

Photo: Marin School of Environmental Leadership students speak in front of the County of Marin, presenting their iMatter Climate Report Card for the county. Their report leads to a Climate Youth Engagement Ordinance.

Community Transformation through Youth Leadership

A Case Study about Multi-Faceted Community Climate Engagement

SEI Organizational Overview

Strategic Energy Innovations (SEI), a nonprofit organization, inspires and empowers to advance solutions for a thriving, healthy planet. With over 20 years serving communities, and now reaching over 30,000 students each year, SEI continues to focus on building capacity for sustainable communities through its scalable programs and models. Focusing efforts on hard-to-reach and often underserved sectors, SEI projects have at their core climate education, training, and career development. From young students to professionals in transition, SEI programs engage, inspire, and empower local talent to directly address their community's ambitious sustainability goals and needs by leading projects with measurable environmental, economic, and social benefits.

Local Case Study: City of San Rafael

The Case Study below outlines the impact of SEI's interconnected programs on one community, and the story of how we can co-create a more sustainable future by empowering youth leaders.

"We are committed to engaging youth in finding creative solutions to our climate crisis. By working closely with SEI, we have been able to deepen our commitments and broaden our impact by inspiring and empowering environmentally conscious leaders. SEI's Zero Waste Schools Program is helping our community get one step closer to achieving zero waste. The School of Environmental Leadership is engaging high school students at many different levels in community climate leadership. SEI is also actively helping local businesses and government, including the City of San Rafael, create new green jobs through the Climate Corps Fellowship program. Collaborating together we are supporting the San Rafael community, and really all of Marin, to meet ambitious sustainability goals."

Cory Bytof, City of San Rafael Sustainability and Volunteer Program Coordinator

In San Rafael, SEI engages and supports local K-College students and Climate Corps Fellows who are working with local school districts, the county office of education, and local community colleges. SEI coordinates an expansive network of community members to support the transition to a sustainable community, while developing youth leadership and green career skills in San Rafael and many other communities. Through SEI's various programs, students are engaged starting in elementary school through their early workforce experiences.



Photo: Marin School of Environmental Leadership students meet with Governor Jerry Brown to discuss their proposition for a statewide Climate Report Card.

Since the inception of the **School of Environmental Leadership** (MarinSEL), a public high school designed and supported by SEI, MarinSEL has worked on a wide array of projects with the City of San Rafael. For example, students participate in Leadership and Environmental Action Development (LEAD) community projects during their freshman and sophomore years. Over the past eight years of working with the San Rafael community, students have led local resilient neighborhood initiatives, reduced waste by eliminating single use plastic, and successfully petitioned for school districts to move to 100% renewable electricity with local utility MCE. They have also created iMatter Climate Report Cards for the city and county, which have resulted in the a city-wide youth ordinance and the City of San Rafael committing to 100% renewable electricity.

In addition to community LEAD projects, students intern with a local organization their senior year of high school to lead a sustainability project. Students have interned at organizations such as the San Rafael Airport, MCE, Clough Construction, Marin County Office of Education, and Zero Waste Marin.

"I really cannot speak highly enough of the MarinSEL Senior Internship Program. We have had 3 interns in the last 3 years, and each one has been a huge help to us in conceiving, planning, and implementing our green business practices. They have helped us to achieve our Green Business Certification from the County of Marin, and were instrumental in developing a comprehensive 5 year Sustainability Plan for our company, which we project will save us over \$360,000 per year in reduced energy, water, and trash costs, and reduce our carbon footprint by 1.2 million tons per year. They have written press releases, conducted cost feasibility analyses, researched and purchased green products, created utility cost tracking models, and much, much more! And all of this is done at no cost to the employer, other than time spent mentoring and guiding the students. These kids are sharp, tech savvy, and want to make a difference in the world."

Bob Herbst, Manager of the San Rafael Airport

In addition to SEI working with high school students through MarinSEL, SEI's **Energize Schools** program also works with San Rafael's high schools. For example, SEI has led in-classroom and field activities at San Rafael High School to analyze human and climate impacts on our local watersheds, including building watershed models, traveling to San Rafael Creek to observe impacts to the waterway and test water samples, and utilizing ArcGIS to build watershed maps with layers incorporating human impacts to watersheds.

The City of San Rafael also led a three-county effort to install solar panels on public facilities through SEI and Optony Inc.'s **Sustainable Energy and Economic Development (SEED) Fund**. The SEED Fund is a unique opt-in program to empower agencies to evaluate and participate in a regional group purchase of solar PV projects. A key feature of the program is that it leverages revolving funds to defer upfront allocation of funds for project planning, site assessments, or procurement activities; rather these costs will be paid back through solar contracts only if solar is viable for the facility, so participants can fully evaluate their opportunities and costs before committing any resources. SEI supported the City of San Rafael to lead 21 public agencies in the collaborative purchase of 4.3 MW of solar in the region. Climate Corps Fellows participated in the education and recruitment of these public agencies.

"By adding solar to City buildings, we have increased the City's use of renewable energy and reduced our greenhouse gas emissions."

Damon Connolly, San Rafael City Council
Member and MCE Board Chairman

The City of San Rafael also hires a **Climate Corps** Fellow each year to support the city on their energy, water, zero waste, sustainable transportation, and community engagement efforts. Climate Corps is a sustainability workforce development program that identifies meaningful climate action projects with local governments, schools, nonprofits, and for-profit organizations, and recruits talented, passionate emerging professionals to lead these projects for a 10-month term of service. San Rafael Climate Corps Fellows have worked with businesses to help implement a foam ban ordinance and reusable bag ordinance, and have also implemented a

single-use plastics reduction campaign. Recently, Climate Corps Fellow Alex Montes provided 115 apartments with recycling, helped nine businesses switch away from foam products, had 20 restaurants pledge to reduce plastic, helped over 40 grocery stores to be in compliance with plastic bag ordinances, hosted one bulky item collection event, and diverted over five tons of waste from the landfill.



Photo: City of San Rafael Climate Corps Fellow, Alex Montes, presents project outcomes at the annual Climate Corps Symposium.

Other local organizations like the local utility MCE, College of Marin, and the San Rafael City School District have also hired Climate Corps Fellows to support their environmental and climate protection initiatives. MCE Fellow Justin Marquez helped enroll over 470,000 new customers in MCE's 61% renewables program, and 1,388 customers in MCE's 100% renewable program, gave 31 community presentations, and attended over 150 community events to speak to residents about MCE's renewable energy options.

Climate Corps Fellows working throughout the community work in collaboration and coordination with one another, SEI K-College students, and local civic and business leaders to accelerate sustainability initiatives. The Climate Corps fellowship program has an 80% success rate of Fellows securing full time employment in the sustainability sector or attending a relevant graduate degree program within three months of completing their fellowship.



Photo: The 2017-18 MCE Climate Corps Fellows.

Climate Corps Fellows at the College of Marin also work within the SEI **Energize Colleges** program. The Energize Colleges Fellow at College of Marin is working with faculty to develop new courses, certificates, and degree programs that will inspire and empower students to enter the green workforce. The Energize Colleges programs creates paid internships for current college students to lead sustainability projects on campus and around the community. The 2017-18 College of Marin Fellow, Danielle Robinson, increased sustainability visibility on campus through over 600 student interactions and over 1,000 interactions with stakeholders in sustainability, equity, and clean tech. She helped create 15 internship positions, which resulted in 650 student intern hours in community organizations. Danielle also hosted the first sustainability mapping workshop focused on cross-disciplinary sustainability education with 28 faculty and staff in attendance.

The City of San Rafael provides a case study for how a broad array of programs and collaborators can cohesively work together to transform the sustainability policies and behaviors in a community. SEI has helped San Rafael to expand the human capital for sustainability engagement through youth leaders and Climate Corps Fellows who are eager and equipped to get work done.

Regional Impact

The ecosystem of SEI programs: Energize Schools, Zero Waste Schools, the School of Environmental Leadership, Energize Colleges, Climate Corps, and SEED work together in communities to transform policy and environmental behavior through youth leadership, while developing a strong network of stakeholders, leaders, and experienced sustainability professionals.

SEI partners with EAH Housing, based in San Rafael, to implement sustainability initiatives within EAH Housing's affordable housing properties. Throughout SEI's partnership with EAH Housing, SEI has led the initiative to set up all 104 properties in the EPA's online benchmarking tool Portfolio Manager; developed an effective protocol for individual and portfolio-level affordable housing developments to achieve over \$14,000 in savings per year; brought together groups of interested elementary and middle school students to form Green Teams and run a 2-month water conservation competition; and designed and implemented a Water Contest challenge, engaging more than 6,500 residents and saving more than seven million gallons of water over a three month period.

The School of Environmental Leadership currently has one flagship school at Terra Linda High School in San Rafael. As of 2018, four classes have graduated from the MarinSEL. On average, 85% of graduating seniors have attended a four-year university and the Class of 2018 received over \$520,000 in merit scholarships and institutional grants.

"High school can be a really challenging time and the MarinSEL program not only empowers me to grow as an intelligent leader and empathetic person, but also provides support through the struggles of the intense academic and social demands of high school. In this way, MarinSEL provides a learning style that cannot be obtained in a general high school."

Cameron Evans, Class of 2019

National/International Impact

The SEI **Energize Schools** Program has worked with over 230 schools and over 70,000 students on sustainability projects and lessons focuses on topics such as climate change, watersheds and public water systems, green building, solar design, aquaponics, biomimicry, energy auditing, and more.

"The SEI program, specifically the Energy Audit lessons and tour of the SDG&E Energy Innovation Center, helped my AP Environmental Science students this year. All of my students said that the AP Environmental Science Test Free Response Questions were super easy thanks to the lessons and the field trip."

Megan Jones, Teacher at Mt. Carmel High School

The SEI **Energize Colleges** program serves as a catalyst for campuses to provide for student career exploration and deeper learning through new and expanded courses of study, and applied learning through internships. Through Energize Colleges, SEI has supported more than 300 student internships; 20 post-baccalaureate fellowships; over 40 faculty projects to develop new sustainability courses, certificates and degree programs; and meaningful college student green career connections with 15,000 high school students.

"This has been a wonderful experience for me. I feel that these past few months have been the most educational months of my life because I was learning both in and out of the classroom. My mentors offered great guidance throughout the internship and always encouraged me to put academics first. After seeing the green industry in action first hand, I have even begun to reevaluate my career choices, and am considering pursuing a profession within the realm of environmental sustainability now."

Justin Yu, Energize Colleges Intern, Skyline College

Over 350 **Climate Corps** Fellows have served since the program's inception. This has resulted in over 450,000 hours of Fellow climate project leadership at host organizations. The work of Fellows has prevented the equivalent of over 30,000 cars from being driven for one year, diverted over 250 million pounds of waste, and saved enough water to serve over 13 million California homes. In addition to the sustainability work Fellows do during their fellowship, over 80% of Fellows continue to develop careers in the sustainability field after they have completed their fellowships.

"Climate Corps has been an amazing first career step for me. I appreciate the time Climate Corps gives its Fellows to pursue professional development opportunities. This fellowship helped me build a great professional network right out of college and has given me the knowledge and experience I need to confidently develop myself as a young sustainability professional. Through this experience, I reaffirmed my passions for education, environmental health, and sustainable living. The invaluable skills and connections I have gained through my fellowship will greatly serve me as I move onto being a Sustainability Specialist for the County of Alameda, where I will be leading waste management projects."

Stacey Lee, Climate Corps Fellow at UCSF

Point of Contact

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Websites

SEI School of Environmental Leadership **Energize Schools Energize Colleges** Climate Corps

SEI Climate Education and Workforce Development Programs



School of Environmental Leadership:

The School of Environmental Leadership ENVIRONMENTAL (SEL) is a four-year comprehensive high-school program designed to develop environmental leaders. During their time in the program, students focus on developing

four critical 21st Century skills: Communication, Collaboration, Critical Thinking, and Creativity. Classes are focused on project-based, experiential learning about real-world environmental problems. By integrating academics, leadership, career skills, project management, and community service, we provide students with preparatory college and work experiences to catalyze their environmental leadership career.



Energize Schools: The Energize Schools program supports project-based learning and community-based sustainability projects for K-12 students. Our program engages, inspires, and empowers students to pursue sustainability careers through curriculum, teacher training, classroom

instruction, community projects, and resource conservation competitions. Energize Schools also hosts Green Career Conferences to excite, inform, and prepare students for future careers in the environmental field.



Energize Colleges: The Energize Colleges program helps build a highly qualified energy and sustainability workforce. We partner with colleges and universities to provide academic and internship opportunities for student sustainability career exploration, and resume and skills development.



Climate Corps: Emerging climate professionals learn cutting-edge professional and leadership skills by working with communities and organizations to develop and implement projects that address climate change. Host organizations receive the support of

qualified, passionate, dedicated Fellows, who gain expertise in sustainability project implementation.