

2026 REcharge Academy Attendee Booklet



St. Paul, MN | Macalester College
Sunday, July 12th — Friday, July 17th

Thank You to Our 2026 REcharge Academy Sponsors



Sunday, July 12th

Arrival Day

For those who opted for Room & Board:

Our team will be tracking your flights and will plan to pick you up at the airport! We will send day of text messages with pick-up details. We will take you straight to the dorms for check-in. Terminal 1 pickups will all occur at Door 4. Terminal 2 pickups will all occur at Door 7. Please note that Terminals 1 and 2 are 15 minutes apart by car - this means that if a pickup is going to both terminals, you may have to have a little patience!

If you are getting yourself to campus, check-in will be held in the lobby of George Draper Dayton Hall (GDD) on the east side of the building. The GDD address is 10-20 Cambridge St, St Paul, MN 55105. Please street park near the dorms (on Macalester, Summit, or Cambridge streets), and we will direct you to overnight parking (West 2 lot) after checking you in.



For any logistical arrival and check-in questions, please contact:

Sarah Henderson, Program Coordinator
sarah@kidwind.org | 240-743-9649

If you are checking in on a day other than arrival day, please contact Sarah to arrange for your check-in.

For everyone:

6pm: Informal Dinner at the Groveland Tap - *Gather outside of the dorms by 5:45pm! Please come if you can, but if you would like to just chill and walk around and get your own dinner, that is fine as well!*
1834 St Clair Ave, St Paul, MN 55105

[The Groveland Tap](#) is a neighborhood beer and burger joint nestled in the heart of the Mac-Groveland neighborhood in Saint Paul. Order a Juicy Lucy, some savory cheese curds, or your favorite tap beer.

Monday, July 13th

Energy Basics & Power Grids

TIME	DETAILS
8:00AM	Breakfast at Olin Rice Building - OLRI 250
8:45 AM	Welcome to REcharge! Welcome to 2026 REcharge Academy! Let's meet each other, go over the agenda, share logistics and settle in for our week energy geeking together.
9:30 AM	Icebreaking / REcharge Academy Project Make some new friends and see what we know about the electricity that powers our lives. We will also share some details on your project of the week.
10:30 AM	Simple Circuits - Measuring - Terminology Using snap circuits we will construct some simple series and parallel circuits. Along the way we will learn what is electricity, how do we measure this magical stuff and what can we make it power!
11:30 AM	What's the Power Grid and How Does it Work? How much do you know about the largest most complex machine in the world that makes our modern lives possible.
12:00 PM	Lunch On Your Own - <i>Stipend provided for attendees with Room & Board</i>
1:00 PM	More Circuits - Let's Build a MicroGrid We will also start to use some more creative tools and materials to make more complex and artistic circuits as we explore constructing a model power grid.
2:30 PM	Tour of Clean Energy Facilities at Macalester Megan and our friends from Macalester will share electricity consumption for a whole college and what they are doing to reduce the amount of carbon impact from the electricity they use and procure. We will also walk around the campus a bit and check out some of this technology.
4:00 PM	Talking Generators How do we generate electricity? What is in a generator? What are the variables?
5:00 PM	Finished for the Day
5:45 PM	Dinner at Malcolm Yards Bus Pick Up - GDD
8:00 PM	Return from Dinner Bus back to GDD

Tuesday, July 14th

Solar Power & Storage

TIME	DETAILS
8:00 AM	Breakfast at Olin Rice Building - Olin Rice - 250/243/254
8:45AM	Daily Morning Group Meeting
9:00AM	Get to Know Solar Panels & Solar Power We will explore solar power as we go on a solar scavenger hunt. Build some solar buzzers, run some solar motors and then explore what it takes to site a solar array. Explore PHET and understand how to diagram your circuit. Along the way we will learn more about electrical loads, resistance using advanced multimeter skills.
11:00 AM	Solar Training, Robert (Bob) Blake Robert Blake is the owner of Solar Bear, pronounced Gizis-o-makwa in Ojibwe, a solar installation company located in Minneapolis, Minnesota. Robert is also the Executive Director of Native Sun Community Power Development. Robert is a tribal citizen of the Red Lake Nation.
12:00 PM	Lunch On Your Own - Stipend provided for attendees with Room & Board
1:00 PM	Water Wars! Build a solar water fountain to empty your water bowl faster than your partner can fill it!
2:30 PM	More Solar Exploration! We will use this time to explore and construct a variety of solar focused projects. ➔ Solar Lanterns - Construction (Tim and Mike) Construct a solar lantern and learn about solar and storage! ➔ Solar Rovers & Cars (Kathy) Construct some solar power cars and rovers. ➔ Solar for Younger Students (Remy) Explore some solar projects that are good for younger students.
4:30 PM	Wrap Up! Discuss in your small groups what you learned today and how you can implement something from today into your classroom and share with the larger group.
5:00 PM	Finished for the Day
Evening	Dinner on Your Own - Stipend provided for attendees with Room & Board

Wednesday, July 15th

Wind Power

TIME	DETAILS	
7:30 AM	Breakfast at Olin Rice Building - Olin Rice - 250/243/254	
8:30AM	Get on Bus to MISO at Olin Rice	
9:00 AM	<u>MidContinent Independent System Operator (MISO) Tour</u> We will learn about and explore one of MISO's operating facilities. You will get an indepth look at how the MISO makes sure everyone has all the power they need all the time and the challenges of making that happen.	Elementary Activities & Support For the folks that would like to stay back at Mac we will spend some time on foundational subjects and elementary wind and solar activities.
11:15 AM	Power Markets If we get back from MISO in time we will play an energy markets game!	
12:00 PM	Lunch On Your Own - <i>Stipend provided for attendees with Room & Board</i>	
1:00 PM	Constructing & Using Wind Devices Teachers will construct classroom wind turbines and explore activities that demonstrate basic turbine functionality.	
2:15 PM	The KidWind Challenge! The primary use of this time will be to learn about the KidWind Challenge and you will be able to participate in a mini KidWind Challenge where you can work to construct and improve small turbines. We will have some other stations and activities around the room where you can explore other topics. ● 3:00 - 4:00 - Vernier Tools - Learn about energy sensors, anemometer, light sensors, and other cool data logging tools ● 4:00 - 4:30 - White Box Learning: Learn about the simulation challenge and cool software that allows students to design blades and construct Wind Farms. ● 4:30 - 5:00 - Activities for Younger Students: Curious about activities for the younger students? We will share projects around Sail Cars, Mini Windmills, and MacGyver projects.	
5:00 PM	Reflect on the Data and Day!	
5:30 PM	Finished for the Day	
Evening	Explore Minnehaha Falls! <i>Optional, weather permitting</i> You may want to stick around and have dinner at Sea Salt , located right within Minnehaha Regional Park. Sea Salt is a counter serve seafood restaurant with picnic table/patio dining.	

Thursday, July 16th

Presentations & Other Fun

TIME	DETAILS
8:00 AM	Breakfast at Olin Rice Building - Olin Rice - 250/243/254
9:00 AM	Get on Bus for EOLOS Tour - Olin Rice
9:30 AM	EOLOS Wind Turbine Site Visit <i>Christopher Milliren, Associate Engineer, Rosemount Research & Outreach Center, 16085 Alverno Ave Farmington, MN</i> This tour will visit Eolos , a Minnesota-based wind energy group of leading university researchers and industry partners. Their mission is to advance the production of wind-generated energy for the United States through industry-driven research, field-scale demonstration of new technologies, and workforce training.
11:30 AM	Lunch On Your Own - <i>Stipend provided for attendees with Room & Board</i>
1:00 PM	Group Presentations Your team will share your group Electricity Stories.
3:00 PM	Closing & Packing Up <i>We will pack up all the gear label it and make sure it gets shipped back to your house!</i>
6:00 PM	Closing Dinner at French Meadow

Friday, July 18th

Departure Day!

Departures & Check-Out (only if you are staying in the dorms!)

You must check-out of the dorms no later than 12pm on Friday, July 18th (although you're welcome to hangout in the area longer).

For any logistical departure and check-out questions, please contact:

Sarah Henderson, Program Coordinator

sarah@kidwind.org | 240-743-9649

If you are checking out on a day other than July 18th, or if you are not staying on campus, please contact Sarah to arrange for your check-out (key return, etc.).