

## ASES SOLAR 2021 Proceedings Introduction

National Organizing Committee

50th Annual National Solar Conference

August 3-6, 2021 | Hybrid Conference | University of Colorado Boulder + Online

ASES SOLAR 2021 expanded knowledge, inspired action and strengthened community through a wide variety of formal and informal exchanges and networking among online and in person participants. Attendees celebrated 50 years of progress and joined together in deeper commitments to accelerate the energy transformation equitably in this decade of disruption. Here are a few of the many conference highlights.

### 50<sup>th</sup> Anniversary

To commemorate the 50th anniversary milestone, the opening reception recognized the local native lands with a special blessing by James Rattling Leaf. In a special commentary, ASES Executive Director Carly Rixham reviewed the organization's progress and pioneers. NREL Deputy Director Peter Green framed the future energy transformation that those advancements not only make possible but inevitable. ASES's 50 years of contributions were also celebrated in Larry Kazmerski's engaging video of our history and current events as part of the annual ASES Awards Banquet.

### JEDI Commitment

ASES's commitment to justice, equity, diversity and inclusion (JEDI) principles is essential to achieving a 100% renewable energy and sustainable living. This was reflected throughout the keynotes and technical sessions. A key takeaway message of the opening keynote session with Dave Renné (Immediate Past President of ISES), Bill Ritter (Former Colorado Governor and founder of Center for New Energy Economy), and Alice Jackson (CEO Xcel Energy Colorado): we have the technology, and to a growing extent, the financing and policies to achieve 100% renewable energy world in the near future. However, stronger political will is needed to ensure an equitable transformation. The closing keynote by Amory Lovins, co-founder of Rocky Mountain Institute, provided a compelling reminder about the importance of design to achieve the transformation we envision. Both Lovins and Renné referenced a quote from Dwight Eisenhower; "If a problem can't be solved, enlarge it," an auspicious reminder about the importance of bringing more stakeholders into the discussion, even if they don't agree with you.

Building on the conference theme of "Empowering a Sustainable Future," the Social and Environmental keynote session focused on the topics of racism and social justice as they intersect with energy writ large and renewable energy in particular. Henry Red Cloud (Executive Director at Red Cloud Renewable), Michelle Romero (National Director at Dream Corps), Monique Dyers (President/CEO at Ensign Energy Consulting) and Pilar Thomas (Professor of Practice at the University of Arizona) shared their perspectives on working together to ensure that *all* communities benefit from the clean energy transition, and how empowering a sustainable future can benefit everyone without harming the most vulnerable among us.

## **Technical Sessions**

SOLAR 2021 featured outstanding content in the technical sessions on social and environmental justice, modeling and scaling, solar advancements, sustainability, and policy, education, and finance deepened the discussions around equity, technology progress, challenges, and paths forward. Other sessions: the important role of local governments in accelerating solar adoption; programs to help low and middle income individuals access solar; incentives and rebates to accelerate EVs; recycling and life cycle of materials; carbon footprints; land use; how solar cookers can improve the lives of three billion people; modeling tools that advance grid scale solar energy adoption; nuances to battery system sizing; passive and active solar systems from design to maintenance; community solar; and workforce development needed in all of these areas.

## **Board Special Recognition 2021 – Tony Seba**

For the first time, ASES's Board of Directors recognized an ASES member for exceptional contributions to our 100% renewable energy transformation goal. ASES Professional Member, Tony Seba, is a world-renowned thought leader, author, speaker, educator, angel investor and Silicon Valley entrepreneur. Recognized for simple, consistent and persistent explanations of the challenges and exponential opportunities related to solar and clean technology disruption, Seba envisions an electric grid run primarily on PV technologies with storage capacity that includes a fully electrified transport system. He has directly influenced cleantech leaders, corporations, investors, utilities, political decision makers and the general public. Seba's work focuses on technology disruption, the convergence of technologies, business model innovation, organizational capabilities and product innovation that leads to the creation of new industries and societies and the collapse of existing ones. Although his work has primarily focused on disrupting the U.S. electricity grid, his influence has spread worldwide as his vision is now being embraced by global cleantech industry organizations. In addition to his inspirational acceptance speech at the Awards Banquet, Seba also spoke at the Industry Roundtable as a Keynote speaker. Attendees were optimistic and energized about the exponential growth of solar's superpower status within this decade. His broad vision includes a new age of humanity, moving from the Age of Extraction to the Age of Creation.

## **ASES Fellows and Awardees**

### **Six new ASES Fellows were inducted:**

**Everett M. Barber, Jr.** has worked for more than 50 years as an inventor, designer, entrepreneur, manufacturer, educator, writer, and advocate inspiring thousands of this industry's leaders.

**Lucas Dixon**, a dedicated ASES leader, solar energy advocate, and energy-efficiency professional, served as Board Chair 2018-2019.

**Robert Foster** is known for his sustained contributions to the advancement of renewable energy in over 40 countries, as well as his lifetime dedication to education and community service.

**David Hill**, a long time ASES leader and Board Chair 2012-2013, is recognized nationally for his groundbreaking work to advance sustainable energy markets.

**Orlo Stitt** has dedicated his life to educating others about how to save energy and why doing so makes the world better for us and future generations.

**Tom Stoffel** is recognized as one of the international giants of solar resource characterization and a person who provided passionate service to the solar energy community for decades.

## 2021 Awards

### **Charles Greeley Abbot Award**

**Jan Kleissl**, *University of California San Diego*

**Citation:** For groundbreaking and global leadership and contributions in the important field of solar energy meteorology and pioneering research leading to renewable-energy capacity building in the electricity grid system.

### **Women in Solar Energy (WISE) Award**

**Fayeann Lawrence**, *Sologistics*

**Citation:** For leadership and outstanding contributions to technical achievement, policy advocacy, educational opportunities, and social change built upon her dedication to collaboration and inclusion—and specifically providing opportunities for women and minorities in solar.

### **Rebecca Vories Award**

**John Burke**, *Maine Solar Energy Association & Downeast Alternative Design Solar (DADS)*

**Citation:** For a uniquely inspiring blend of ASES chapter and division leadership, generously topped with humor, caring, outreach, and dedication.

### **Leadership in Solar Architecture and Design Award**

**Alfredo Fernandez-Gonzalez**, *University of Nevada Las Vegas*

**Citation:** For extraordinary leadership in advancing excellence in passive solar research, design, and education.

### **Leadership in Solar Policy and Market Transformation Award**

**Paul Fenn**, *Local Power*

**Citation:** For exceptional efforts and successes in initiating policies that have led directly to the Community Choice Aggregation (CCA) model and having revolutionary impact on community solar development.

### **John and Barbara Yellott Award**

**Qihua Duan**, *The Pennsylvania State University (Architectural Engineering)*

**Citation:** For her research in developing a model to decompose broadband solar radiation into narrowband visible (VIS) and near infrared (NIR) components and implementing this into current solar architecture design.

**William Callahan**, *Colorado School of Mines (Materials Science)*

**Citation:** For designing, modeling, and developing a functioning solar and thermophotovoltaic/ thermoradiative system and complementary fundamental research leading to new and transformative electronics for renewable-energy systems operating in harsh environments.

### **Networking Events:**

**WISE Forum** where accomplished women share lessons learned and heartfelt stories to inspire women to become more technically involved in solar.

**Emerging Professionals Forum** provided opportunities to build networks and obtain guidance in navigating early career challenges.

**Spirit and Sustainability Forum** celebrated its 25<sup>th</sup> anniversary by acknowledging its founder Barbara Harwood (Pia Aitken) and inviting attendees to share their thoughts about bringing diversity into the energy transformation tent.

**Industry Roundtable** provided sponsors a platform for five-minute pitches for their businesses or offerings.

### **Special Events:**

Attendees at the Awards Banquet were entertained by the Stand Up for Climate Change Comedy Show, an online show hosted by Max Boykoff and Beth Osnes, featuring select pieces developed by University of Colorado students and performed by stand-up comedians from across the nation. The show was emceed by recent graduates Ben Stasny and Megan McHugh. [See the whole show online.](#)

This year, as part of SOLAR 2021, ASES held a Climate Ride/Walk Solar Fundraiser. Online and in person attendees were challenged to raise funds for ASES through the event.

ASES also featured a special Colorado Spotlight Session highlighting a panel of local Colorado leaders and the work they are doing in the renewable energy sector.

### **Workshops & Tours**

SOLAR 2021 featured two NABCEP registered workshops (Solar PV Intensive and Energy Storage, PV & NEC) and a workshop on DIY Energy Efficiency. Tours included Jack's Solar Garden, the nation's largest agrivoltaic research site which is located in Boulder, and a virtual tour of NREL.

### **SOLAR 2021 – 1<sup>st</sup> Hybrid Conference Success Statistics – Thank You**

All sessions were hybrid with speakers and audience in person and online.

**Opening reception – Carly Rixham, ASES Executive Director, Sarah Townes, ASES CFO and Zen Director, and Dale Miller, Conference Chair**

**Total number of registered participants hybrid and virtual: 435**

**Total number of JEDI scholarships awarded: 13**

**Total number of sponsors: 9**

**Total number of volunteers: 37**

**Total number of people who participated in the Caucuses: 40**

A special thank you to the SOLAR 2021 National Organizing Committee (Dale Miller, Dave Ginley, Carly Cipolla, Carly Rixham, Robert Foster, Paulette Middleton, Dara Bortman, Paul Ndione), ASES staff, volunteers and interns, and everyone who contributed and participated in the conference.

## **Moving Forward**

During the ASES Annual Membership meeting at the end of the conference, ASES board and staff reported on outstanding progress over the past year and underscored goals, focus areas and commitments outlined in our transformative five-year strategic plan.

**Goals:** Interact with and inform a broader and more diverse cross-section of solar stakeholders including individuals, communities, businesses, local governments and other organizations with similar missions and values; and strive to strengthen these partnerships and develop a more committed and active base of dedicated staff, interns and volunteers.

### **Focus Areas:**

- Monitoring, integrating and disseminating information and resources particularly in policy best practices and technology innovation.
- Education and workforce development with special attention to providing resources to the knowledge base of professions influencing solar adoption and focused educational resources for emerging professionals.
- Facilitation of solar adoption by individuals and communities by supporting the global expansion of sustainable solar power (PV and solar thermal).

**JEDI Commitment:** Ensure that ASES's energy transformation work follows JEDI principles and advances these values more broadly in the organization.

*Efforts in all ASES programs reflect these goals, focus areas and commitments.*

**All SOLAR 2021 is available online for people who registered for the conference.**

**See you next year in Albuquerque, NM, June 21-24 at ASES SOLAR 2022!**