



# SOLAR ENERGY INTERNATIONAL

Educate.  
Engage.  
Empower.

From all of us at Solar Energy International, thank you! 2019 brought SEI deeper into meaningful collaborations, to move beyond a fossil fuel-based economy and towards a clean energy future.

Today, local wind and solar could replace approximately 74 percent of the U.S. coal fleet with an immediate savings for customers. As the economics of producing local clean energy becomes more competitive each year, and the urgency of climate change calls for action now, we are inspired to take bold steps to ramp up the global solar energy workforce. In 2019, SEI focused on building partnerships, capacity, and infrastructure to help us join in leading the clean energy transition in 2020 and beyond.

During a visit by Lieutenant Governor Dianne Primavera of Colorado to SEI's campus, we shared our vision of a world powered by renewable energy and all that we are doing to build a skilled workforce for rapidly growing demands. We also touched on the strenuous employment and economic development conditions that many rural communities, particularly those with coal-operations closures, are facing.

While SEI is proud to see Colorado's Energy Plan highlight building strategically located wind and solar resources across the state—expanding the tax base, replacing local jobs, and lowering energy costs; we also know that “coal cost crossover” – where existing coal is increasingly more expensive than cleaner alternatives, is not without its hurdles. That is why SEI is dedicated to influencing transition at home, and then scaling our reach worldwide.

- Locally, our Solar Forward program continues building relationships across the rural West to usher in clean energy, create jobs, and foster resilience against climate change symptoms.
- Nationally, as partners in the 'Tribal Train the Trainer,' program, we're upskilling Native Americans to grow affordable access to energy, harness economic opportunities, and advance equity.
- Internationally, new solar training in the Middle East and Latin America has improved those solar markets through higher quality standards, personnel safety, and resilient power in rural spaces.

Whether we're rising to the call of Colorado's Energy Plan, or the urgent needs of global climate change; SEI is proud to have your support in taking bold steps forward to grow clean energy solutions.

Onwards,

Kathy Swartz, Executive Director





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## 2019 ANNUAL REPORT

**We envision a world powered by renewable energy.**

Our mission is to provide industry-leading technical training and expertise in renewable energy to empower people, communities, and businesses worldwide.

In 2019, we celebrate our successes educating, engaging, and empowering the next generation of solar professionals:

**6,141 individuals received technical skills training**

**7,164 learned about renewable energy**

**13,305 individuals accessed solar education**

**EDUCATE:** Our technical training helps people launch new careers and grow their careers in solar.

**14 solar trainings in Middle East,**

in partnership with Shams Global Solutions serving **220 people** from **8 countries**.

**2,362 Spanish speakers trained,**

with Advanced System Design & Battery Fundamentals course launched in Spanish.

SEI awarded **\$59,000**

in scholarships to **91** students from **13 countries**.

**ENGAGE:** We collaborate on local and global solar projects towards a brighter, cleaner future.

**811 students**

completed Large-Scale Ground Mount PV Installation safety training, with support from OSHA.

Solar in the Schools **expanded high school programs** from **Colorado to Montana**

with support from NorthWestern Energy.

Paonia's Campus offers **3 battery storage chemistries** for hands-on

learning including Nickel Iron, Lithium Ion, and Lead Acid batteries.

**EMPOWER:** We train decision makers, technicians, and end-users to spark renewable energy adoption in their communities.

**8 Puerto Rican Community Leaders**

in rural and loss-of-service areas following Hurricane María received SEI solar training with our P.R. partners Bosque Modelo.

The Solar Forward program totalled **1.5 Megawatts** of newly installed solar across **4 rural Colorado counties**. That's 3.8% of all Colorado's newly installed solar in 2019 with **1,000+ citizens** engaged.

Provided customized content in Solar Water Pumping to The Uganda Ministry of Water & Environment **broadly impacting rural Ugandan communities**.



# HOW OUR WORK TRANSFORMS LIVES



## **SAÚL GONZALEZ MENDOZA** Changing lives (starting with his own) in Puerto Rico

Saúl's solar path began when, after nineteen years of employment, he lost his Mechanical Engineering job at a Bio-pharmaceutical company.

Seeking a career that promised both opportunity for himself and to help others, Saúl completed two SEI Certificate Programs (in both English and Spanish) and is finishing his third. Seeking employment, SEI connected Saúl to the Footprint Project, an organization that is installing off-grid PV systems and providing solar training to energize areas most affected by hurricane María. He applied his solar knowledge to help Footprint maximize and extend the life of their PV system, implementing the changes himself.

Now Saúl serves the Public Awareness Committee of the Clinton Global Initiative Action Network on Post-Disaster Recovery, and he has started his own solar company, focusing on those who need solar the most.

***SEI's training was full of aha! moments for me. I learned all the details surrounding PV design - and doing so also removed a lot of the myths. For example: lead acid batteries, while cheaper and more abundant than lithium batteries, are not necessarily a bad investment if you use them on a multimode pv system - and this is important to me because I want to be able provide solar energy solutions that give access to those with low income, since they are often most affected by atmospheric phenomena like a hurricane."***

At SEI, we're dedicated to training the global solar energy workforce to empower people like Saúl to change the world. Saúl's story is an example of how solar education can help you help others—by creating the career and life you've imagined.



## **HAILEY REEVES:** Working in Solar to Address Climate Change

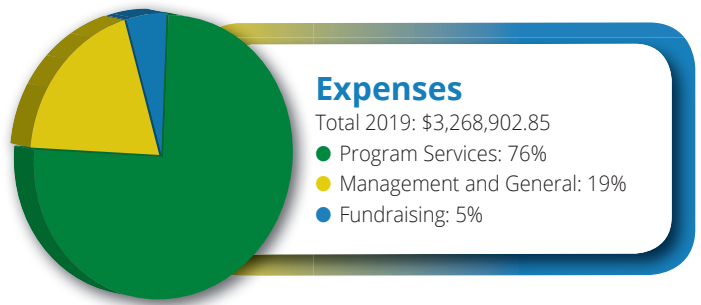
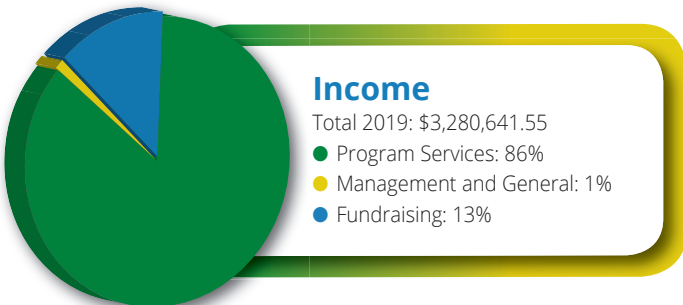
While studying Building Construction Technology at Coconino County Community College in Arizona, Hailey was introduced to SEI for the first time. "I knew I wanted to come to SEI for courses since I first encountered the Solar Electric Handbook at my community college trades program." Her path then turned towards land conservation, where she worked on grasslands restoration, fire management, and trail repair. Hailey loves working in the outdoors, and is compelled by work that addresses climate change; this is a common thread in her appreciation of solar.

Several years later, she took her first SEI training PV203, while also working as an instructor at Flagstaff area schools; she completed more training with PV303 & 304 courses. Utilizing her SEI education, she landed opportunities working for a couple small solar companies as a Field Technician, and System Designer.

Using the technical skills learned through SEI, she made her way into working on plan sets for permitting utility scale systems, as well as system performance testing; she now works with SEI's spinoff, SEI Professional Services as a Drafter.

"I'd heard great things about SEI's hands-on learning. Having the chance to work alongside experts, who were also women working in engineering or construction—that was really important. The SEI instructors are knowledgeable, humble, and optimistic."

For Hailey, her education through SEI is just the start of her renewable energy career trajectory. She remains excited to work in solar because it's tactile, and allows her to work outdoors, while staying on the path of addressing climate change. As she looks towards her future, she continues to diversify and deepen her investment in renewable energy education.



**WHERE WE WORK** Since 1991, SEI has trained **76,000 alumni**, from **145 countries**, by more than **50 instructors**, with **750 years** combined solar industry experience, and delivered educational resources to **over 110,000 people**; for a world powered by renewable energy!

