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**Our Collective Vision:**

We endeavor to be a community in which engineers, scientists, and leaders from around the world work together to advance the just development of sustainable energy technologies for the benefit of society.



## Letter from the Executive Committee

Dear Members of the ASME Solar Energy Division,

On behalf of the Solar Energy Division Executive Committee, thank you for your continued support of our division and our mission to advance solar and sustainable energy technologies. Whether you contribute through research, professional practice, student mentorship, conference participation, or simply by promoting our community within your network, we are grateful for the time, energy, and expertise you bring to the division.

This newsletter highlights several of the division's most important activities and the impact they have across our community. First, we feature a story on the Solar Splash intercollegiate solar boat competition, which the division proudly sponsors each year. Solar Splash continues to provide an exceptional hands-on learning experience for students. The competition enables students to grow their technical skills, developing as leaders, collaborate across engineering disciplines, and appreciate the real-world constraints that shape renewable energy systems. The story captures the spirit of the competition and the lasting influence it has on participating teams.

Second, we include a short conference update on the ASME Energy Sustainability Conference (ES 2025) which brought together researchers, industry professionals, and students to share cutting-edge work in renewable energy, grid integration, decarbonization, and sustainable energy systems. We also share early highlights of the upcoming ES 2026 conference, along with information on how to register and participate (including opportunities for authors, attendees, and students) through the conference website.

Finally, we include an overview of how the Solar Energy Division funds the activities we support—including student competitions, conference programming, and recognition initiatives—through a combination of conference revenue and member gifts. In a time when student teams and conference communities face increasing financial pressures, your support plays a direct role in keeping these opportunities accessible and impactful. We respectfully invite you to consider making a gift to the division this year to help ensure that our support of students, researchers, and division programs can continue.

Thank you again for your membership and for the many ways you help strengthen the ASME Solar Energy Division. We hope you enjoy this issue, and we look forward to connecting with you at upcoming division events and at the Energy Sustainability Conference.

Sincerely,

**The Executive Committee**

ASME Solar Energy Division

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## Feature Story

### Solar Splash: Where Solar Energy, Engineering, and Students Come Alive

Luke Venstrom

January 2026

Each summer, on a stretch of water in Springfield, Ohio, teams of undergraduate engineering students gather to race solar-powered boats in the Solar Splash, an intercollegiate competition sponsored and run by members of the Solar Energy Division, including former division chairs Drs. Jeffrey Morehouse and Roy Hogan. The competition is a remarkably durable pipeline for turning students studying engineering in the classroom into engineers putting their knowledge and skills into practice. The boats take center stage at the competition, but the lasting story is what happens to the students who build them: they learn to solve messy problems under pressure, communicate across disciplines, and build confidence that can be hard to acquire in coursework.



The race is on at the Solar Splash!

Steven Guo, an electrical engineering student at Carnegie Mellon University, joined his team because he wanted more than theory. “Theory can only take you so far. Being able to actually apply the things I learned in class was very helpful.” That hands-on experience also gave him an edge in the job market. Solar Splash became “one of the biggest things” he could talk about in interviews, and he credits it as decisive in shaping his professional trajectory. “I can say with very high confidence that the reason I have my job today is because of joining the Solar Splash team.”

*“Everybody at school takes classes. But 500 kids are not out here building solar boats.” —Steven Guo (Carnegie Mellon University)*

At Cal Poly Pomona, mechanical engineering graduate Talia Dorian came to Solar Splash through a different path: a deep interest in renewable energy and climate action. “I am really passionate about renewable energy and the fight against climate change, and when I found out that our school had a Solar Splash team, it just seemed like the perfect match.” She discovered the team almost by accident, learning in a serendipitous lunch conversation that the team had existed for two decades outside of the spotlight. That began to change quickly. “We went from six people at the start of last year to around eighty at the start of this year,” Talia said, as the team gained visibility and momentum.

Talia’s experience also highlights how Solar Splash mirrors real engineering practice, especially for teams rebuilding after pandemic disruptions. Cal Poly Pomona lost much of its institutional knowledge during COVID shutdowns, so student leaders traveled to the competition simply to observe and learn before attempting to build again. From there, the challenge was immense: construct a competitive boat in a single year with limited funding. “We got about \$6,000 from the school, and by the end of it, we ended up spending \$20,000.” Fundraising, material reuse, and creativity became as essential as technical skill.

The competition tested those efforts immediately. The team’s newly built hull took on water during races, forcing improvised repairs on the fly. “We spent basically two races covering the entirety of the bottom

with flex tape and silicone,” Talia recalled, while also relying on a bilge pump to keep the boat afloat.



Carnegie Mellon’s boat glides through the water.

Faculty advisors note that such real-world engineering challenges are at the core of the competition. Professor Peter Vorobieff from the University of New Mexico emphasizes that Solar Splash is designed to keep barriers to entry low while still demanding serious engineering. Teams can pursue simple or sophisticated designs, but all must confront the same real-world constraints: delayed parts, logistical hurdles, on-site assembly, and the unpredictable behavior of complex systems under load. These challenges, he argues, are where the deepest learning happens.

Another defining characteristic of Solar Splash is the spirit of cooperation among and between teams. Talia described how experienced teams openly mentor newer ones, even potential rivals. “This is a

competition, but it’s not cutthroat. Everyone is there for renewable energy, for engineering, for the love of the game.” When a cracked battery threatened to end Cal Poly Pomona’s run, another team stepped in without hesitation. “They asked, ‘Do you want to borrow ours?’” she said. The gesture left a lasting impression. Steven Guo observed the same culture from his perspective, noting that teams routinely help each other troubleshoot problems and share tools as if every boat on the water were their own.

*“I learned more in the one year that we were building the boat than I have in my entire time in college”  
—Talia Dorian (Cal Poly Pomona)*

For Talia, the most powerful lessons were not purely technical. One moment stands out: after discovering a major hull failure, the team gathered for lunch, exhausted and discouraged. “The president of the team just started crying and said, ‘I wouldn’t want to be here with anyone else than the team that’s in front of me right now.’” What followed was a collective recommitment. Teams from across the competition helped lift their waterlogged boat in and out of the lake. “Seeing not only our team, but the rest of the competition come together to help us, that was huge.” By the end of the event, the team received the Perseverance Award, recognition that resilience matters too.

Solar Splash also reshaped how Talia understood herself as an engineer. “I learned more in the one year that we were building the boat than I have in my entire time in college”, she said. The experience helped quiet long-standing doubts about belonging in engineering. “Being able to connect my interest in renewable energy with engineering shook me out of that headspace and gave me confidence that I didn’t have before.”



Culture of cooperation: Other teams help launch the Cal Poly Pomona boat.

When asked what advice she gives to new students considering Solar Splash, Talia did not hesitate. “Believe in yourself, believe in your team, you have the skills.” It is advice commonly given to athletes that compete under pressure, but it is equally applicable to students in Solar Splash. When asked the same question, Guo shared that “it’s okay to be confused”, and students should not hesitate to ask questions because questions are how practicing engineers learn.

Solar Splash remains a vivid expression of why our division exists: to advance solar energy while cultivating engineers who can design, adapt, and persevere. The competition produces boats that move with motors powered by the sun, but more importantly, it produces engineers who understand that engineering is a human enterprise, powered as much by collaboration and resilience as by engineering models and technology.



## Conference Spotlight

### Energy Sustainability Conference: ES 2025 Highlights and What’s Next for ES 2026

The 19th International Conference on Energy Sustainability (ES 2025) brought together researchers, industry professionals, and students for three days of technical exchange and community-building in Westminster, Colorado (July 8–10, 2025). Co-sponsored by our division and the Advanced Energy Systems Division (AESD), the conference continued its role as a premier forum for engineering solutions that support the global energy transition.

**ES 2025: Strong Technical Content and a Strong Community.** ES 2025 showcased work spanning solar energy, sustainable thermal systems, energy storage, buildings, grid interaction, and broader decarbonization strategies. Participants benefited from a program designed to connect innovation with implementation—highlighting not only what is possible in the laboratory, but what is scalable, manufacturable, and deployable.

The conference also continued to strengthen its culture of mentorship and inclusion, especially for students and early-career engineers. ES 2025 featured Lightning Talks intended to foster communication skills and networking in a supportive environment.

**ES 2026: A Milestone Year in a High-Impact Region.** The 20th International Conference on Energy Sustainability (ES 2026) will be held in Bellevue, Washington, at the Hyatt Regency Bellevue on Seattle’s Eastside—an especially fitting setting given the region’s strong clean-tech innovation ecosystem.

ES 2026 programming reflects both the long-standing strengths of the conference and emerging research momentum. Planned technical tracks include AI for energy sustainability, heat pump technology, sustainable buildings and communities, thermal/mechanical/thermochemical storage, hybrid energy systems and microgrids, plus strong solar-focused tracks including Concentrating Solar Power (CSP) and solar chemistry.

For SED members and conference alumni, ES 2026 remains one of the division’s most valuable annual touchpoints—supporting publication-quality technical exchange while strengthening the community of engineers shaping the future of solar and sustainable energy systems.

#### ES 2026 Participation Quick Guide

**Conference website:** <https://event.asme.org/ES>

#### Why submit to ES?

- Highly relevant solar + sustainability audience
- Strong technical rigor with practical engineering focus
- Excellent networking for faculty, students, labs, and industry
- Great venue for early-career researchers and graduate students

#### Key deadlines (ES 2026):

- Presentation-only and poster abstracts due: March 24, 2026

#### Ways to participate:

- Full paper submission (archival ASME conference publication pathway)
- Presentation-only submissions
- Poster presentations
- Attend for technical learning + networking

**Student tip:** If you are attending ES for the first time, consider submitting a poster or giving a Lightning Talk—these formats are excellent entry points for building visibility, receiving feedback, and meeting potential collaborators. Also consider applying for a student registration award!

## Division Focus

### Our Strategic Vision—and Sustaining SED Impact

The ASME Solar Energy Division (SED) has a long history of convening engineers and researchers who are committed to advancing solar and sustainable energy technologies. As part of ASME’s Technical, Engineering, and Community (TEC) Sector, the division has supported the growth of the solar-energy engineering field by building an engaged professional community, creating venues for peer-reviewed scholarship, and developing pathways for students and early-career engineers to enter and thrive in the profession.

As the division looks forward, SED’s core values emphasize community engagement, peer-reviewed technical excellence, dissemination of knowledge, and a strong commitment to attracting and supporting students and young engineers. These values are put into action through the division’s strategic pillars, which include organizing the Energy Sustainability Conference, supporting key ASME journals, creating workforce-development opportunities, recognizing member achievement, and strengthening an inclusive culture across the division. Importantly, these are not abstract commitments: they directly shape the division’s priorities and investments year to year.

SED’s impact is made possible through how it strategically deploys its discretionary funds to support high-value initiatives that strengthen the solar-energy community. These funds help sustain programs such as the Solar Splash intercollegiate competition, registration subsidies that reduce barriers for students and early-career professionals, and special conference programming that enhances the Energy Sustainability Conference experience (such as student awards, invited sessions, and workforce-development activities). At the same time, SED faces an important financial reality: division revenue relies heavily on conference surplus funds and direct gifts from members, and conference surplus funds have been dwindling in recent years, making member support more important than ever. The division is deeply grateful for the many ways members contribute: through participation, mentorship, leadership, and promoting division activities within professional networks. We encourage members to consider giving this year to help ensure these impactful SED initiatives remain strong and sustainable for years to come.

*Your gift helps sustain student participation, high-impact technical programming, and hands-on experiences like Solar Splash.*

To make a donation, scan the QR code below. Thank you for your generosity!



## Division Leadership

### SED Executive Committee

- **Chair:** Rohini Bala Chandran, University of Michigan
- **Vice-chair:** Akanksha Krishnakumar, Georgia Institute of Technology
- **Treasurer:** Johannes Grobbel, German Aerospace Center (DLR)
- **Incoming Member:** Jeremy Sment, Sandia National Laboratory
- **Immediate Past Chair:** Luke Venstrom, Valparaiso University
- **Staff Liason:** Jamie Hart, Senior Manager–Technical&Engineering Communities (TEC) Operations

### ES 2026 Organizing Committee

#### General Conference Chairs

- Like Li, University of Central Florida
- Hailei Wang, Utah State University

#### Technical Program Chairs

- Shuang Cui, The University of Texas at Dallas
- Aggrey Mwesigye, University of Calgary

#### Technical Program Co-Chairs

- Andrew Schrader, University of Dayton
- Sarvenaz Sobhan, Sacramento State University
- Alon Lidor, National Laboratory of the Rockies
- Alex Zolan, National Laboratory of the Rockies

### Division-Sponsored Publications

- **Journal of Solar Energy Engineering** — *Editor:* S. A. Sherif, University of Florida
- **Journal of Engineering for Sustainable Buildings and Cities** — *Editors:* Monem Beitelmal, Qatar Environment & Energy Research Institute and Jian Zhang, University of Wisconsin–Green Bay