## Follow the sun into the future.



Your guide to AllEarth Solar Trackers from AllEarth Renewables<sup>™</sup>





At AllEarth Renewables, we believe that there are better, more responsible ways to power our lives. Ways that deal with today's energy needs while planning for the challenges tomorrow will bring, using technology that makes energy production local. Ways that utilize efficient, responsible, renewable, and clean energy solutions.

We believe that business is an important catalyst for change, but businesses alone can't incite the radical overhaul needed in our energy infrastructure. It will take people and business working together. We have the technical expertise and experience in inventing new, more efficient energy solutions. And we have the passion, urgency, and desire to create a brighter energy future. We represent a new generation that is defined by a mindset, not by age.

Together, we're the ReNEWable Power Generation.



# AllEarth Solar. Smart technology inspired by nature.

It's plain to see that nature provides so many of the answers we've been looking for. Watch a field of sunflowers over the course of a sunny day and you'll notice how they face the rising sun and track it across the sky until sunset. They remain open to the sun's rays and soak up its power by moving with it.

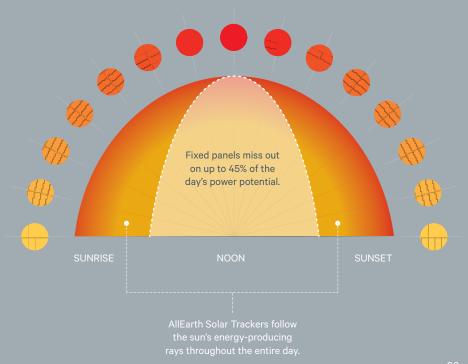
That's just one source of inspiration that we used to engineer a smarter and more efficient solution that maximizes the sun, while profoundly minimizing the negative impacts of generating power.

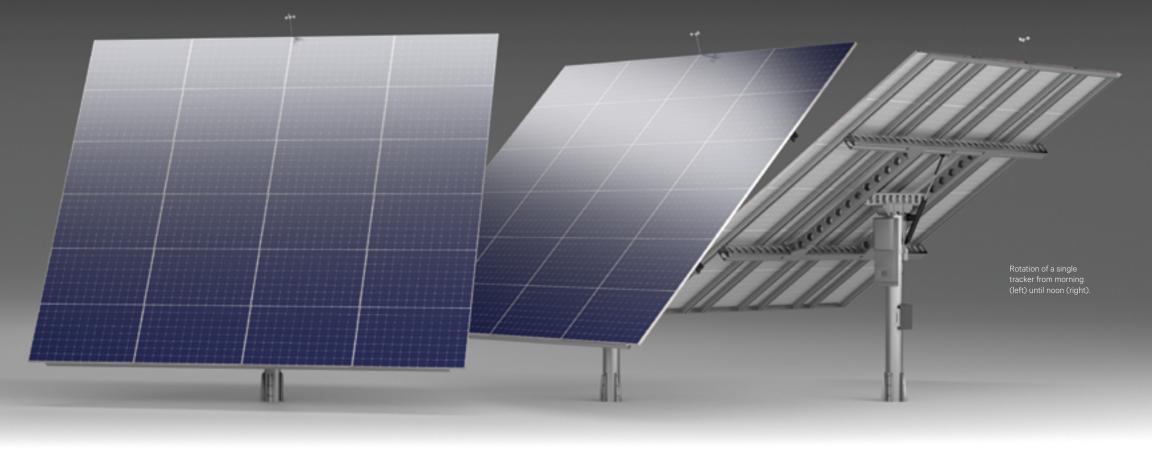


There's no single optimal angle to capture solar energy. The sun is a constantly moving target.

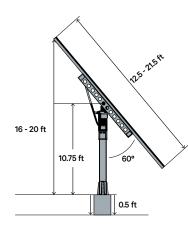


Our dual-axis trackers follow the sun to produce up to 45% more energy than fixed solar panels.





### Technical specifications.



	AllEarth dual-axis solar tracker comparison	
	Series 20	Series 24
Number of modules	20	24
Module area	352 ft <sup>2</sup>	423 ft <sup>2</sup>
Maximum height	18 ft	20 ft*
Height when flat	11 ft	11 ft
Width	21.5 ft	21.5 ft*
Weight (complete system)	2,900 lb	3,100 lb
Minimum clear diameter	27 ft	27 ft
Module configuration	4 x 5 landscape	4 x 6 landscape

<sup>\*</sup>Depends upon module dimensions

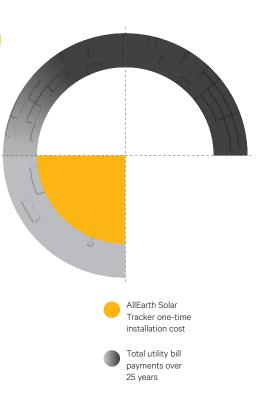
Inverter	Compatible with both string and microinverters	
Wind loading	Wind-tunnel tested, stamped to ASCE 7-10 120 mph	
Modules supported	Most commercially available 60 cell modules	
Structure/materials	Freestanding, mast mounted, galvanized steel components	
Motor type	180 watt hydraulic power unit	
Yaw drive (azimuth)	Ring/worm gear with hydraulic motor	
Tilt (elevation)	Hydraulic cylinder	
Yaw range E/W	0 to 360°	
Tilt range N/S	0 to 60°	
Solar tracking method	GPS, sun calculation based, microprocessor controller	
Wind protection	3-cup anemometer sensor, automatic algorithm, stows flat at 30mph	
Annual power consumption	<1% of system output	
Connection type	Grid-tied only	
Communication	Integrated RF radio	
Foundation types	Precast concrete, steel riser, helical pile	
Nighttime stow	Stows flat at sunset	
Module attachment	Innovative high-speed bottom-mount clamping technology; fast and safe; no gaps between modules	
Warranty	10 years	
Manufacturing location	USA	
Manufacturing location	USA	

## Quality and reliability you can count on.

The best energy solution won't matter if it isn't reliable and well built. AllEarth Solar Trackers are American engineered and American made and come with a 10-year full-system warranty and a 25-year design life. Our systems are 120 mph wind rated and can withstand harsh winter climates with superior snow shedding. All of this adds up to a system that's effective and efficient every day—a system that you can count on well into the future.

## 3x lower energy costs.

Based on an average annual utility rate increase of 3%, our Trackers can result in as much as 3x lower energy costs over 25 years. Real power and real savings add up to a really easy choice to make.





# Tailor-made energy solutions for any need.

#### **The Solar Farm**

South Burlington Solar Farm **South Burlington, Vermont** 

"We've innovated and refined our AllEarth Solar Tracker so it can be affordably used to power homes and businesses or be incorporated into a utility-size solar farm."

David Blittersdorf

Located on Dubois Drive in South Burlington, Vermont, and consisting of 382 AllEarth Solar Trackers, the 2.1 MW South Burlington Solar Farm was created as part of Vermont's feed-in tariff program. It sells more than 3 million annual kWh to Vermont's Sustainably Priced Energy Development (SPEED) Program. The SPEED Program encourages the development of renewable energy resources in Vermont, as well as the purchase of renewable power by the state's electric-distribution utilities. Spread over 25 acres, the South Burlington Solar Farm is the largest distributed solar-tracker farm of its kind in North America. At this farm, harvesting the sun is always in season!

Number of Trackers: 382

Annual power generated: 3.4 MWh



The Vineyard
Brengman Brothers Crain Hill Vineyard
Traverse, Michigan

'Our customers love our wine and now they can love ever nore how we make it." Robert Brengman

The Brengman Brothers Crain Hill Vineyard is Michigan's first fully solar-powered vineyard. Thei 18.7 kW AllEarth Solar Tracker system provides all of the energy they need to light, heat, cool, and process at their 45-acre vineyard and wine-tasting facility. Their solar trackers are connected to the grid through a net-metering agreement. During peak production periods, excess energy is returned to the local utility—Consumers Energy—and when the vineyard needs power, it simply draws it from the energy generated by the solar trackers. Cheers to this innovative net-zero system!

Number of Trackers: 3
Annual power generated: 30,000 kWh



The Quarry Soiland Company Cotati, California

"The decision to go solar not only made economic sense, but it really aligned with our environmental values." Mark Soiland

As the North Bay's largest construction and land-scape materials supplier, the Soiland Company saw their electric bills double overnight due to a rate redesign. To keep prices reasonable for their customers and to stay financially stable, they looked for effective and efficient energy solutions. By choosing AllEarth Solar Trackers and partnering with North Coast Solar and their local utility, they were able to dramatically lower their power bill and also displace approximately 27 tons of CO  $_2$  in their first peak month alone. Overall, Soiland Company exceeded their targeted benefits in two of their most important areas—financial returns and environmental benefits. Now that's a win-win!

Number of Trackers: 33
Annual power generated: 439,100 kWh





#### The power is all yours.

Your home is not only a reflection of your taste, it's also a reflection of your values. And for those trying to reduce their use of non-sustainable energy resources, there's simply no better choice than our Solar Trackers. As one of our customers, Linda Markin told us, "We felt as though we had implemented all of the easier environmental changes in our home—an energy conservation retrofit of our basement and mechanicals, energy-efficient lighting, recycling, and composting. We were ready for the next step and the Solar Tracker was it."

One of the most satisfying things about solar is how easy it is to get started—and start seeing results. Our Solar Trackers are quick to install and provide a higher energy output vs. roof-mounted systems. And customers love the Trackers' landscape-preserving compact design. Nelson and Anke Oakes reported, "Our tracker gives us 40% more power in the same space! Two happy customers."

After all the research and planning, there's something special about seeing your tracker installed and soaking in the sun. As Karen and Judson Barlett put it, "We love our Solar Tracker. It's extremely reliable, it produces more energy than expected, and seeing it every day reminds us that we've made the right choice—both financially and environmentally." Not only are our customers thrilled to see their electric meter run backward, they also get to see their credit balance grow on their electric bill. Who wouldn't love that?

Dag and Sharon Olsen know the feeling: "Our Solar Trackers have been an excellent investment, saving us money and helping us achieve our net-zero goal!" When you're ready to take the next step—for you, for the environment, and for the generations to come—we'll be right there to help.



"Our tracker gives us 40% more power in the same space! Two happy customers."

Nelson and Anke Oakes

"We wanted to do something that we felt would make the world a better place for our children and their children. At the same time, it made financial sense for us to lock in our cost of electricity for the long term and it adds to our property value as well."

Steve and Deborah Page





## Designed, tested, and engineered in Vermont.

Named to the annual Inc. 500 list of fastest growing businesses in 2012, and recognized by *Vermont Business Magazine* as the fastest-growing energy company in Vermont in 2011, AllEarth Renewables believes in a better way of doing business.

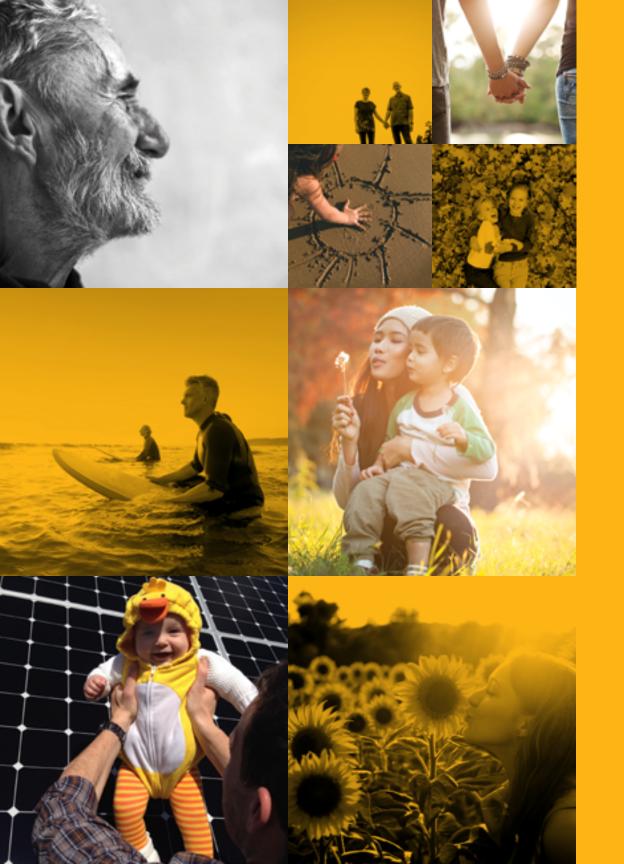
We champion award-winning and nation-leading solar policies. We've won bike-commuting competitions, captured Carbon Cups, and earned Best Places to Work awards. We've paid our employees to pay for their energy usage- and watched them create their own bonuses when they've used less power.

We're passionate about what we do and where we are. Far from being an overnight success, we've earned national recognition by taking our thirty years of experience in the renewable energy industry and constantly innovating our products, our thinking, and our goals.

David Blittersdorf, our CEO, isn't new to renewable energy. When he was 14 he built his first wind turbine to light the small shack where he boiled sap into maple syrup. As a student at the University of Vermont, he built yet another wind turbine. And after he graduated, he went on to found and lead NRG Systems—one of the most successful wind-energy companies in the U.S. On New Year's Eve 2008, he sketched out the initial design for a solar tracker that followed the sun like a sunflower. And AllEarth Renewables was born.

Following his example, we believe that having experience doesn't mean you can't always be looking for new answers. We've built a 25-acre, 382 tracker, 2.1 MW solar farm in our own backyard so that we can fine-tune every aspect of our product, services, and delivery for our customers.

We believe in what we do, so you can believe in us.



## We are the ReNEWable Power Generation.



We're defined by a mindset, not by our age. We think about tomorrow while solving the big issues of today. We look to nature for the best solutions, because we know there's always a better way to do things. We believe smart technology improves products, so we favor efficiency over the status quo. We want our energy made locally, responsibly, and with the smallest environmental footprint possible. We want clean energy without compromise. We believe in power that empowers us all.

And we know that, together, our future is bright.





**AllEarth Renewables, Inc.** 

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