanced lighting.

He was a co-founder of the New England Clean Energy Council. He has authored more than 20 scientific articles in the field of advanced materials. While at the Massachusetts Institute of Technology (MIT), he was the founder and President of the MIT Energy Club and a founding Director of the MIT Energy Conference. For his work in building a strong multidisciplinary energy community at MIT, he was awarded the Karl Taylor Compton Prize, MIT's highest student award. He holds a B.S., summa cum laude, in materials science and engineering from the University of California, Berkeley, and a Ph.D. in materials science and engineering from MIT.

He is scheduled to give a keynote address at 9:10 AM on Wednesday.

JOSEPH DESMOND

Senior Vice President of Marketing and Government Affairs, BrightSource Energy

Joseph Desmond is Senior Vice President of Marketing and Government Affairs for BrightSource Energy. Desmond brings almost three decades of private and public energy sector experience to his role at BrightSource Energy, where he oversees communications, marketing, and government and regulatory affairs. Prior to joining BrightSource Energy, Desmond served as Executive Vice President and Chief Marketing & Business Development Officer at Ice Energy, Inc. and Senior Vice President of External Affairs at NorthernStar Natural Gas. Desmond served numerous executive roles under California Governor Arnold Schwarzenegger including Deputy Secretary of Energy for the State Resources Agency, Chairman of the California Energy Commission and Undersecretary for Energy Affairs. Prior to public service, Desmond spent four years as President and Chief Executive Officer of Infotility, Inc. Previously, he served as President and Chief Executive Officer of Electronic Lighting, Inc., and Vice President of Parke Industries. He serves on the Board of Directors of the American Council On Renewable Energy (ACORE), and on the Board of Directors for the California Foundation on the Environment and the Economy (CFEE). In addition, he also serves on the Advisory Council of Stanford University's Precourt Energy Efficiency Center. Desmond earned a B.S. in marketing, finance and management from Northeastern University where he graduated magna cum laude.

He is scheduled to serve as a panelist for The SunShot Initiative: The Future is Bright, at 9:30 AM on Tuesday.

CRISTIN DORGELO

Assistant Director for Grand Challenges, White House Office of Science and Technology Policy

Cristin Dorgelo serves as Assistant Director for Grand Challenges with the White House Office of Science and Technology Policy (OSTP). At OSTP, Cristin works to increase the number of individuals and organizations pursuing 21st Century Grand Challenges – audacious yet achievable goals that harness science and technology to solve global and national problems. Cristin also works with federal agencies to use inducement prizes to engage citizen solvers on Challenge.gov. Prior to joining OSTP, Cristin was Vice President of Prize Operations for the X PRIZE Foundation, a nonprofit prize institute whose mission is to create radical breakthroughs for the benefit of humanity. As part of the X PRIZE team from 2006 through early 2012, Cristin managed the X PRIZE Foundation's competitions, including the Google Lunar X PRIZE, the Progressive Insurance Automotive X PRIZE, the Northrop Grumman Lunar Lander X CHALLENGE, and the Wendy Schmidt Oil Cleanup X CHALLENGE. Before joining the X PRIZE Foundation, Cristin was part of the founding team of X1 Technologies as Director of Operations, helping the desktop search company develop its innovative software and grow from zero to 40 employees from 2002 to 2006. Prior her work at X1 Technologies, Cristin helped to launch several startup companies, including Energy Innovations, Omnilux, and XBeams, at the Pasadena incubator Idealab. Cristin was part of the leadership and organizational development group at Times Mirror before it was bought by Tribune Company in 2000. She started her career in advertising operations at the Los Angeles Times. Cristin holds a B.A. in history with a minor in anthropology from UCLA.

She is scheduled to give a keynote address at 10:20 AM on Wednesday.

LINDA J. FISHER

Vice President and Chief Sustainability Officer, DuPont Safety, Health & Environment

Linda J. Fisher is Vice President – DuPont Safety, Health & Environment and chief sustainability officer. She has responsibility for advancing DuPont's progress in achieving sustainable growth; DuPont safety, health and environmental programs; the company's global product stewardship and regulatory affairs program and corporate philanthropy. She joined DuPont in July 2004.

Prior to joining DuPont, Ms. Fisher has served in a number of key leadership positions in government and industry including: Deputy Administrator of U.S. EPA; U.S. EPA Assistant Administrator - Office of Prevention, Pesticides and Toxic Substances; U.S. EPA Assistant Administrator - Office of Policy, Planning and Evaluation; and Chief of Staff to the U.S. EPA Administrator. Fisher, an attorney, was also Vice President of Government Affairs for Monsanto and was "of counsel" with the law firm, Latham & Watkins.

Ms. Fisher received a law degree from Ohio State University, an MBA from George Washington University and a B.A. from Miami University. Ms. Fisher serves as liaison to the Environmental Policy Committee of the DuPont board of directors. She serves on the board of directors of the Covanta Holding Corporation and the boards of several non-profit organizations.

She is scheduled to serve as a panelist for The SunShot Initiative: The Future is Bright, at 9:30 AM on Tuesday.

Headlining Speaker Biographies

RAFFI GARABEDIAN

Chief Technology Officer, First Solar

Raffi Garabedian joined First Solar in 2008 as Director of Disruptive Technologies, and was promoted to Vice President of Advanced Technologies in 2010, overseeing the company's advanced research and development operations in Santa Clara, California, and was promoted to Chief Technology Officer in May 2012. Prior to joining First Solar, he was founder and CEO of Touchdown Technologies, a semiconductor test equipment company. Prior to that, Mr. Garabedian worked in the semiconductor and microelectromechanical systems industries for over 15 years, developing new products ranging from automotive sensors to telecommunications switching systems, and holds more than 20 issued patents in these fields.

Mr. Garabedian earned a BSEE degree from Rensselaer Polytechnic University and an MSEE degree from the University of California at Davis.

He is scheduled to give a keynote address at 9:00 AM on Tuesday,

DR. BECCA JONES-ALBERTUS

Program Manager, Photovoltaics

Dr. Becca Jones-Albertus manages SunShot's photovoltaics program, which endeavors to make significant improvements in solar cell efficiency, cost and reliability.

Dr. Jones-Albertus has more than 10 years of experience working with solar cell materials and devices, from fundamental research and development to manufacturing. Previously, Dr. Jones-Albertus was the characterization and design manager at Solar Junction, where she led work contributing to the development of the company's breakthrough dilute nitride solar cells, their two-time world record triple junction solar cells and then the successful transfer of that technology to a high volume manufacturing toolset. She has 34 technical publications and one patent.

Dr. Jones-Albertus graduated magna cum laude from Princeton University with a B.S. in electrical engineering, and also holds a M.S. and Ph.D. in materials science and engineering from the University of California, Berkeley.

She is scheduled to lead a session on the SunShot Initiative's Photovoltaics subprogram at 12:00 PM on Tuesday.

MINH LE

Director, SunShot Initiative, U.S. Department of Energy

Minh Le is the Director of the Solar Energy Technologies Office within the U.S. Department of Energy (DOE), where he helps to manage and balance a roughly $1 billion multi-year portfolio of research, development, demonstration, and deployment programs to achieve the goals of the SunShot Initiative.

Prior to his current role at the DOE, Minh spent his career in the semiconductor and solar industry developing technologies and scaling new technologies to high volume manufacturing.

Minh earned his B.S. and M.S. degrees from MIT, where he held fellowships with DOE, the Department of Defense, and the Bose Foundation.

Minh will speak several times throughout the Summit.

KRIS MAYES

Professor, Arizona State University

Kris Mayes is the founding faculty director of the Program on Law and Sustainability at Arizona State University's Sandra Day O'Connor College of Law and is a member of the faculty at ASU's Global Institute of Sustainability.

Mayes served as an Arizona Corporation Commissioner from 2003 to 2010, where she was also Chairperson for two years. During her tenure at the ACC, Mayes co-authored Arizona's Renewable Energy Standard, and was a driving force behind the Commission's adoption of one of the nation's most ambitious electric energy efficiency standards. Mayes also helped establish one of the most ambitious energy efficiency standards in the nation, requiring utilities to sell 22 percent less energy by 2010 than they would have under current forecasts.

She is scheduled to serve as a panelist for The SunShot Initiative: The Future is Bright, at 9:30 AM on Tuesday.

Headlining Speaker Biographies

BILLY PARISH

Founder and President, Mosaic

Billy Parish is Founder and President of Mosaic, a marketplace for clean energy investing that was recently named one of the world's 10 most innovative companies in energy by *Fast Company*. In 2002, he dropped out of Yale to found the Energy Action Coalition and grew it into the largest youth clean energy organization in the world with over 300,000 members. He was lead architect of the Clean Energy Corps proposal to create five million new green jobs, which was incorporated into the American Recovery and Reinvestment Act and also expanded AmeriCorps with a new "Clean Energy Service Corps." He has been honored as a *Rolling Stone* magazine "Climate Hero," and was elected as a Fellow by Ashoka, the global association of the world's leading social entrepreneurs. His book *Making Good: Finding Meaning, Money & Community in a Changing World* was an Amazon bestseller. He lives in Oakland, CA, with his wife and two daughters.

He is scheduled to give a keynote address at 11:00 AM on Tuesday.

DR. RANGA PITCHUMANI

Chief Scientist & Program Manager, Concentrating Solar Power

In 2011, soon after the launch of the SunShot Initiative, Dr. Ranga Pitchumani was invited to direct SunShot's concentrating solar power (CSP) program toward its ambitious goal of making CSP cost-competitive with other forms of energy by the end of the decade. He currently serves as the Chief Scientist and director of the CSP and Systems Integration (SI) programs. Dr. Pitchumani also holds an academic appointment as professor of mechanical engineering at Virginia Tech.

In his role at Energy Department, Dr. Pitchumani oversees a team of technology managers and technical, financial, and support personnel who actively manage the competitive awards in the CSP and SI portfolios. Under his leadership, several new initiatives have been launched with significant investment and have engaged a spectrum of participants and disciplinary expertise working in concert toward the program's mission.

He is scheduled to lead sessions on the SunShot Initiative's Concentrating Solar Power and Systems Integration subprograms at 11:50 AM and 12:10 PM respectively on Tuesday.

DR. RAMAMOORTHY RAMESH

Deputy Director for Science and Technology, Oak Ridge National Laboratory

Ramamoorthy Ramesh joined Oak Ridge National Laboratory (ORNL) as Deputy Director for Science and Technology in June 2013. Ramesh oversees one of the nation's largest research and development programs, with annual expenditures of $1.4 billion in materials and physical sciences, energy and engineering sciences, computing and computational sciences, biological and environmental sciences, neutron sciences, and global security. Prior to his present appointment, he was the Plato Malozemoff Chair Professor of Materials Science and Engineering and Physics at the University of California, Berkeley, with a joint appointment as a faculty senior scientist at Lawrence Berkeley National Laboratory.

Ramesh holds a Ph.D. in materials science from the University of California, Berkeley. He joined Bellcore in 1989 and initiated research in key technology areas, including ferroelectric nonvolatile memories. Ramesh joined the University of Maryland in 1995 and was promoted to professor in 1999 and distinguished professor in 2003. In 2004, he joined the UC Berkeley faculty in the materials acience and engineering and physics departments. Ramesh served as director of DOE's SunShot Initiative and Solar Energy Technologies Program from 2011 to 2012. He was elected to the National Academy of Engineering in 2011 in recognition of his contributions to the science and technology of functional complex oxide materials.

He is scheduled to give a keynote address at 8:40 AM on Tuesday.

DR. LIDIJA SEKARIC

Program Manager, Technology to Market

Dr. Lidija Sekaric manages SunShot's technology to market program. Her team's portfolios spans start-up incubation programs, technology commercialization pathways, innovation in manufacturing, cost analysis, and strategic programs and analysis.

Prior to joining SunShot, Dr. Sekaric served as a senior advisor in the office of the Under Secretary of Energy and as a technical and market advisor for some of the world's largest distributed solar generation projects. Prior to joining the Energy Department, Dr. Sekaric conducted research in nanoscale science and engineering. Her accomplishments include record-setting devices in nano-photonics, electronics, nanomechanics and sensors.

Dr. Sekaric has more than 40 scientific publications and holds 23 U.S. patents. She received her Ph.D. and M.S. in applied physics from Cornell University and her A.B. in physics from Bryn Mawr College.

She is scheduled to lead a session on the SunShot Initiative's Technology to Market subprogram at 12:20 PM on Tuesday.

Headlining Speaker Biographies

TIMOTHY ALAN SIMON, ESQ.

Consultant, Former California Public Utility Commissioner

Timothy Alan Simon was appointed to the California Public Utilities Commission by Governor Arnold Schwarzenegger on February 15, 2007 ending his term on January 2, 2013. Prior to this appointment he served as Appointments Secretary in the Office of the Governor, the first African American in California history to hold this post. As a securities and banking industry attorney advising in complex financial products and services, he firmly supported investment in infrastructure as critical to California's and the nation's economic future. He actively promoted and encourages diversity in utility procurement, educational opportunities, and workforce preparedness through New Connections, a transactional-focused collaborative designed to expand utility supplier diversity in professional services.

In 2013 Simon founded TAS Strategies, a consulting and legal advisory firm serving clients on utility infrastructure, energy, broadband and financial services. Simon received a bachelor's degree in economics from the University of San Francisco, where he was awarded as a distinguished alumnus, and a juris doctor from the University of California Hastings College of the Law. He currently serves an adjunct professor of securities regulation and merger acquisitions at the Golden Gate University School of Law in San Francisco, and serves as an advisor on international securities in Golden Gate's U.S. legal studies program.

He is scheduled to serve as a panelist for The SunShot Initiative: The Future is Bright, at 9:30 AM on Tuesday.

THE HONORABLE TOM TAIT

Mayor of Anaheim

Tom Tait was elected to serve as Mayor of Anaheim in November 2010, campaigning on a platform of bringing the core values of freedom and kindness to the culture of the city and upholding public safety and civic upkeep as the City of Anaheim's top priorities. Tait's election comes after two previous terms on the Anaheim City Council. In 1995, Tait was appointed to fill a vacancy and complete an unexpired term on the city council. He was subsequently elected by the voters in November 1996 to serve a full four-year term and was re-elected without a challenge in 2000 and served as Mayor Pro Tem from 2002-2003.

Mayor Tait brings considerable experience to California's tenth largest city, having also served on the Anaheim Planning Commission, the Anaheim Budget Advisory Commission, and as a member of the Anaheim Community Block Grant Foundation. He also served as Anaheim's representative on board of the Metropolitan Water District of Southern California and has been active in the community, where he was an advisory board member of the Anaheim Family YMCA and the Salvation Army Adult Rehabilitation Center.

Mayor Tait received his B.S. from the University of Wyoming and earned a master's degree in business administration from Vanderbilt University with a concentration in finance. He received a juris doctor degree from Vanderbilt in 1985.

Mayor Tait is a member of the California State Bar, and is president of Tait & Associates, Inc. and Tait Environmental Services, an engineering and environmental services firm with offices throughout the western United States. Tait and his wife, Julie, have four children. They have resided in Anaheim for 22 years.

He is scheduled to give opening remarks for the Summit at 4:15 PM on Monday during the Opening Reception.

DR. ELAINE ULRICH

Acting Program Manager, Balance of Systems/Soft Costs

A native Coloradan, Dr. Elaine Ulrich manages SunShot's balance of systems program, which works to reduce the non-hardware (soft costs) of solar, lower barriers to solar adoption, and foster market growth.

A former American Academy for the Advancement of Sciences Fellow, Dr. Ulrich has spent the past few years working on renewable energy. She previously held positions in the office of former U.S. Senator Ken Salazar, U.S. House of Representatives Committee on Science and Technology, the Energy Department's Office of Strategic Planning and Analysis, and in the office of U.S. Representative Gabrielle Giffords, where she worked to build a comprehensive solar energy portfolio. Dr. Ulrich holds a B.A. in physics from Wellesley College and a Ph.D. in optical science from the University of Arizona.

She is scheduled to lead a session on the SunShot Initiative's Soft Costs subprogram at 11:40 AM on Tuesday.

ALI ZAIDI

Deputy Director for Energy Policy, The White House Domestic Policy Council

Ali Zaidi works on the design and implementation of federal policies and the development of public and private sector partnerships to increase U.S. energy security and cut harmful carbon pollution. As Deputy Director for Energy Policy, Zaidi handles a wide range of issues on the White House's domestic policy team. His portfolio covers policy matters related to supply of and demand for energy - including policies that reduce our dependence on foreign oil by promoting responsible federal-lands production and adoption of alternative fuels; and policies that create jobs by advancing research and deployment of clean energy and energy efficiency technologies - as well as the intersection of these matters with the President's Climate Action Plan. Since February 2009, Zaidi has served in a number of roles within the Obama Administration: Before his current position, he served as senior director for Cabinet Affairs at the White House, functioning as the primary liaison to the energy, transportation and natural resources agencies. Zaidi has also served as a policy aide to the U.S. Energy Secretary Steven Chu and as special projects coordinator at the U.S. Office of Management and Budget.

He is scheduled to give a keynote address at 10:05 AM on Wednesday.

About SunShot

The SunShot Initiative is a collaborative national effort launched in 2011 that aggressively drives innovation to make solar energy fully cost-competitive with traditional energy sources before the end of the decade. Through SunShot, the Energy Department supports efforts by private companies, universities, and national laboratories to drive down the cost of solar electricity to $0.06 per kilowatt-hour. SunShot is working to make it faster, easier, and cheaper for Americans to choose solar energy in their daily lives. Learn more at energy.gov/sunshot.

Media Contacts

Contact the SunShot communications team to schedule an interview with a SunShot team member or to learn more about our work.

JAMIE NOLAN
EMAIL: jamie.nolan@ee.doe.gov
OFFICE: 202-287-1760
MOBILE: 410-463-9869

DAVID MAYORGA
EMAIL: david.mayorga@ee.doe.gov
OFFICE: 202-287-1637
MOBILE: 202-558-8752

Social Media

LIKE US ON FACEBOOK: Facebook.com/EEREgov
FOLLOW US ON TWITTER: @ENERGY
Follow the conversation about the Grand Challenge Summit at **#SunShotSummit**.

CONTACT THE SUNSHOT INITIATIVE:

EMAIL: solar@ee.doe.gov
PHONE: 202-287-1862

MAILING ADDRESS: 1000 Independence Avenue, SW Washington, D.C., 20585

Visit us online at energy.gov/sunshot.

Learn more about current SunShot funding opportunities at energy.gov/eere/sunshot/financial-opportunities.

DOE/EE-1082 • May 2014
Printed with a renewable-source ink on paper containing at least 50% wastepaper, including 10% post consumer waste.