



2020/2021

**ENVIROLUTION**

PROJECT RECHARGE

CAREER QUEST

INTRODUCE A GIRL TO ENGINEERING DAY

## 2020 - 2021 ANNUAL REPORT



*To inspire and empower the next generation of leaders and workers who will drive the growth of a sustainable economy.*

3355 Downey Avenue  
Reno, NV 89503  
[www.envirolution.org](http://www.envirolution.org)  
775-229-8488

A 501(c)(3) Nonprofit Organization  
EIN: 208274660

**OUR MISSION** To inspire and empower the next generation of leaders and workers who will drive the growth of a sustainable economy.

**OUR VISION** To live in a world wherein the social, environmental, and economic spheres of our lives are prosperous and in balance. We envision an educational system that employs a inquiry- based and practical approach that inspires and prepares our youth for this rapidly developing sustainable economy.

## LETTER FROM OUR EXECUTIVE DIRECTORS

On behalf of Envirolution staff and Board of Directors we are thrilled to share with you our accomplishments for this 2020/2021 annual report. The theme for this past year was flexibility and grace! The continued COVID pandemic and the stress it put on our teachers, students and well everyone, pushed us to a new level of program development and accommodation. Our commitment to our teachers and students was integral as programming continued in both virtual, online and hybrid methods across all our partner school districts. We found ourselves dedicated more than ever to supporting teachers and their needs. Not just because our programs don't work without them but because the whole world suddenly realized how hard being a teacher really is and exactly how much we rely on them. That amount of pressure without the support and resources to sustain it, is why we sadly saw so many incredible educators leave the classroom. It's also why we launched our Feature a Teacher fundraising campaign, dedicated to honoring the incredible educators that have shaped our lives.

In order to improve our efficiency and skill as an organization, we realized we needed to focus on our personal and professional growth as well. This included individualized training for all levels of staff ranging from grant writing to sustainability leadership. As we continue to develop our internal resources, we are creating a nimble team that will be able to grow at a manageable rate while continuing to provide our communities with much-needed programs.

Flexibility was also shown by funders as programs were postponed or altered dramatically, forcing some staff to put on different "hats" within the nonprofit world by pivoting job responsibilities and tasks. This diversity in skills and true passion and commitment to our mission was evident and allowed us to keep 100% of staff fully employed during this challenging time. A fact that unfortunately many nonprofits or businesses cannot say.

As we look towards another exciting and busy year, we encourage you all to reach out to learn more about how you can get involved in helping us accomplish our mission. Whether that's volunteering to help put classroom materials together for teachers, speaking to students about your STEAM career or sponsoring our programs so they continue to stay free and accessible to all schools. We welcome all the support and sincerely appreciate it!

With gratitude,



**Vanessa Robertson, M.A.**

Co-Executive Director  
Programs and Partnerships



**Mike Robertson**

Co-Executive Director  
Operations and Technology



## FIVE YEAR STRATEGIC PLAN

1. **Objective 1:** Provide 500 science/math and STEAM teachers by 2024 with professional learning and on-going resources.
  - **Update 2020/2021:** Have provided 172 science/math and STEAM teachers with professional learning and on-going resources.
2. **Objective 2:** Engage and educate 100,000 students from diverse backgrounds in articulated STEAM and sustainability concepts by 2024.
  - **Update 2020/2021:** Engaged and educated 65,000 students from diverse backgrounds in articulated STEAM and sustainability concepts.
3. **Objective 3:** Increase student knowledge of, and interest in, STEAM and sustainability careers by 25-50% percent every year.
  - **Update 2020/2021:** Have seen a 41% increase in past years, but was unable to collect data due to pandemic.
4. **Objective 4:** Increase awareness and impact of STEAM and sustainability programs by 25% by interacting with community members across 30+ events every year.
  - **Update 2020/2021:** Increased awareness and impact of STEAM and sustainability programs by interacting with community members across 29 events.
5. **Objective 5:** Show long term support of annual programs by increasing annual funding by 15-20% and diversifying funding sources by 25-50% every year.
  - **Update 2020/2021:** Increased annual funding by 10% and diversified funding sources by 50%.
6. **Objective 6:** Expand Project ReCharge to 5 new cities (outside Nevada) by 2024.
  - **Update 2020/2021:** Started the preliminary steps for our expansion into Phoenix, AZ while acquiring teachers in Buffalo, NY and Grass Valley, CA as well.



Visit our website for more details on our strategies for meeting our goals by 2024



## FINANCIALS



**\$636,258**  
**TOTAL REVENUE**

Government grants: \$573,190  
Foundations: \$28,451  
Individuals: \$15,840  
Businesses: \$18,777



**\$628,808**  
**EXPENDITURES**

Programmatic: 75%  
Administrative: 22%  
Research and Development: 3%

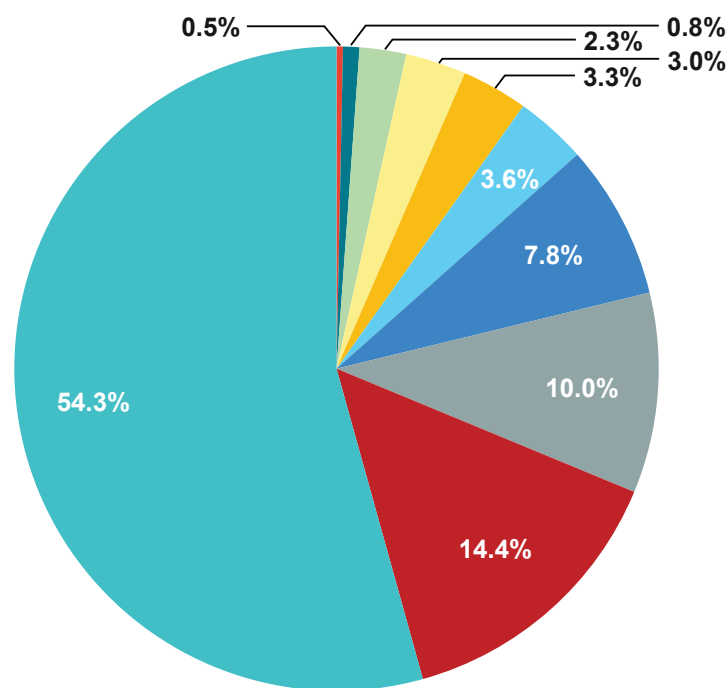


**26% REVENUE GROWTH**

We continued to grow our staff, programs and value in our communities resulting in \$132,778 more revenue in 2020 than 2019

### ADMIN EXPENSES

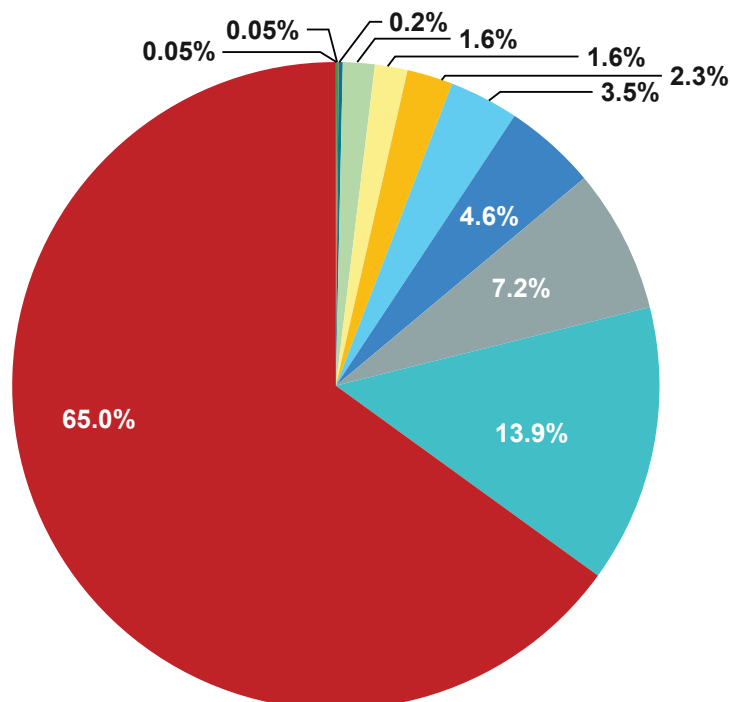
**TOTAL: \$139,426**



- Employee wages (administrative)
- Facilities/Rent/Utilities
- Professional services
- Insurance/licensing
- Continuing education/development
- Advertising/marketing
- Dues/subscriptions
- Office Supplies
- Food
- Travel

### PROGRAMMATIC EXPENSES

**TOTAL: \$469,719**



- Employee wages (programmatic)
- Hands-on materials
- Student projects
- Teacher stipends
- Curriculum development and trainers
- Americorps
- Food
- Travel
- Shipping
- Subscriptions
- Events

**R&D EXPENSES : \$19,426**

Curriculum development: \$8,521  
Hands-on student materials: \$4,044

Employee wages: \$7,065  
Food: \$146



PROJECT RECHARGE

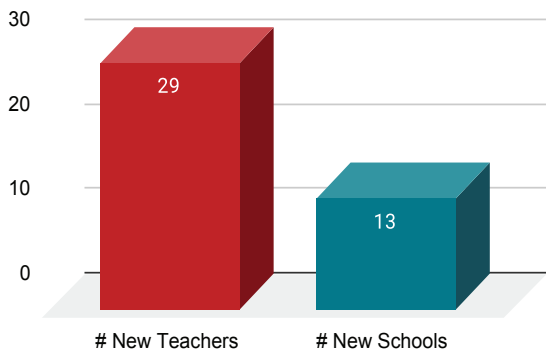


Project ReCharge is a hands-on, project-based Science, Technology, Engineering, Art and Mathematics (STEAM) curriculum and training program that engages students, teachers, and community professionals. This interactive energy education program provides valuable professional learning opportunities and classroom resources to teachers, who then empower 4th-12th grade students to become sustainability detectives focused on saving their home, school, and community money through energy efficiency and sustainability projects. Teachers and students alike are introduced to innovative lessons, energy data, and interactive dashboards as they learn about sustainability, energy generation, consumption, and efficiency.

2020/2021 IMPACT

**2,547**  
STEAM KITS

2,547 individual (1-to-1)  
STEAM material kits sent to  
teachers during the pandemic



**5** STUDENT  
PROJECTS

5 student projects to be funded and  
implemented (Home and School LED  
lights, recycling bins, and composter)



IMPACT TO DATE

**172**  
TEACHERS

Across 75 schools & 13 school  
districts have been provided with  
over 7,800 hours of professional  
learning.

**36%**  
STUDENTS

Showed a STEM knowledge increase  
in reducing energy use while 39%  
expressed a knowledge increase in  
alternative energy.

PROJECT RECHARGE - IMPACT TO DATE

65%



Percentage of Project ReCharge Integration by NV Counties

- 6% of ES, 94% of MS, and 45% of HS in Washoe County
- 29% of ES and 100% of MS and HS in Carson City
- 100% of MS in Nye and Churchill County
- 29% of ES, 100% MS, and 50% HS in Douglas County
- 8% of ES and 33% of HS in Elko County
- 100% of HS in Lander County
- 7% of MS and 10% of HS in Clark County



\$1.07M  
ENERGY SAVINGS

Based on 8,600+ MWh of energy savings as a direct result of student-driven sustainability projects.

=



737

This savings is equivalent to powering 737 American homes for one year.

1,615

This savings is equivalent to removing 1,615 combustion cars from the road.



\$283K+

In classroom materials distributed to 75 schools

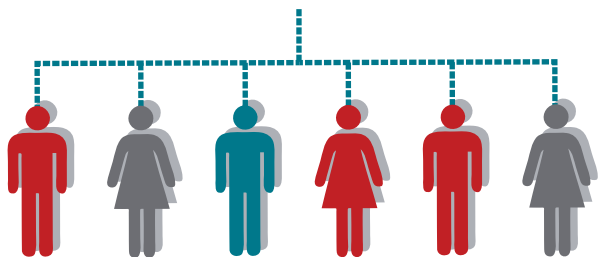


100%

Of 2020/2021 teachers would recommend Project ReCharge

STUDENT DEMOGRAPHICS (NV)

44.6%



- 44.6% are students from underrepresented communities
- 48% are female students

Represented Nationalities

- 2% Asian/Asian American
- 2.7% Black
- 32% Latinx
- 5.4% Mixed
- 2.5% Native American / Alaskan Native
- 54% White

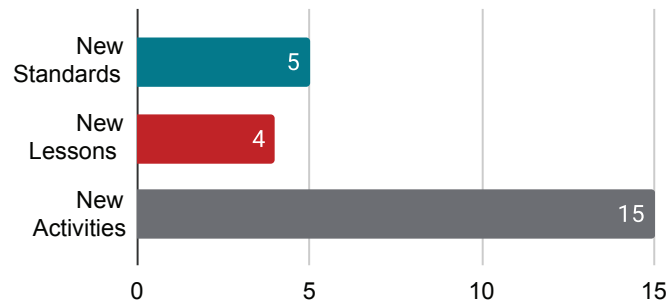
PROJECT RECHARGE - ADVISORY BOARD



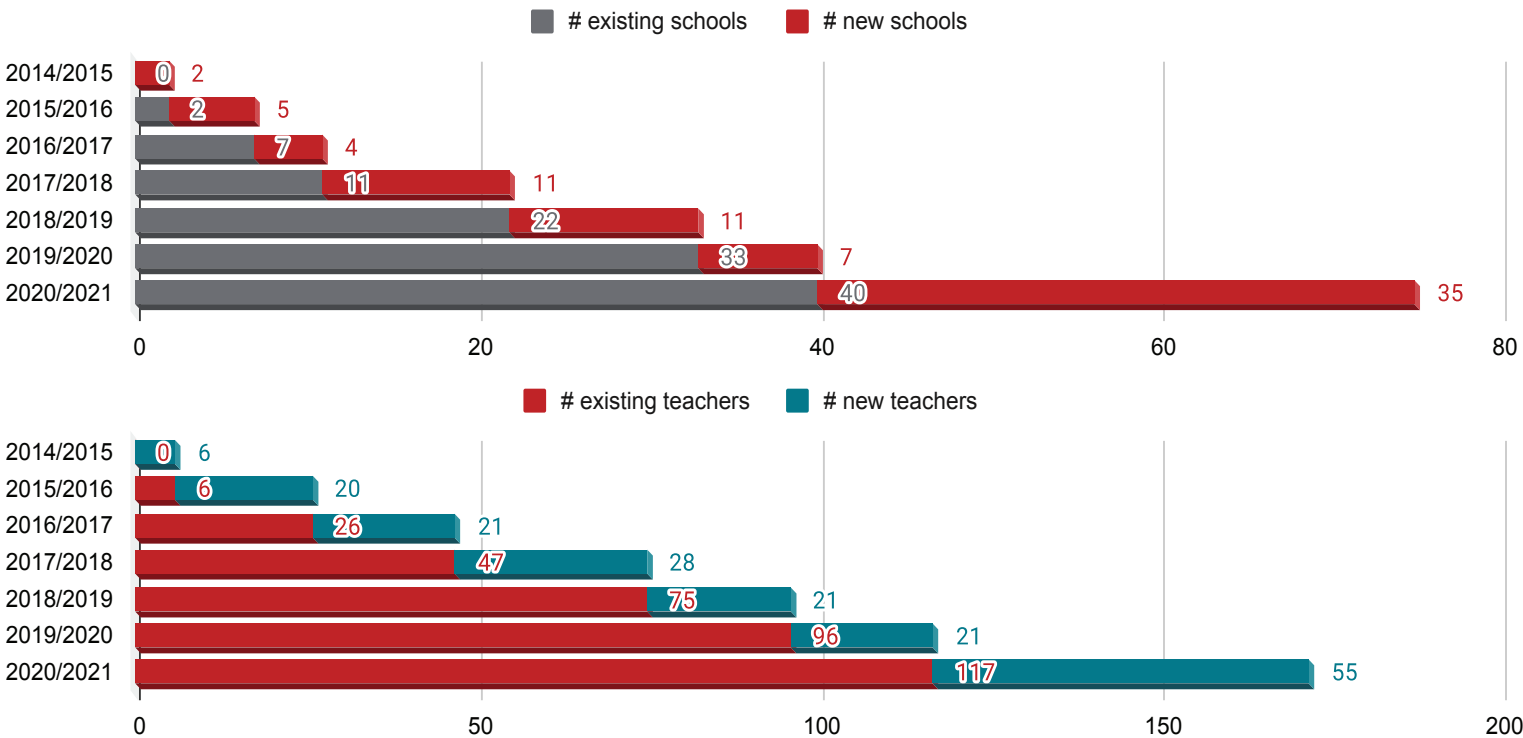
The growth and expansion of Project ReCharge have ignited the need to establish a new advisory board composed of 10 experts from the community. Over the next two years, these individuals will help guide the growth of the program in the areas of curriculum, professional learning, and support to teachers, and expansion of the program in new schools and states across the country.

PROJECT RECHARGE - CURRICULUM EXPANSION

Our dedicated curriculum developer and Master Teachers are committed to updating and adding new lessons and activities to meet the changing needs of our teachers and students as well as the requirements from our industry partners.



PROJECT RECHARGE - GROWTH





## CAREER QUEST



Career Quest is a collaborative program that connects businesses to students by exploring workplace STEAM education and sustainability-focused career opportunities. Through engaging presentations, industry tours, and hands-on activities, Career Quest introduces students to the benefits of STEAM education and local career opportunities available to them while connecting businesses to their future workforce. During the 2020/2021 school year, Career Quest provided virtual options and individually packaged hands-on kits, while in person programming was on hold. The success that we experienced by

providing virtual events has inspired Envirolution to continue virtual options for Career Quest as it allows students from all parts of Nevada the opportunity to engage in workforce development opportunities. All logistics are facilitated by Envirolution, significantly reducing the burden on schools and businesses while increasing its impact and efficiency.

### 2020/2021 IMPACT

# 10

## VIRTUAL EVENTS

Presented virtually by  
15 STEAM Guest Speakers

# 858

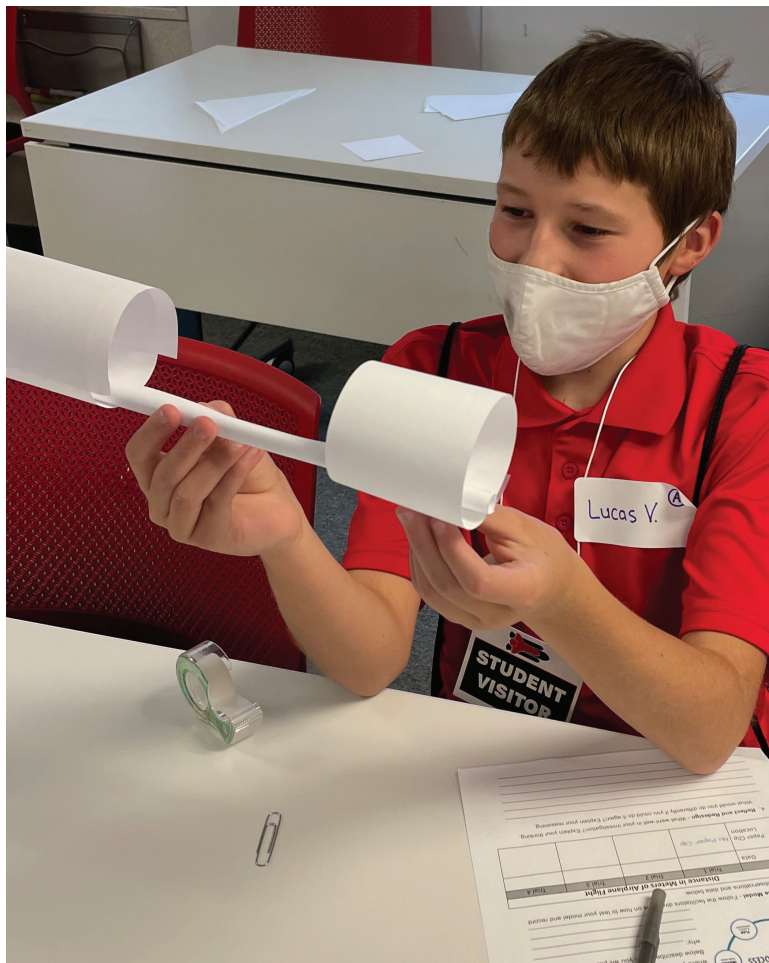
## STUDENTS

Engaged with unique workforce  
development experiences

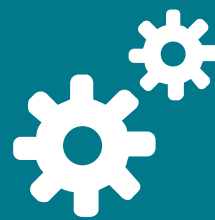
# 11

## PROFESSIONALS

Attended 2 STEAM Guest Speaker  
Development sessions



### IMPACT TO DATE



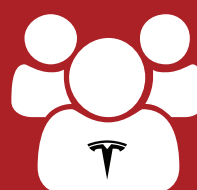
# 1,544

1,544 Students have participated in  
Career Quest at Tesla Gigafactory NV



# 35

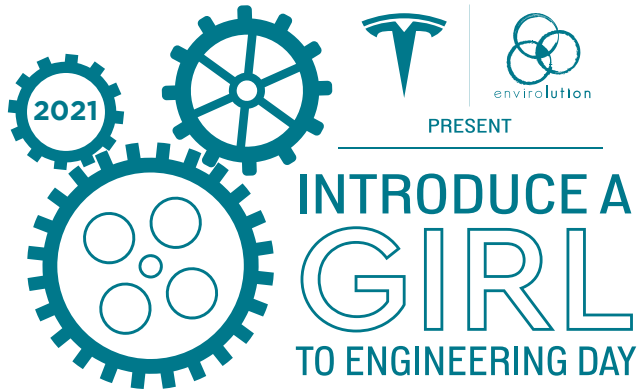
Schools from 11 school districts  
have participated in Career  
Quest at Tesla Gigafactory NV



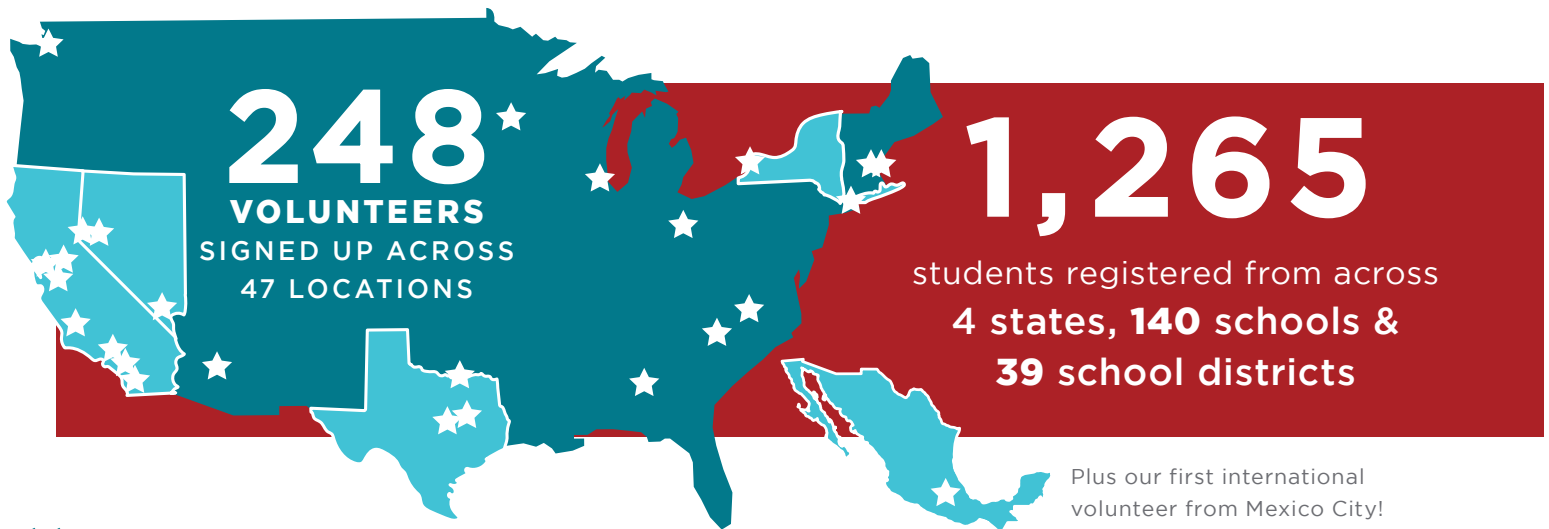
# 191

Over 191 hours have been  
volunteered by 26 Tesla  
employees during Career Quest

## INTRODUCE A GIRL TO ENGINEERING DAY



Introduce A Girl to Engineering Day is part of a national event dedicated to encouraging girls to consider a career in engineering. During our fourth year of partnership, Envirolution and Tesla welcomed over 1,000 students across the nation for this virtual event complete with 6 interactive videos and factory tours. Through 31 live and pre-recorded messages, participants received an exclusive look inside the innovative tech company, showcasing the variety of engineering careers and the inspiring women behind them. The day concluded with a hands-on activity highlighting the basics of the electric motor and the essential engineering design process.



*“Amazing! Loved this event so much - inspiring and such a great way to impact future generations. Thank you for all your hard work in putting this together!”*

NY Volunteer - IGED 2021



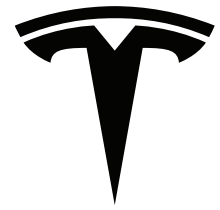
# 59%

There was a 59% increase in students' thoughts about becoming an engineer based on pre / post assessments



## RESEARCH & DEVELOPMENT

Thanks to support from Tesla and their K-12 Education Gift Fund through the Nevada Department of Education, Envirovolution has been able to start a number of new developments within our programs to impact more teachers, students, and community members. These new components have made it easier to bring our programs nationwide and have facilitated the ability to customize programs for the immediate needs of our partners.



TESLA



### Sneak Peek Professional Learning: Pilot year

During these mini sessions, teachers were given the opportunity to complete up to 15 hours of professional learning and participate in seven sessions where they develop their skills and learn about Project ReCharge lessons ranging from electrical generation, solar energy, wind energy, and more. Every teacher received all of the necessary materials needed to participate in the hands-on portion of the virtual training. These professional learning sessions are especially exciting as they are helping build the framework for the national expansion of Project ReCharge.



# 275 HOURS

of Training participated by 28 educators from 24 schools and 6 districts.



# 9 TEACHERS

4 teachers signed-up as a result and brought 5 additional teachers to our 2021/2022 complete PRC training.



**Claire Thibodeau**, 6th Grade Teacher - Simple Motor Assembly

### Seven Hills Spring Break Camp:

On April 5th-9th, Envirovolution partnered with Seven Hills Middle School in Nevada City, CA for their Spring Break Camp. Envirovolution provided 55 students with individual hands-on kits that included all the materials needed to participate in this virtual camp. Videos were created to assist students in making their own simple motor, balloon car, and paper bridge. This new model will be further developed and packaged, allowing groups throughout different regions to participate in hands-on STEAM activities that may be delivered over a virtual format.



COMMUNITY ENGAGEMENT

2020/2021 IMPACT



609

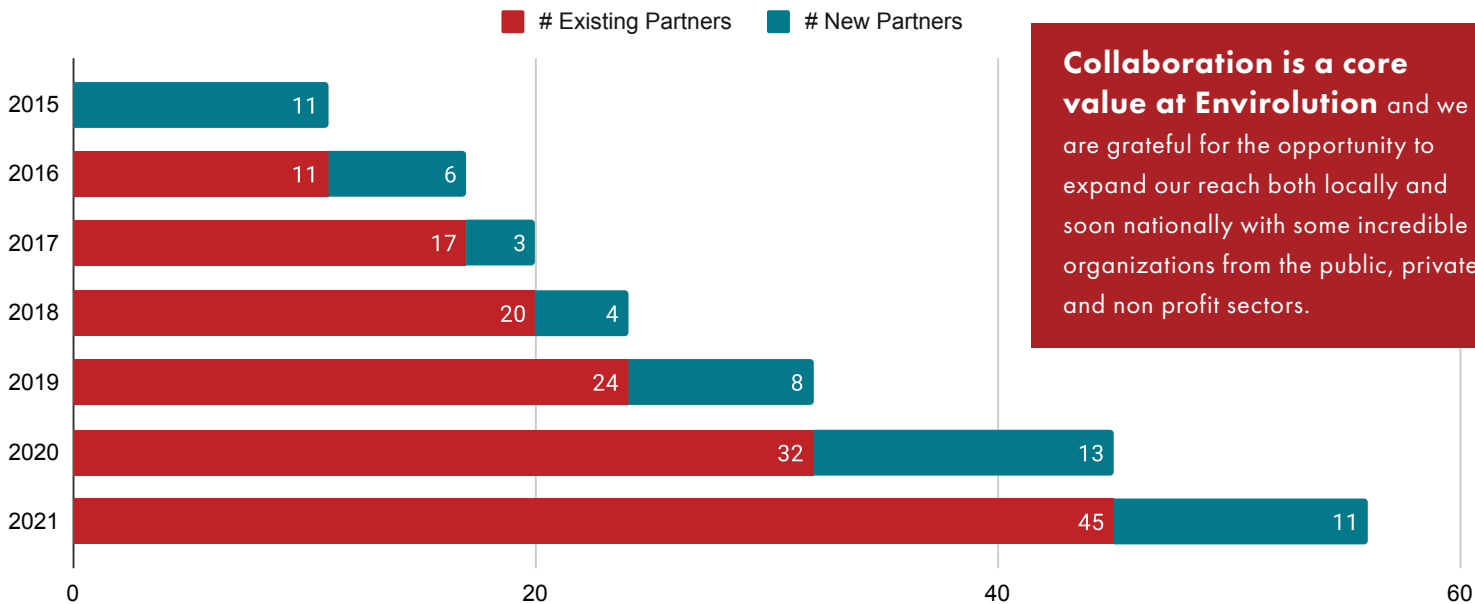
609 community members reached in 2021 through 19 events hosted or attended by Envirolution



93

Our volunteers have generously contributed 93 hours during materials preparation and park cleanups

PARTNER GROWTH



## TESTIMONIALS



*"The content is very engaging and connects students to the real world. I really like how it gives students a reason to take an active part in the health of the planet."*

– PRC Teacher, 2021



*"I appreciate what you do in supporting our teachers, students, business, and the planet! Well done packaging the three spheres! That is a great way to get it all done!"*

– PRC Teacher, 2021

*"It felt like I was there in person. It was so much fun exploring the Tesla Gigafactory and its inventions."*

– Student, Virtual Career Quest 2021



*"I had no idea Tesla had so many different fields and was part of so many different things and aspects of everyday life!"*

– IGED student, 2021

*"I think it's awesome how Tesla and Envirolution are hosting this event for girls like us because we know that so many women have been put in the shadows throughout history"*

– IGED student, 2021





## OUR TEAM

Engaging students and supporting teachers takes a passionate and dedicated team!



**Vanessa Robertson**  
Co-Executive Director -  
Programs and Partnerships



**Mike Robertson**  
Co-Executive Director -  
Operations and Technology



**Laura Scarselli-  
Hendrix**  
Project ReCharge  
Manager



**Aimee Frugoli**  
Programs Manager: Sustainability  
Expedition, Career Quest, IGED



**Mel Wade Munn**  
Office Coordinator and  
Bookkeeper



**Megan Weinhold**  
Curriculum Developer



**Chaja Hogeweg**  
Marketing and Design



**Brittney Gutierrez**  
Development  
Coordinator



**Nick Aneese**  
2020/2021 AmeriCorps -  
Education & Outreach Coord.



**Katie Rominger**  
2020/2021 AmeriCorps VISTA  
Educational Materials Coord.



**Courtney Moran**  
2020/2021 AmeriCorps VISTA  
Research & Evaluation Coord.



## BOARD OF DIRECTORS

**Mara Langer**, Board Chair  
Community Relations Professional

**Sylvia Scoggin**, Secretary  
WCSD 6-12 Science Program Coordinator

**Todd Markey**, Director  
Teacher, Washoe County School District

**Vicki Bischoff**, Director  
Vice president, Suncrest Builders

**Breann Koep**, Director  
Cost Manager, Tesla

**Rhonda Chavez**, Board Appointed Treasurer  
RHC Enterprises

## MASTER TEACHERS

**Leigh Metcalfe** - Reed High school

**Leanne Weinhold** - Retired from Depaoli Middle School

**Dustin Coli** - Wooster High school

**Kristina Hadley**- Swope Middle School

**Terin Kirk-Arnold** - Reed High School

**Todd Markey** - North Valley High School

**Natalie Wierzbicki** - Incline Middle School

**Michelle Hollis** - Carson Middle School

**Tammy Borremans** - Dayton Elementary School

**Mickey Smith** - Wooster High School

**Randie Orong** - Churchill County Middle School

**Cali Holman** - Heritage Homeschool



# UPCOMING PLANS (FOR 2021 / 2022)

## • Programmatic Plans

- Formal pilot expansion of Project ReCharge into Arizona and Colorado with the support of Apple Inc.
- Expand program opportunities for teachers in existing California cities
- Develop Project EDGE E-Bike Workshop for Fall 2022
- Add 3-5 new Career Quest business partnerships
- Offer Sustainability Expedition to Carson City school district students
- Expand IGED to other businesses and partners- reaching more girls in the community and across the country

## • Organizational Plans

- Bring on 3 New Board Members
- Incorporate additional equity and inclusion elements into the programs and organization with the focus on environmental justice
- Increase individual public donations by 20%
- Continue building system for standard operating procedures- allowing for continued growth and expansion of the organization
- Establish a streamline system for programmatic and organizational evaluation procedures including data collection, analysis, reporting and refinement.

# MEDIA PRESENCE



10/07/20

Energy Efficiency Day  
- Dayton Intermediate  
School lighting retrofit.



10/07/20

Despite Pandemic  
Challenges, Envirolution  
Seeks to Expand Project  
Recharge.



10/07/20

"Energy Efficiency Day"  
spotlights opportunities for  
Nevada schools



3/30/20

Envirolution &  
Wellness Scientist  
Lynell Garfield



8/30/21

Nevada Climate  
Initiative mention

# PARTNERS



TESLA



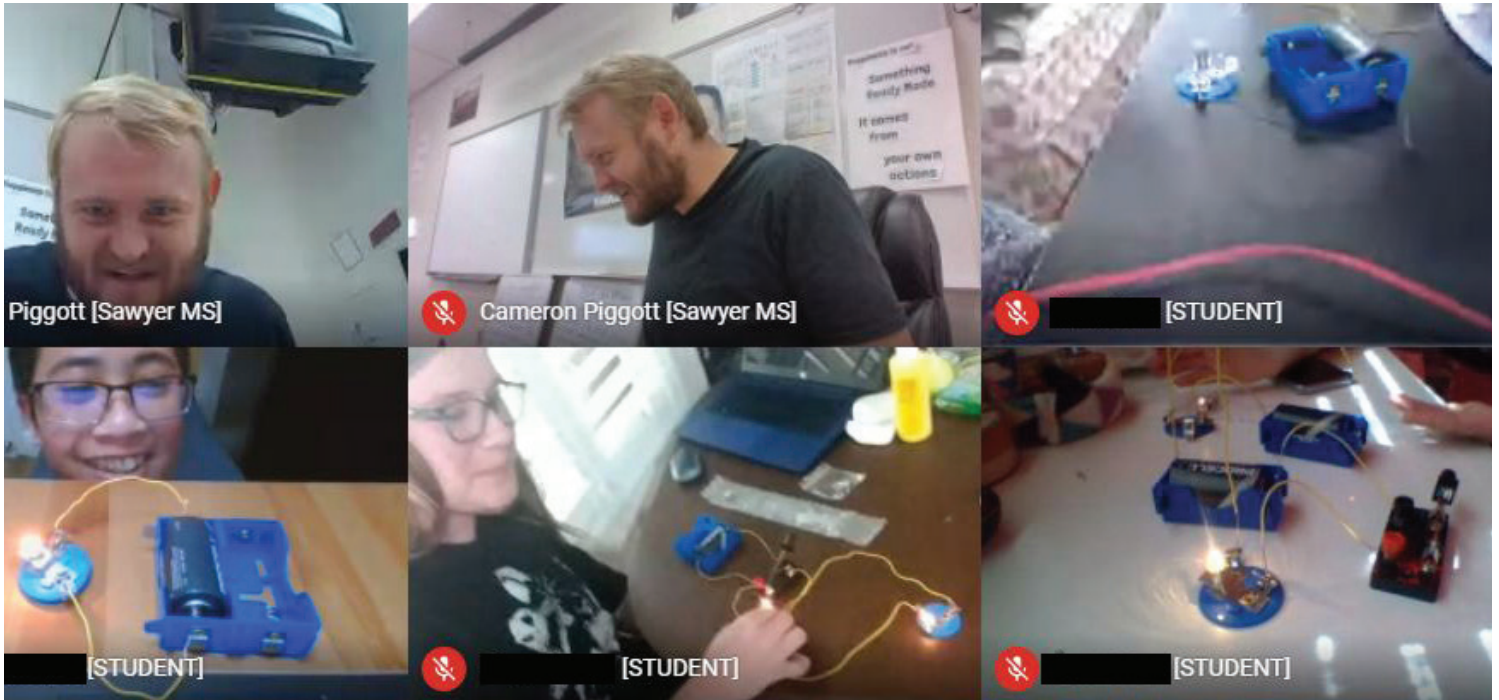
Microsoft



# NEW PARTNERS



## INSPIRING THE NEXT GENERATION



## OF LEADERS AND WORKERS



## WHO WILL DRIVE THE GROWTH



Digital Annual Reports Available at:  
[envirolution.org/annual\\_reports](http://envirolution.org/annual_reports)

### Social Media

Facebook: @Envirolution  
Twitter: @EnvirolutionORG  
Instagram: @envirolution

[envirolution.org](http://envirolution.org)