





Dan Dupuis Building: FTLB

Job: I turn plants, plastic, and trash into fuel for planes and race cars Meaningful Moment: "When I was a kid, I was fascinated by a solar-powered calculator our family had. I would put it under light and watch it turn on, then cover the solar cells with my finger and watch the digits slowly fade away, then remove my finger and watch the calculator come back to life. That seemingly 'free' energy made me I want to research renewable energy!"

Fred Baddour

Building: FTLB

Job: I use chemistry to make new molecules that turn wood and grass into fuel for cars, trucks, and planes.

Meaningful Moment: I have always been fascinated by science and learning about how things work. In high school I was struck by the fact that there is so much about the natural world that we don't understand and there is still so much more to discover. This attracted me to subjects like chemistry that give you extra tools to solve a lot of these puzzles and I've been trying to use these tools ever since to try and better understand and improve our world.

Gabriella Lahti

Building: FTLB

Job: I make and test super cool materials every day; some are tiny and help turn waste into fuel while others are super thin sheets that are part of solar panels!

Meaningful Moment: "I had no idea I could be an engineer. In high school, I read Rocket Boys (October Sky) for a physics class. Everything those boys were trying in the book, I also wanted to try. Luckily, I had (nervously) enrolled in an automotive class my high school was blessed to have, and I asked my teacher

to show me how to solder and weld. It turned out I was great at welding, and I got to meet and impress some NASA machinists. That sparked a new love for the science of physical things: how metals melt, how fabrics stretch, the list goes on. I also liked calculus, chemistry, and loved animals, so I pursued Materials Science and Engineering (with an emphasis in Chemical Engineering) and a job at NREL, so I could use my smarts and skills to help the world and all its living things."



Kamyria Coney

Building: RSF

Job: I help countries figure out how to deploy and integrate electric vehicles to reduce traffic congestion and lower car emissions.

Meaningful Moment: "After I had just been rejected from the College of Engineering at CU-Boulder, I decided to pursue a different degree in Environmental Studies and Mathematics. I was required to take Energy Policy and Society – and I immediately fell in love! The idea of being able to create policy and help guide decision-makers to positively impact their community sparked this desire to learn more and get a master's degree. It was in this specific course, where I knew that I wasn't supposed to save the world as an

engineer but I was destined to save the world as a policy analyst."



Chioke Harris

Building: RSF

Job: I create computer models of buildings and the devices within them that use energy, like refrigerators and heaters, to find out how much energy the U.S. can save if those devices are replaced with ones that use energy more efficiently.

Meaningful Moment: "My interest in engineering came from an interest in transportation technology—cars and airplanes, primarily. I didn't know what engineers did, but I knew that engineers worked on those technologies, so I concluded that engineering was the right career for me. My interest in using

engineering to minimize our impact on the environment without giving up the benefits that engineering advancements have already yielded came from many influences, including the cartoon Captain Planet and the Planeteers. I've since learned it will take more than 'five special young people' to protect the planet, but I'm glad to be one of the many people working toward that goal."



Nicole Mendoza

Building: Flatirons Campus

Job: I focus on technology development of floating offshore and onshore wind energy systems. I innovate new technology concepts, design and analyze various wind turbine systems, and develop models and software for technoeconomic analysis of wind turbines. I am a passionate champion and advocate for women and minorities in STEM, renewables, and wind energy.

Meaningful Moment: "I knew I wanted to study engineering when I realized that engineering gives you a fundamental understanding of how the world works and enables you to solve the world's complex problems. It's constantly

igniting my curiosity and creativity!"





Building: Flatirons Campus

Job: I manage a group of marine energy and hydropower experts with an aim to maximize their potential to make the world a better place through harnessing the power of our oceans and rivers.

Meaningful Moment: Ever since I was a kid, my ambition was to be a pioneer. At first this meant wanting to be an astronaut and explore unchartered territory, this morphed into a desire to combat climate change and change the world through clean energy and living lightly on Earth.



Building: RSF

Job: I focuses on the intersection of energy, water, food and land systems where I look for technology and policy solutions to address the competing demands for these resources in a sustainable manner.

Meaningful Moment: "Water played a large role in my life growing up in the Great Lakes region. Witnessing the environmental effects of water pollution firsthand made me want to be part of the solution and to devote my work to sustainable use of water sources."





Bonnie Buss Building: FTLB

Job: Let's face it, we really need plastics in our daily lives and they are not going to go anywhere. But, most plastics today are made from oil and are not recycled and end up in bad places like the ocean. My work at NREL focuses on making plastics more sustainable from all angles. Some of what I do focuses on developing new and improved ways to make important plastics, like carbon fiber, from renewable sources. But, I also work on finding approaches toward breaking down common plastics, like the material used in soda bottles

(PET). We really want this work to be something that can be done on a large scale using existing infrastructure, so we are really focused on understanding the details of how the plastics are either made or broken down so we can make it cheaper and easier to adopt.

Meaningful Moment: It wasn't until college when I was taking an introductory chemistry course that I really started to see chemistry (and science) for what it is: a giant puzzle, but with a really specific language and well-defined rules. As a kid I *loved* jigsaw puzzles, so when I was really excited to realize that I could incorporate some of that fun problem solving into my every day life by being a scientist.



Ilya Chernyakhovskiy

Building: RSF

Job: I do research and provide training to help other countries including India, the Philippines, and Ukraine to increase the amount of clean energy in their power systems.

I have always loved science since it is all about finding out how things work in our world. In high school, I did a project where I learned about how scientists were working to solve climate change by developing renewable energy technology and I made it my goal to become one of them.

Meaningful Moment: After college, I had an internship at the Massachusetts Clean Energy Center where I talked to a lot of homeowners who had solar on their rooftops. I soon realized that clean energy was at the intersection of a bunch of super interesting topics that I wanted to learn more about: economics, policy, the environment, and the power system. That experience led me to pursue a master's degree in Resource Economics and to seek a job a NREL, and I have never looked back since.



Roderick Jackson

Building: RSF

Job: I have an awesome job! I get to lead the research strategy at NREL to make buildings as energy efficient as possible, while ensuring the places where we work and live are comfortable, safe, and resilient. I get to work with staff from NREL and the Department of Energy to develop technologies that pave the way for buildings to work with renewable energy resources to create a clean energy future.

Meaningful Moment: My dad built houses and introduced me to the construction industry at a very early age. I can remember my first job was to

pick up all the straight nails on the jobsite. While I spent countless years working closely with my dad, my technical passions were in the discovery and development of new science and technology. I'm now in a career where I get to marry my passion with my family legacy.



Eric Lockhart Building: RSF

Job: I work with cities, states, and utilities to help them accelerate their transitions towards clean energy.

Meaningful Moment: In graduate school, I took an energy systems analysis course that brought the complexities of global energy systems to life and highlighted the inter-disciplinary nature of working to advance the clean energy transition. The course also crystallized for me the urgency of responding to the climate crisis and I knew I had to jump in with both feet upon graduation.



Annie Greenaway

Building: SERF

Job: I work on the discovery of new semiconductors to be used in things like LEDs and solar cells, and on transforming CO_2 into useful chemicals using electrochemistry.

Meaningful Moment: I was looking for something to do the summer after my sophomore year of college and I applied to the summer internship program at NREL. I didn't think it would help me figure out what I wanted to do with my life, but that summer helped me see that I could unite science

and public service in one mission: renewable energy research. That experience motivated me to go to graduate school and ultimately come back to NREL as a scientist!



<u>Melissa Gish</u>

Building: SERF

Job: I am an ultrafast spectroscopist, which means I use different colors of laser light to excite molecules and take pictures of what happens to the excited electrons in solar cells on the time scale of picoseconds (1000x faster than a nanosecond!).

Meaningful Moment: When I took Quantum Mechanics in college, I really loved the intersection of physics and chemistry and things just clicked. In grad school, I was introduced to ultrafast lasers and I had found my calling. I can use

all of the colors of the rainbow to "see" what I learned in quantum mechanics at work, while studying the next generation of solar cells!



Ardelia Clarke

Building: RSF

Job: Reduce carbon emissions from commercial buildings, increase energy savings for consumers, and model how renewable energy sources can be used instead of fossil fuels via code development, data science, and physics modeling.

Meaningful Moment: "I started studying physics when my college physics professor pulled me aside after class and mentioned that the way I think is intriguing as she had never seen a student switch between 3 different color

pens while writing class notes, draw graphs and doing homework. A week later, I switched from premed to physics and 8 years later am a PhD physicist."





Taylor Aubry

Building:

Job: I study and develop new kinds of semiconductor materials for energy conversion and storage applications!

Meaningful Moment: I have always loved science since it is all about finding out how things work in our world. In high school, I did a project where I learned about how scientists were working to solve climate change by developing renewable energy technology and I made it my goal to become one of them.

Meghan Pearson

Building: Education Center

Job: I translate the research that comes out of NREL into fun and exciting hands-on projects that can be completed by students! I would say I have the coolest job at the lab because I get to work with ALL of the NREL superheroes.

Meaningful Moment: I didn't know I loved science until college. I had always been good at math and science, but when I got into Physical Chemistry and learned more about the electron and its effect on everything in the universe,

I was absolutely hooked. I went on to get my master's in chemistry. Then I transitioned to education so I could teach others to love science, too!