



Berkeley Energy and
Resources Group

Commencement Guide Spring 2022

Berkeley Energy and
Resources Group

Graduating Students

Class of 2022

DOCTORS OF PHILOSOPHY

Anna Brockway, Bodie Cabiyo, Jose Daniel Lara, Isa Ferrall, Adam Hanbury-Brown, Anushah Hossain, Jonathan Lee, Sophie Major, Samira Siddique

MASTER'S DEGREES

Nabig Chaudhry, Nia Novella Jones, Arthur Mallet Dias, Sean Kelly, Joyceline Leonard Marealle, Priyanka Mohanty, Molly Oshun, Sasha Ponomareva, Luke Sherman, Liyang Wang

ENERGY AND RESOURCES MINOR

Baran Abali, Catherine Bao, Brianna Betts, Lilly Bollinger, Avery Byrne, Issy Cassidy, Maria Almeida de Castro Lima, Waldo Chavez, Elliot W Dorow Hovland, Edward Hsu, Patrick Knauer, Megan Luo, Grace Martin, Eli Nash, Alyssa Plascencia, Lillian Zhang, Li Zou

SUSTAINABILITY MINOR

Minnie Chen, Jackie Lyn Copfer, Danielle DeWitz, AnnMarie Joan Lewer, Joanne Magano, Veronica Paul, Elizabeth Sherstinsky, Alexandria Suba, Cody Tran, Hillary Thuy Nhien Tran, Ethan David Gutman Weiner

Class of 2021

DOCTORS OF PHILOSOPHY

Yoshika Crider, Stephen Jarvis,
Julia Katalin Szinai

MASTER'S DEGREES

Gbemisola Akinsipe, Jess Carney,
Karina French, Annelise Gill-Wiehl,
Oliver James, Jess Kersey,
Sangcheol Moon, Hikari Murayama,
Reem Rayef, Edem Yevoo, Anna Yip,
Cristina Crespo Montanes,
Margaret McCall, Clayton Munnings,
Michelle Sims

Class of 2020

DOCTORS OF PHILOSOPHY

Richard Barnes, Gordon Bauer, Jessica Goddard,
Patricia Hidalgo-Gonzalez, Christopher Hyun,
Veronica Jacome, Niklas Lollo, Lana Seigner

MASTER'S DEGREES

Ella Belfer, Micah Elias, Jenny Rempel,
Kelsey Alford-Jones, Jess Carney, Jack Chang,
Nickolas Clarke, Nancy Freitas, Jessica Katz,
Tzipora Wagner, Rachel Ward, Cody Warner,
Marshall Worsham

ERG 2022 Master's Degree Recipients

Nabig Chaudhry

Master's Project: Changing Climate Impacts: Analytics to Characterize Extreme Temperature Events in California

These past two years at ERG have been a redefining, beautiful, and compelling journey. It's hard to imagine how it all started and where I, and so many others, are disembarking today. I'm so grateful to so many who have been anchors of support, friendship, and mentorship during this time. Though this graduate school experience with COVID-19 and remote learning has been anything but what I expected, I'm thankful to have had such a kind and generous space to grow over these years.

I want to give many, many thanks to the ERG faculty, especially Andy, David, Duncan, Isha, and Dan, and the ERG staff Kay (now retired) and Candace. I also want to shout out to my (now) Twobies cohort, who have been the best companions throughout this journey that I could have hoped for -- much love to all of you. And lastly, to all the other pillars of strength in my life, especially my friends and chosen family.



Nia Novella Jones

Master's Project: Dear White People: Recommendations to Successfully Attract, Recruit, and Retain Minoritized Students in Green Energy

Wow, these last few years have flown by entirely too fast! I first give honor to God for keeping me throughout this journey. From blessing my mother and I as we drove across the country in the middle of a global pandemic to keeping my spirit filled with gratitude despite the virtual learning pivots. Thank you to all of my outstanding professors, mentors, and peers that I have connected with along the way. Special thanks to my advisors Dr. Maya Carrasquillo and Margaretta Wan-Ling Lin <3 ERG - You are ONE of a kind! I wouldn't trade the memories or experiences for anything in this World. I am forever indebted and will be back for as many alumni events as I can. Thank you to entire ERG community for embracing me as my full self.



ERG 2022 Master's Degree Recipients

Arthur Mallet Dias

Master's Project: Promoting Entrepreneurship for Sustainable Development: A Review and Evaluation of Enterprise Facilitation

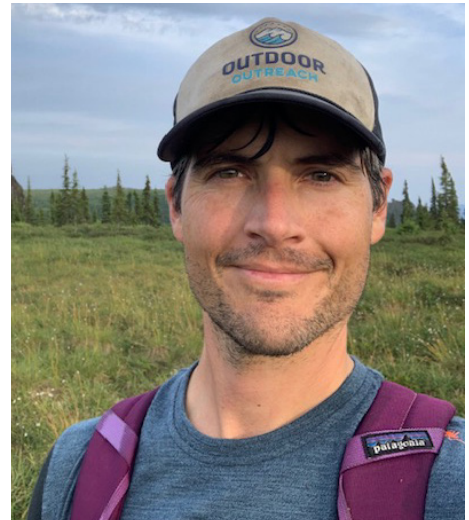
ERG was never a final goal, it was always a means. I moved from Brazil to California to expand my knowledge and opportunities in sustainability. I leave as a more capable professional and deeper thinker of sustainable development. To all the community and support I found along the way, I am eternally grateful.



Sean Kelly

Master's Project: The Kelp Catalyst: Marine Aquaculture, Food Security, and Local Economies in Alaska

I came to ERG a scruffy educator. Over the course of the experience, I learned a lot, especially about breakout room dynamics. I am leaving a father, and hopefully, a better person. I'm grateful to my brilliant cohort and access to mentorship at ERG and the larger Berkeley community. Thank you!



Joyceline Leonard Marealle

Master's Project: Business strategy for Micro-grid Providers in California

I grinded,
I mastered,
I graduated,
I am really excited to complete another milestone in life.
Special thanks to God, my family and friends for their endless support.
Now, off to making the world more sustainable!



ERG 2022 Master's Degree Recipients

Priyanka Mohanty

Master's Project: What Are Best Practices For A Rapid And Just Energy Transition?

I came into ERG at a very strange time – COVID was raging, I had left a job that had put me on the path of working on climate issues, and I was diving into a very large, intimidating space filled with potential learning. Learn I did, and the past two years has been an incredible journey of receiving knowledge, building analytical and research skills, and meeting a lovely community of people who are fighting for a habitable, sustainable, and better world. I came into ERG an eager student, with a background in economics and some work experience in climate smart development, and I leave an interdisciplinary, technical, well-versed, climate practitioner. I feel equipped and galvanized to work on the array of issues that face us, from renewables, to electrification, wildfire, agriculture, water, and central to all of it, the just transition. I want to thank ERG for being a program that is one in a million, unique in structure and filled with rich tradition. I feel lucky to have been part of the ERG legacy, and I hope to make you proud. Thank you to my advisor, Professor David Anthoff, for your humor, guidance, and ever-steady outlook. Much love to my sweet cohort pals who collectively fared the rough seas of COVID graduate school, as well as my newbie friends who have brought ERG back to life. Thanks to Kay Burns and Anaya Hall for convincing me to come to ERG. Finally, huge thanks and much love to my sweet partner, Andy, my lovely friends, and my ever-supportive parents, who have kept me grounded throughout this program.



Molly Irene Oshun

Master's Project: Putting biodiversity on the map: exploring spatial dimensions of California biodiversity for conservation planning

Ours was a funny journey, sweet Covid cohort. What gratitude I feel to each of you for muddling through together with grace, good humor, and committed fellowship. I give particular thanks to those older ERGies who reached across the social distance to help us find our way, the professors and advisors who generously shared their time and compassion, and particularly, the dear friends who have buoyed my spirit over long walks and sweet treats. Thanks to ERG admins for helping me pursue goals of scholarship and motherhood in tandem. I am grateful to depart here with a more expansive and nuanced view of how to steward my home community through cataclysmic transformation. What more could one hope to glean? Thank you to my mother, father, partner, cat, and the wild little mammal in my womb for the inspiration, nourishment, and boundless love. You are the reason we are here. May we find our way together.



ERG 2022 Master's Degree Recipients

Sasha Ponomareva

Master's Project: Alternative Futures for Composting in California

Feeling grateful for a strange and sweet two years at ERG, and extra grateful for ending on a hopeful in-person note. It is a special bunch that says “yes” to a grad school adventure mid-pandemic, and I feel lucky to know and be part of this rad crew. The post-class chats, healthy hikes, late-night working giggles, estimating needles on trees, river floats, and appreciation for those who love this planet will stick. As will the continued (and reinvigorated) love for soil, compost, this state, resilient ecosystems, and good governance. Thank you to ERG - its students, staff, faculty, for making this space to grow. Grateful also for community in all parts of my life - you know you are.... thank you for reminding me to breathe, sweat the small stuff less, go to the ocean, squeeze loved ones. Onward!



Liyang Wang

Master's Project: Achieving a climate-resilient electrical grid: beyond optimality, searching for robustness & embracing uncertainty

First, a huge congratulations to all the graduating ERGies!!

I truly didn't know what to expect when I embarked on the master's program at ERG amidst a pandemic. However, I was quickly blown away by the kindness, brilliance, hilarity, and resilience of my cohort and the greater ERG community. It took a lot of searching in the dark and going down countless rabbit holes, but I came out completely transformed and somehow with more questions than answers. These past two years at ERG have altered my worldview, recalibrated my theory of change, and expanded my passion. I am beyond excited to continue my journey here in the fall as a PhD student amongst all the incredible humans of ERG.

Huge thanks to my advisors, David Anthoff and Andy Jones; your encouragement, guidance, and patience have helped me more than you know. I also owe a debt of gratitude to Anna Brockway; your support and wisdom have inspired me. Many thanks to my amazing cohort for all the laughs, long chats in Giannini, and wonderful memories. Finally, thank you to my friends and family, who always provided a shoulder to lean on when I needed it. I couldn't have done this without everyone.



ERG 2022 PhD Recipients

Anna Brockway

Dissertation: New challenges facing electric power systems: Integrating technical realities and policy goals

I came into graduate school with a lot of questions, and I am grateful that ERG taught me how to slow down a bit and figure out how to go about answering them. I will forever cherish the time that I got to spend immersed in ERG and surrounded by this incredible community. Thank you all for asking the hard questions, for always keeping an open mind, and for keeping empathy and justice front-and-center while grappling with some of the most critical challenges of our time. I thought I knew what I wanted to do in grad school—and I did do some of it—but more importantly I was invited to discover and work on questions that I couldn't have previously articulated. I was empowered to listen, to add layers, and to forge forward even when it was difficult. Of the incredible faculty who offered their guidance, patience, and unyielding faith, I want to especially thank Duncan Callaway, Lucas Davis, Andy Jones, Steve Weissman, and Sascha Von Meier. Each of them has gently pushed me forward and helped me build a research practice and dissertation out of many disparate threads. I am profoundly grateful for the chance to have done this at ERG and at Berkeley, and I look forward to carrying the ERG spirit forward into the next phase.



Bodie Cabiyo

Dissertation: Accounting for the climate benefits of harvested wood utilization

I came to ERG to be a social scientist but realized that I'm compelled by all aspects of complex problems. For better or worse, ERG nurtured my tendency to be a jack of all trades. Six years later, I still feel like a master of none, but I have learned how to apply my dilettante nature in a meaningful way. Education has been a reliable ladder throughout my life, and I'm so grateful to ERG for providing the final rungs.

I've had many mentors over the last six years -- far more than I could thank here. Special thanks to: Dan Sanchez for saving me from a lifetime of working on clean cookstoves. Lara Kueppers and Matthew Potts for keeping me balanced between the worlds of ecology and management. Cathy Koshland for proving the importance of curiosity. Isha Ray for holding my hand while I pretended to be a social scientist. David Levine for making me think and write clearly. Kay Burns for showing me the power of empathy in professional settings. My family for keeping me grounded. And Esther for being my Light of Eärendil along the way.

Like ecology, ERG is messy and beautiful. In this moment, I am overflowing with gratitude to this incredible community of a program. I am not only a better thinker but, unequivocally, a better person because of it.

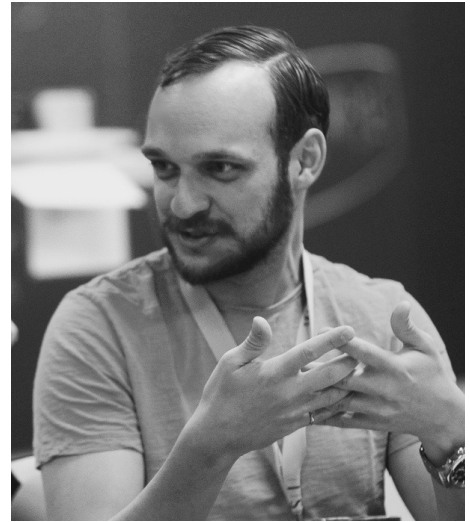


ERG 2022 PhD Recipients

Jose Daniel Lara

Dissertation: Modeling and Simulation of Electric Power Systems with Large Shares of Renewable Energy

Coming to Berkeley was one of the greatest dreams I ever had. I knew I wanted to become something more than an engineer and coming to ERG gave me the opportunity to pursue many ideas, fields and ideas that probably I couldn't have in other places. As always the diversity of ideas in ERG will continue to be its main strength.



Isa L. Ferrall

Dissertation: Quantitative approaches to energy justice: examining fair access to reliable electricity

While the past six years have taken a bit more than one erg's worth (a house fly doing a pushup) of energy, I can't imagine a better place to have spent every second of it. Both I, and ERG have changed a lot over the years. I started my ERG career as an engineer interested technology solutions for energy access in East Africa and I am leaving as an energy justice scholar applying data science to inform equity policies. ERG added four new faculty and moved buildings; I added a pup and a parter to my life and moved (several times). Together as a community we weathered the change in administrations, drastic funding cuts, and a global pandemic. ERG has changed me for the better in so many ways, and I will always cherish the friends, connections, and memories made here. I am very glad that "you never 'stop' being an ERGie." It's nice to know that some things will never change.



ERG 2022 PhD Recipients

Adam Hanbury-Brown

Dissertation: Predicting the future of forests under global change: the critical role of regeneration processes

Thank you Lara for six years of incredible support, mentorship, and education. Working with you has been inspiring. At the end of this rewarding journey it feels good to be able to call myself an ecologist; forged by the best. I'll do my best to apply this training and experience to make a positive impact on the stewardship of California's beautiful ecosystems. Thank you to Kay for all the admin wizardry and reassuring presence. Thank you to the ERGies who came before me and helped prepare me for quals and the dissertation. Thank you to my lab group for your amazing feedback on my research over the years. Thank you to my beloved cohort for being there in the same boat every step of the way. Congratulations to everyone graduating today. Well done all of you!



Anushah Hossain

Dissertation: Building a Multilingual Internet: The View from South Asia

I can't believe I'm at the end! I woke up one day and suddenly the finish line was in sight. The last two years of the pandemic went by in a blur, and they were what I imagine the whole experience of grad school must feel like for a student in almost any other department – working in isolation in a vague, angsty haze. But these last few months back at ERG have reminded me what a joyous, silly community I've long had the privilege of being part of, and I feel so happy to see that its spirit has somehow carried on despite the break. I have so many sweet memories to look back on – from dreaming up the finerthings listserv with Ergies in the back of a car up to Dick Norgaard's house; to feeling the thrill of presenting in PhD seminar to rooms full of sharp, curious people; to sneaking naps on every couch at ERG I could find (there were at least four).

Many thanks to everyone who has been part of this journey the last six years. Thank you to my cohort for being such wonderful, kind companions. Thank you to my committee for instilling in me the confidence to get through many periods of uncertainty. Thank you to Kay Burns for offering a place I could always turn for support.

Annaji, Shona, I'm so grateful that you are my family. I hope this makes you proud. Annie and Kat, my forever roommates, thank you for weathering every emotion I've ever had about grad school, and for editing everything I've ever written. Esther, I'm so glad we became close in 100b that fated semester. I'm going to set the calendar invite for E&A research/therapy to repeat for...ever. Jonathan, thank you for showering me with so much love during this hardest last leg. Dada, Nanu, and Nanabhai, thank you for your endless duas. Nanabhai, I wish you could be here today. This degree is for you.



ERG 2022 PhD Recipients

Jonathan Lee

Dissertation: Energy Management in Community Microgrids

When I was deciding which program to enroll in and talking with Duncan about the familial feeling I had meeting other students at visit day, he told me, “Well ERG sells itself on its students; it always has.” Not to take anything away from our professors or the caliber of our work, he’s definitely right, and it’s a good thing I went with my gut on that one. In some sense, I think it’s precisely because a PhD is so deeply personal and introspective (what do *you* want to be expert in, what is *your* contribution to the body of knowledge, why are *you* spending 4, 6, 8 or more years of *your* life on this?), that it’s essential to have a good group of peers there to pull you outside of yourself, help you blow off steam, and inspire you personally and intellectually. On that front, there’s no better squad than the ERGies! So thank you all, especially the 2016 cohort, for making it something I would do again in a heartbeat (at least the part through 2019).



Sophie Clara Major

Dissertation: Listening to Indigenous Political Theories: Political Thought and Settler Colonialism in British Columbia, Canada

Immense gratitude to Isha Ray for your continual support and willingness to step into new intellectual spaces with me; to Kay Burns for always having my back; to Froy for being a patient and encouraging sounding board; to my advisors Tom, Kate, and Kara; and to all of my friends, family, collaborators, cats, and the ERG community.



ERG 2022 PhD Recipients

Samira Siddique

Dissertation: Bearing Witness in a Time of Climate Change
Grief: Sustainable Displacement in the Rohingya Refugee Camps

“Freedom is very important. You should not sacrifice it for anything, because without freedom, there is no happiness.” --Thich Nhat Hanh

The past five years have been a transformative period of my life. I was challenged to stand in my truth, to play the hell out of my cards, and to appreciate what it means to fight for something much larger than myself. It’s a gift of a lifetime to have this time to think, learn about, and work on ‘wicked problems,’ and above all, to be granted the freedom to forge my own path. I am grateful for the enormous amount of self-growth, knowledge, and understanding that I’ve cultivated -- through challenging fieldwork, major life decisions, and the company of others who commit to growth, love, reflection, spirit, soulfulness, curiosity, and playfulness.

I am particularly grateful to the people in my life who saw my light and believed in me through dark, painful, exhausting times. And even in these heartbreaking moments, I found jasmine flowers on my walks, a love for writing poetry, bits of random magic, and an intuitive green thumb. I will always be grateful for the kinship I found with others fighting similar fights, for reminding me that I live within a long history of struggles for justice. This work will always continue, and I am excited by the creative possibilities that I now see for myself as a writer, an advocate, a scholar, and a human being.



Julia Katalin Szinai

Dissertation: Crossed wires: Cross-sectoral dynamics of planning climate-resilient electricity systems

I came to ERG eager to fill in my knowledge gaps about electricity systems. I’m leaving with not just that, but also the more valuable lessons of how and what questions to ask, and how to approach answering them. These lessons picked up along my winding ERG journey wouldn’t have been possible without a village of family, friends, colleagues, advisors, and collaborators. First and foremost, I am grateful to Eyal, whose steadfast support throughout (in the form of code debugging, idea brainstorming, or cooking, among others) deserve an honorary PhD. Thank you to my parents, who are my role models and who epitomize the term resilience that my whole dissertation is about. Thank you to my advisors and committee members: Andy Jones for your support of this cross-sectoral research vision and mentorship from the beginning (I am excited to keep this work going with your guidance!); Dan Kammen for enthusiastically supporting my nascent ideas and encouraging me to dream big; David Yates for showing me the ropes of water



ERG 2022 PhD Recipients

Julia Katalin Szinai, continued

system modeling; and Isha Ray for pushing me to become a more rigorous interdisciplinary scholar. Navigating this non-linear ERG path wouldn't have been possible without Kay Burns. And as icing on the cake, I'm graduating the program with a community of incredible researchers and friends who became my chosen family: the newbies 2014 cohort (especially Paty, Cecilia, Laney, MK, and Valeri), my adopted 2015 cohort, the 2013 newbies (especially Kripa - at least 3 chapters of this dissertation wouldn't have existed without your help!, Laura, Chris, and Nikky), and other ERGie elders and friends (including Ranjit, Grace, Pierce, Isa, Salma, Gauthami, Samira, Anna). These friends were teachers and study buddies in the classroom, thoughtful critics and cheerleaders in research efforts, adventurers on the bike/trail/Bay Area, and dear confidantes and supporters through the ups and downs of life at ERG and beyond. Thank you all for helping me along this journey, #ergiesforlife and Go Bears!

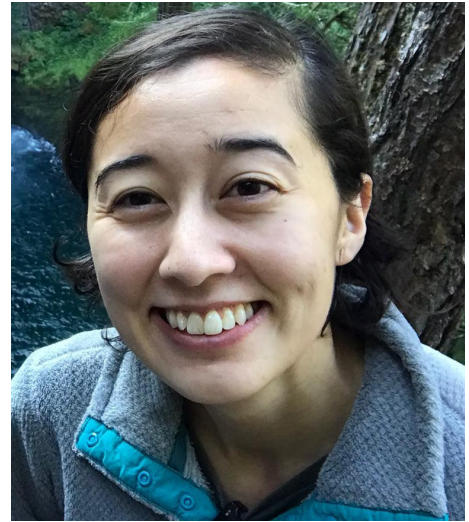


ERG 2021 PhD Recipients

Yoshika Crider

Dissertation: Pathways for progress toward universal access to safe drinking water

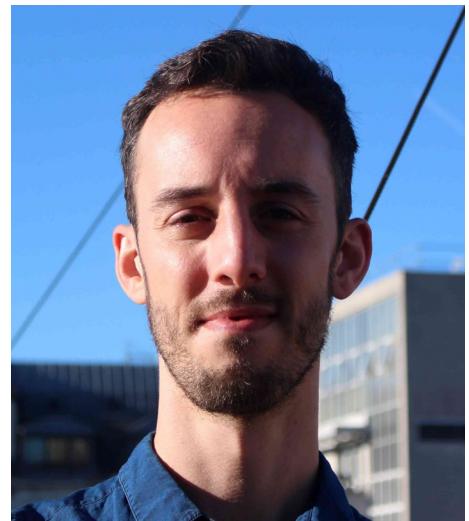
The first time I met Isha (in 2014!), she told me the PhD is a journey. And as with any journey, it has been made by the people I've met and the places I've seen. Thank you to: Isha, a role model of an adviser in both research and character (as others have said, you are stuck with us forever!); Jack, who has been a cheerleader for my epidemiology training and career; Amy, who first introduced me to water research; my mentors who have guided me down the right paths; my students and mentees, who have taught me so much; my colleagues around the world; my writing accountability buddies (Chris, Vero, Helen, Catherine, Carrie, and Lina), who have gently pushed me onward; to the members of the WG+ community, past and present, for the most kind and supportive research family; my cohort and the ERG community, who helped me when I needed it most; and my parents, my sisters, and Gabe, who provide endless support for everything I do. Finally, many thanks to all who have provided me with opportunities to travel to new places and begin to understand the daily experiences of the people who share our incredible planet. What a privilege it has been!



Stephen Jarvis

Dissertation: Studies in Empirical Policy Evaluation: New Methods and Applications to the Energy Transition

I came to ERG in 2015 having never visited California and with basically no idea of what a fantastic community I was about to join. In the years that followed I learned a ton, met some amazing people and made some lifelong friends. In my research and teaching today I continue to find myself drawing again and again on that unique ERG mindset: interdisciplinary thinking, an openness to diverse collaborations and a willingness to ask big questions. There are too many to thank than can be mentioned here, but first and foremost I would like to thank Severin Borenstein, Meredith Fowlie and David Anthoff, for their unwavering support over these past few years. It has truly been a pleasure. To the many other faculty that I have worked with during my time here - Lucas Davis, Duncan Callaway, Josh Blumenstock, Max Auffhammer, Catherine Wolfram, and so many others - you have my profound thanks. And to my fellow students at ERG and the Energy Institute - I already miss you greatly and look forward to crossing paths again soon. I want to thank my wonderful partner, Sydney, and my family back in the UK, who unfortunately can't make it today - I owe so much to their good humor and steadfast belief in me. Lastly, to any current ERG students, all I can say is to make the most of your time here while you can as you won't realize how lucky you are until it's all over.



ERG 2020 PhD Recipients

Gordon Bauer

Dissertation: Electrification of mobility on-demand services: infrastructure and fleet design, operations, and policy recommendations

Huge congratulations to the class of 2022! I am profoundly grateful for all the ways in which I grew over the PhD, and I know I couldn't be where I am today without this incredible experience. In an increasingly uncertain world, understanding how to think about systems critically and adapt to new circumstances while standing by my values has proved an invaluable foundation. The learning never stops, and I'm excited for the twisting road ahead. My deepest thanks to everyone who made this journey possible.



Jessica J. Goddard

Dissertation: Measuring drinking water affordability and sustainability

Between my junior and sophomore year at Berkeley, I took a gap year in South America, where I learned about melting glaciers, saw oil-polluted water pits in the Amazon rainforest, and began to see global poverty as a predicate for Northern profit. Returning to Berkeley inspired to work at the intersection of social and environmental challenges, How can I become an ERGie? became nothing short of a mission of mine. I enrolled in ERG classes and Professor John Harte gave me my first scientific job on his group's climate experiments in the Rockies. Five years later I couldn't believe how lucky I was to get into ERG's MS/PhD Track program.



That was 10 years ago (I graduated in 2019)! ERG has been and remains an identity for me. Being an ERGie has meant a commitment to critique, a drive to never stop learning, and the savvy to keep the big picture in mind, always. At ERG I pursued environmental engineering while diving into sociology of science and ecological economics—and in the end my PhD was in social sciences, working with practitioners at EPA to co-produce research on water affordability and the human right to water in California. This wide net of topics is atypical in graduate school, and yet exemplifies why ERG is the place to envision not just a better model, but a better world.

Thank you so much to my cohort, my accountability group, Water Group+, Dick Norgaard, Kay Burns, and all of the faculty. Thank you to my inspiring two PhD mentors—Professor Isha Ray and Dr. Carolina Balazs—both formidable forces of intellect and female leadership. Above all, thank you to my family, friends, and partner Carsten for seeing me through the PhD.

ERG 2020 PhD Recipients

Patricia Hidalgo-Gonzalez

Dissertation: Learning and Control Systems for the Integration of Renewable Energy into Grids of the Future

Back in 2020 I wrote a farewell statement on my experience at ERG. Today I want to express my appreciation for being able to return after all the challenges the world has faced. Thank you for celebrating with us despite graduating some time ago. It means the world to me that we could wait to celebrate all together now that my mom could also attend from Chile.

Claire Tomlin, Dan Kammen and Duncan Callaway: Thank you for guiding my academic path at UC Berkeley. It was a wonderful experience I deeply treasure. I'll do my best to pay it forward. I miss you very much, and at the same time you've made it clear you are only one e-mail away :) I appreciate your continued support in this new phase as a young faculty.

Thank you ERG friends and family (due to space limitations you may refer to the full version in my dissertation!). Thank you mamá, Laurel, Alex and Anna for celebrating with me today and for your love and support through my Ph.D.



Christopher Y. Hyun

Dissertation: Reports of missing persons in innovation and infrastructure to achieve water and sanitation for all

I wrote my original acknowledgements in the 2020 commencement guide, but here I just want to add... To be honest, my life, in so many ways really, has changed through the experiences I had and people I grew along with at ERG. My friend Mary recently asked me, last weekend in fact, why I joined ERG, why I decided to do a PhD. I really had no clue what I was getting into, in fact I didn't understand what a PhD was. Little did I perceive when I first started at ERG what an utterly unique academic journey I had embarked on and that I had begun meeting people with whom now, nine years later, I can see being intimately bonded for the rest of my life.



ERG 2020 PhD Recipients

Veronica Isabel Jacome

Dissertation: Presumptions and Precarity: Probing Electricity Infrastructure

ERG as place and people is where my heart is - I'm forever grateful.



Niklas Lollo

Dissertation: Inside Out: The Power In Data-Centric Private Governance

When I applied to ERG, I thought it was a place to go get something, like a taqueria that served PhDs. What I learned during those five years is that ERG is a subtle and encompassing encounter. It happens upon you suddenly, before slowly moving through you, enveloping you, extending you, compressing you. Then, five years later, you wonder: what me, what ERG?

I wrote those words two years ago for Commencement 2020 Part 1 of 3 and they still ring true. Thanks to my advisors, colleagues, and friends who somehow got me into and through everything. You're all welcome to visit me in San Diego, borrow a surfboard, and patronize a taqueria that doesn't serve PhDs.



ERG 2020 PhD Recipients

Alana Bowen Siegner

Dissertation: Growing Environmental Literacy: On small-scale farms, in the urban agroecosystem, and in school garden classrooms

Thinking back on my time at ERG, I'm struck by how much I learned in such a short period of time. That stands out as a prevailing theme of my appreciation and gratitude for the ERG community, as someone who considers themselves a lifelong learner. And it wasn't just learnings about climate change and food systems, my areas of focus for my dissertation research. I learned from my peers and faculty advisors how to clearly and confidently express my research findings to diverse audiences, how to be persistent in reaching out and asking for things I need (you never know what unlikely "yes's" you might get from requests of strangers unless you try!), how to have fun while cramming in more work on various projects simultaneously than I thought was possible, and how to "be" in this climate altered reality as an ERGie: how to maintain informed hope and faith in collective action as we face climate impacts that are increasingly dramatic and devastating to people and landscapes. My experience at ERG was positively marked by my Master's cohort, my advisors, my time working on the tiny house project (which led me to meeting my now-husband Brett), and my time researching with an amazing project team at the Berkeley Food Institute. Thank you in particular to Isha Ray and Dan Kammen for your advising and mentorship, to Alastair Iles for chairing my dissertation and believing in my nontraditional ideas for what to do post-PhD, to the farmers in the East Bay and up on Lopez Island who contributed so much to my research (and work-life balance), and to my wonderful accountability group who brought joy to the final phases of the PhD journey: Jess Goddard, Cecilia Han Springer and Laura Moreno. And congratulations to the other graduates from 2020, 2021 and 2022!



ERGie Candids



ERGiE Candids



Celebrating Cathy Koshland



CONGRATULATIONS ON YOUR RETIREMENT!

Cathy Koshland joined UC Berkeley as an Assistant Professor in the College of Engineering in 1985. She became an Associate Professor at the Energy and Resources Group in 1995. In a truly ERGie spirit, her professional contributions have spanned the Fine Arts (painting), Mechanical Engineering, Occupational Health and Industrial Toxicology. In 2004 Cathy was appointed Vice Provost for Academic Planning and Facilities. Her portfolio grew in 2009 to include Teaching and Learning. She was appointed Vice Chancellor for Undergraduate Education in 2015. In 2021 Cathy accepted the role of Interim EVCP, bringing her formidable skills, wisdom, and unstinting spirit of service to the position. She has been an intrepid leader in dealing with the challenges inherent in the management of this vast campus, made all the more so by COVID-related uncertainties.

Cathy Koshland's stellar contributions to campus over her years of distinguished scholarship, teaching, and service have been a source of pride and admiration to all of us at ERG. We wish her and her family health and happiness as she retires from Berkeley, and we know that she retires with the love and thanks of more students and colleagues than can possibly be named.

“Just a few years after Cathy joined the faculty in 1985 she and I worked together to organize UC Berkeley’s (short-lived) Environmental Council and generally raise the visibility of (fortunately long-lived) interdisciplinary classes and research here. With her wit, grace, and extraordinary humanistic and artistic sensitivity, I always looked forward to being on her team in bureaucratic battles. She balanced beautifully, and worked hard to achieve, the goals of putting the “Uni” back in “University” and at the same time promoting diversity.”

JOHN HARTE

“Throughout the ups and downs of our degrees, Cathy has always shown us what it means to be an ERGie. She taught us how to be flexible, curious, and mission-driven, no matter the topic area or method. We could see she had lived these qualities herself, having worked on everything from art practice to air pollution to program development. Cathy has been a wonderful role model and advisor to us since the beginning, and we are lucky to have gotten the chance to work with her these past six years.”

ERG Alumni News 2021-22



Congratulations ERG graduates 2022!

We are excited to welcome you as new alumni in the ERG Alumni Network (ERGAN). ERGAN is an alumni association that aids ERGies in professional networking and intellectual engagement through in-person gatherings, web and social media resources, alumni featurettes, and more. For example, at the start of the pandemic, we launched Where ERGies Work, a webinar series that boosts cultural understanding of workplaces among ERG alums. Each session focuses on a specific economic sector and encourages ERGies to share experiences, identify common themes about their work lives, and provide insight about career navigation. In the past we have hosted other idea-sharing webinars, featured alumni in our newsletters, and offered “Ask an ERGie” advice sessions. What do you think we should do next? We grow with each alum and their ideas. We welcome yours.

We were also able to host a couple in-person events again this year. ERGies got together for a hike at Redwood Regional Park this past summer and another one at Sibley Volcanic Regional Preserve after the Annual Lecture this Spring. In the Fall we met at Temescal for a Friendsgiving picnic. In addition to sharing food and conversation, ERGie offspring engaged in a heated soccer game that pulled in some parents as well. We hope to see our new graduates and current students at future events!

Looking ahead, we are welcoming a few new members to the ERGAN Board. Heidi Fuchs replaced Deepa Lounsbury as Treasurer and Diana Dombrowski replaced Lisa Rennels as Student-Alumni Relations Chair. Renata Marson filled the vacant Fundraising Chair position. We are still looking for someone to fill the Big Events Chair position. (The Big Event is our term for ERGie reunions.) Let us know if you're interested! We are also launching a mentorship program between alumni to connect ERGies across generations, help navigate career transitions, and offer safe and confidential spaces for dialogue.

You can continue staying in touch through our newsletter, the ERGies.org website, LinkedIn, and Facebook. Thanks for your engagement and support. We're looking forward to a great year ahead with all of you!

- Rashmi Sahai, ERGAN President, and the rest of the ERGAN Board

VISIT ERGAN AT: erg.berkeley.edu and ergies.org
facebook.com/groups/ergalumninetwork and linkedin.com/groups/1361362/

Awards and Fellowships

ACEEE Linda Latham Scholar

Arthur Mallet Dias

Alex Farrell Memorial Graduate Fellowship, U.C. Berkeley

Sophie Clara Major, Anushah Hossain

American Association of University Women (AAUW) Fellowship

Joyceline Leonard Marealle

American Water Works Association California Water Service Company Graduate Scholarship

Molly Irene Oshun

Berkeley Fellowship for Graduate Study

Anna Brockway

California Water Environment Association Kirk Brooks Memorial Water Environment Scholarship

Molly Irene Oshun

Carbon Neutrality Initiative (CNI) Reiss Fellowship

Jose Daniel Lara

Center for Race & Gender Research Grant, UC Berkeley

Sophie Clara Major

Climate Corps Fellowship

Nia Novella Jones

Diversity & Community Fellowship

Nia Novella Jones

Edward E. Hildebrand Research Fellowship in Canadian Studies, UC Berkeley

Sophie Clara Major

Energy in Emerging Markets Case Competition at Duke University Fuqua School of Business (1st Place Team)

Isa L. Ferrall

Environmental Defense Fund (EDF) Climate Corps Fellowship

Nabig Chaudhry, Joyceline Leonard Marealle

Ford Foundation 2021 Dissertation Fellowship – Honorable Mention

Isa L. Ferrall

Foreign Language and Area Studies Fellowship

Samira Siddique

Future Investigator in NASA Earth and Space Science Technology Fellowship

Adam Hanbury-Brown

Gates Millennium Scholarship

Nabig Chaudhry

GEM Fellowship

Nia Novella Jones

Graduate Opportunity Fellowship

Nia Novella Jones, Bodie Cabiyo

Graduate Remote Instruction Innovation Fellow

Isa L. Ferrall, Arthur Mallet Dias, Sophie Clara Major

Institute for International Studies Pre-Dissertation Research Grant

Samira Siddique

John L. Simpson Memorial Research Fellowship, U.C. Berkeley

Sophie Clara Major

Link Foundation Energy Fellowship – Honorable Mention

Isa L. Ferrall

Louise Patterson Most Outstanding Graduate Student Award Nominee

Nia Novella Jones

Lyman Fellowship in New Media

Anushah Hossain

Maser Family Graduate Student Fund Award

Arthur Mallet Dias, Bodie Cabiyo

Mastercard Foundation Scholarship

Joyceline Leonard Marealle

MIT A+B Applied Energy Symposium – Best Paper Award

Isa L. Ferrall

Multicultural Community Center Grant, UC Berkeley

Sophie Clara Major

Awards and Fellowships

NREL Student of the Quarter

Jose Daniel Lara

NSF Data Sciences for the 21st Century Traineeship

Samira Siddique, Adam Hanbury-Brown

NSF Graduate Research Fellowship

Samira Siddique, Anna Brockway, Jonathan Lee, Bodie Cabiyo

NSF Graduate Research Fellowship – Honorable Mention

Isa L. Ferrall, Sophie Clara Major

NSF InFEWS Fellowship

Julia Katalin Szinai

NSF Innovation at the Nexus of Food, Energy, and Water Systems Fellowship

Isa L. Ferrall

Outstanding Graduate Student Instructor Award

Molly Irene Oshun

Public Voices Fellowship on the Climate Crisis

Samira Siddique

Secretary of Energy Achievement Award (US DOE)

Bodie Cabiyo

Senior D-Lab Fellow

Anushah Hossain

Siebel Scholar, Class of 2021

Jose Daniel Lara

Spherical Cow Award

Anna Brockway

Student Environmental Resource Center Environmentalist of Color Scholarship

Nia Novella Jones, Nabig Chaudhry

Subir Chowdhury Fellowship on Quality of Life in Bangladesh

Samira Siddique, Anushah Hossain

Summer Dissertation Writing Grant, U.C. Berkeley

Sophie Clara Major

The Richard Norgaard Fund Fellowship

Sophie Clara Major

UC ANR Graduate Training in Cooperative Extension Fellowship

Adam Hanbury-Brown

UC Berkeley Institute for International Studies Pre-Dissertation Fellowship

Jonathan Lee

UC Berkeley Outstanding Student Leader Award

Anushah Hossain

University of California Dissertation-Year Fellowship – Honorable Mention

Isa L. Ferrall

USENIX Diversity Grant Recipient

Anushah Hossain

Wood-Calvert Chair in Engineering Funds Recipient

Anushah Hossain

ERG Faculty News

David Anthoff

ASSOCIATE PROFESSOR

David Anthoff worked on a comprehensive update of the official US federal Social Cost of Carbon estimate for the Environmental Protection Agency during the last year, the first such major update in about a decade. He is especially pleased that he was joined in that work by four more former and current ER-Gies. He once again taught his course Climate Change Economics and in the ERG master seminar series. He also received the wonderful news of getting tenure and is looking forward to many more years at ERG.



Duncan Callaway

ASSOCIATE PROFESSOR

Duncan Callaway spent another year feeling amazed that society didn't completely disintegrate under the weight of a global pandemic. He also took leave in the Spring and moved his family to Vancouver British Columbia to work with colleagues at UBC, steep his kids in their half-Canadian heritage, and enjoy some mountain time. He's currently fascinated by (1) what new physics will emerge on the grid as we add more renewables, (2) what utilities will have to do to equitably update the grid to handle new electrified loads, (3) how to reliably operate microgrids, and (4) how California utilities can and should respond to escalating wildfire risks.



Youjin Chung

ASSISTANT PROFESSOR

Youjin Chung taught a graduate seminar on Agrarian Questions and an undergraduate class on Gender and Environment (all in person!) this year. She gave talks at the American Association of Geographers annual meeting and has been working on various writing projects, including journal articles, invited blog posts, and her book, *Sweet Deal, Bitter Landscape: Gender Politics and Liminality in Tanzania's New Enclosures*, a feminist ethnography of agrarian life in the margins of a stalled sugar plantation development in Tanzania. After completing the manuscript revisions this spring, she is looking forward to spending time with her family and parents whom she hasn't seen in over two years. She plans to travel to Tanzania later this summer to begin fieldwork for a new project on livestock modernization in times of climate change.



ERG Faculty News

John Harte

PROFESSOR OF THE GRADUATE SCHOOL

Although formally retired, I've remained heavily engaged in ecological research, writing, and public outreach on issues such as climate change, food security, and nuclear war. I miss teaching ERG courses and so have begun discussions with some colleagues in the Berkeley Institute for Data Science to develop a new graduate-level seminar on complex systems theory. This summer I am thrilled to be returning to the Santa Fe Institute for a couple of weeks and then to the Rocky Mountain Biological Laboratory for two months. It's been great to see, from behind the viral shield of zoom, how ERG has prospered this past year, and I look forward to participating more in-person in the coming year.



Andrew D. Jones

ASSISTANT ADJUNCT PROFESSOR

In the last year, Andy has settled into his dual role as a Berkeley Lab scientist and faculty in ERG by launching a new Earth Systems and Society Lab Group, which uniquely brings together students, faculty, and scientists interested in actionable science to support climate resilience and equity. Andy also had the pleasure of organizing a series of interdisciplinary workshops to scope out research agendas on urban climate resilience, infrastructure planning, and mountain systems. He really enjoys the process of discovery that takes place when a group of diverse experts focus on a common challenge. One of his co-authored papers on the environmental and water resource implications of a “low-to-no snow” future in the Western US has attracted a great deal of public attention with more than 400 news media citations. Meanwhile, he has appreciated being back on campus with its beauty, intellectual stimulation, and sense of community, all of which are made more fun by commuting on an e-bike from his house in Oakland.



Dan Kammen

PROFESSOR

During the ‘year of COVID’, Dan’s RAEL laboratory developed partnerships on off-grid energy and community-centered social justice with projects to build and link networks of mini-grids in Rwanda, the Democratic Republic of the Congo, and separately in Malaysia and Laos. An NGO spin-off from RAEL, Energy Peace Partners was recognized with multiple international awards for creating the “Peace Renewable Energy Credit” funding vehicle that has now been used to build the largest off-grid energy projects in Africa, in both the Congo and more recently in South Sudan (each > 1 MW). In California, Dan co-directs projects on innovation in long-duration energy storage (with UC



ERG Faculty News

Dan Kammen, continued

Merced), and on 100% clean energy community solutions in partnership with the California Energy Commission. With colleagues Tom Steyer, Leah Stokes, Manuel Pastor, David Pellow, Teenie Matlock and Veerabhadran Ramanathan Dan developed a pathway to an 80% decarbonized California by 2030 that attracted attention and has moved to the full California Senate for deliberation as SB 449 and SB 582 (Stern).

Lara Kueppers

ASSOCIATE PROFESSOR

Lara Kueppers has kept busy with research on ecosystem responses and feedbacks to climate change, primarily in Western US and tropical forests. She spent two months in the field in Colorado in 2021, furthering an effort to observe and project subalpine forest responses to climate change, which was a wonderful change after more than a year at home. She taught a new graduate seminar on natural climate solutions in the fall, touching on opportunities and challenges given the warming climate. A new effort that consumed much of Lara's "free" time over the last year was launching the Climate and Wildfire Institute, a new 501c3 founded with colleagues across California to accelerate research-to-solutions on the ground. There is tremendous expertise but little coordination, and there are also a number of gaps that need addressing quickly. In 2021, Lara was also honored as a new Fellow of the California Academy of Sciences.



Meg Mills-Novoa

ASSISTANT PROFESSOR

Meg Mills-Novoa moved to Berkeley in August to start her joint appointment at ERG and ESPM. She has been busy this year laying the groundwork for her research group, the Climate Futures Lab, and getting to know her colleagues through the Climate Equity and Environmental Justice Roundtable.

This spring, she taught her first undergrad course on climate justice and will be offering it again this coming fall to 150 students. She has been continuing her research of climate change adaptation projects in the Andes. This spring she hosted a series of workshops with officials from the Ministry of the Environment on adaptation assessment and will be heading back to Ecuador in June for the first time since the beginning of the pandemic. This summer, she'll also be getting started on her book manuscript, *After Adaptation*, an exploration of how adaptation initiatives endure (or not). Beyond work, Meg has been cultivating her sea foraging skills. In the picture, you can see the bounty of her first crabbing trip to Tomales Bay.



ERG Faculty News

Isha Ray

ACTING CHAIR, PROFESSOR

COVID-19 prevented Isha Ray or her students from conducting new fieldwork in India, China or California's Central Valley this past year. Nonetheless, the year was not entirely uneventful. Isha started her tenure as the Associate Dean for Equity and Inclusion for the Rausser College of Natural Resources (<https://nature.berkeley.edu/diversity-equity-and-inclusion>). She was also appointed as a lead writer for the Gender Working Group of UNESCO's World Water Assessment Programme.



Margaret Torn

ADJUNCT PROFESSOR

Margaret Torn studies how climate change affects the world's ecosystems and works to develop pathways for the U.S. economy to reach net zero greenhouse emissions. She is excited to go back to Alaska this summer after a two-year hiatus, to measure greenhouse gas (CO₂, CH₄) fluxes from thawing permafrost. Field work in the Earth sciences can be hazardous, especially for students and marginalized scholars. Margaret is taking advantage of being President of the Biogeosciences section of the American Geophysical Union this year to organize trainings, webinars, and town halls to promote safe and inclusive fieldwork. Margaret is also Senior Scientist at Berkeley Lab. At ERG, Margaret taught the Master's Seminar for the graduating class—who have managed to do great work and come together as a cohort despite the tough times and too much time on Zoom. She congratulates them and wishes them all the best!



Congratulations!



Make a Gift to ERG

Please consider making a donation to ERG's research, teaching, policy influence, and scholar-activism for a sustainable environment and just society. Donations make a huge difference in our students' ability to bring their research to a world that greatly needs it. To give, contact our office, visit our website, or scan the QR code here.



ENERGY AND RESOURCES GROUP, UNIVERSITY OF CALIFORNIA BERKELEY

345 Giannini Hall | Berkeley, CA 94720-3050
(510) 642-1640 | ergdeskb@berkeley.edu | erg.berkeley.edu