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JUNE 2022

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{ FEATURE }

# THE SUNPEDAL RIDE

Ever wonder what's it like riding 7000 miles across the U.S. on e-bikes?



The pair rode across the Golden Gate Bridge in heavy headwinds with a view from the Sausalito side on the Battery Spencer Observation Deck visitor area.





**S**ushil Reddy is no stranger to long e-bike rides. In his goal to promote e-bikes and sustainable energy, he has endured several long rides, some of which have earned him a Guinness World Record. His first was in India, but he's done others in France, California, and Iceland.

He came up with the idea to travel across the U.S. when talking to friend Luis Fourzan, and the two decided to plan their journey. Originally planned to take place in 2020, COVID restrictions pushed it to 2021. They planned carefully, trying to not only match the seasons but, because a visa is only good for six months, within a certain time constraint. They also tried to arrange other things, including not having to ship the bikes in. They settled on Winston-Salem, North Carolina, to start, because the Sol Mobil workshop is there. Ryan Gillespie is well known for his DIY solar e-bike builds.

**“E-bike touring can, thus, open avenues for cycling for a lot of people, and with solar power, one can go off-grid partially or fully. This journey turned out to be stress testing for the components.”**

Sushil's bike started as a Yuba Boda Boda All Terrain cargo bike. It was fitted with a Grin All Axle front hub motor, a pair of LiGo 300Wh batteries and two SunPower 50W solar panels. Luis' bike was a Riese & Müller Supercharger with dual 500Wh batteries to offer plenty of range that was loaned to him by Dr. Gregory Maassen, founder of the e-Bike Lovers group in Washington, D.C.

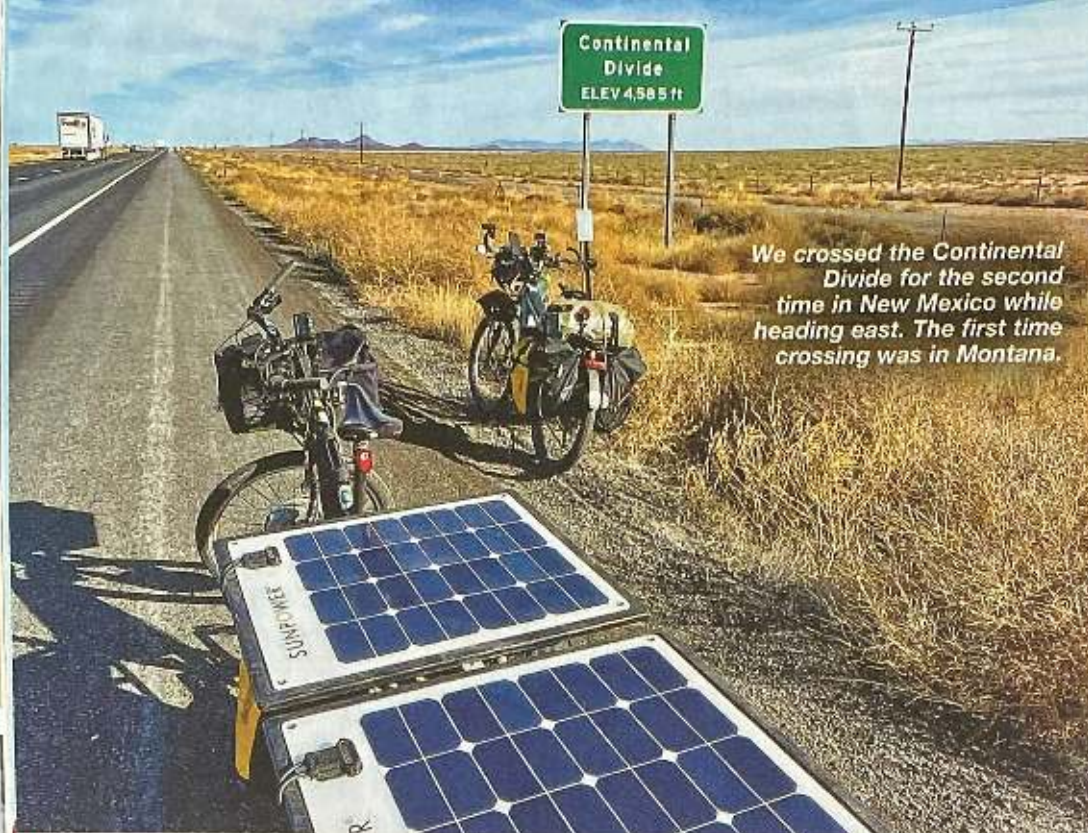
They had quite a few sponsors, mainly Oriden and Mitsubishi Power Americas, with additional help from companies like Radisson and Sol Mobil, as well as contributions along the way.

## **GETTING STARTED**

In August of 2021 they initiated their first test ride. There were flash-flood warnings that day, and that turned out to be a solid test of both electrical systems in the heavy downpour that they endured. That wet experience gave them confidence in the bike equipment.

The cross-country trek started in Greensboro, North Carolina, after the pair met with Professor Jack Martin,





*We crossed the Continental Divide for the second time in New Mexico while heading east. The first time crossing was in Montana.*

*The day we entered California from Oregon on the interstate was one of the last rainy days we endured. Yreka was our first city stop in California, and the Sunshine State welcomed us with sunny days again.*



a senior lecturer in the Sustainable Technology and the Built Environment department at Appalachian State University. They would stop at many universities along the way to discuss and promote sustainability and e-bikes, including the likes of Gonzaga, Central Washington University, Montana State, Bismark State College and more, as well as sustainability leaders like Kevin Borgia from the Illinois Solar Energy Association.

Obviously, Luis' bike had more native range than Sushil's at 1000Wh versus 600Wh, but on sunny days, Sushil got a 30-percent boost in his range, thanks to the solar panels. They averaged 62 miles a day, but some days traveled over 100 miles.

They stopped in Washington D.C., New York City (they rode a little with Chris Nolte of Propel Bikes in Brooklyn, Chicago, Seattle, Los Angeles and everywhere in between. They recorded their trip on Strava (see the map), and the only time they didn't ride was from Penn State to Pittsburgh, where they rented a U-Haul for safety because Hurricane Ida was approaching.

They plodded on despite times of high heat and humidity, rain, wind, snow and crossing the Continental Divide twice during their odyssey. If they weren't riding next to each other, they communicated by phone.

## WHAT ABOUT REPAIRS?

The duo had their share of flats; Luis counted 7 and Sushil 10. They eventually added in tube liners and slime to help ameliorate the problem, especially with thorns on the side of the roads in the Southwest. Sushil broke his rear derailleur and the rain damaged his pedal-assist sensor, so he had to have replaced in Eugene, Oregon.

The two didn't pack many tools, just a multi-tool, a couple of Allen wrenches and an adjustable wrench. Luis found a wrench on the road and kept it. That was a lucky thing, as Sushil's back wheel was starting to wobble, and that wrench was what they used to tighten the axle bolts. Somebody was looking out for them!

The worse mishap was when one of Sushil's pedals fell off when he got to California. Turns out one of the shops had installed the crankarms on the opposite sides, so the pedals were unthreading as he rode, ultimately damaging the threads. He had to pedal 100 miles to the next shop. They tried gluing the pedal in, and that worked for a while. The fortunate thing was that that leg was mostly downhill.



*A photo-op moment in Washington DC in front of the White House with the solar powered e-bike.*



After five full months of travel, the pair finally made it to Houston in January this year. In their time on the road they had many adventures and met many people to spread the word about e-bikes and sustainability.

As Sushil recounted, "I had always thought that taking the journey will be the most difficult task in this entire scenario, but I feel penning my final thoughts on the entire journey is! Fortunately for both Luis and me, people from all walks of life were very kind to us. Luis and I had all

the help and support available to us whenever we needed it the most. From random people ready to help us whenever we had flat tires on the road to the anonymous food donations in restaurants, I was literally moved by the kindness and generosity of people during the entire journey.

"To be honest, I had not expected so much generosity from people around us. It was the motivational honking by the passersby on the interstates and the good wishes of people that kept both of us going on the saddle every day for the

span of five-plus months.

"Most of the people, with whom we had interacted with, were appreciative and supportive of e-bikes and solar power, as they recognized both as an increasingly sensible solution of sustainable mobility and clean energy. This instilled a sense of confidence and consciousness in people about the technology, even though it's been around for decades. We were happy to have a conversation through this journey with as many people as possible and, hopefully, this journey inspires people to



shift towards a more sustainable lifestyle choice. Personally, I was happy to see the younger generation curious, aware and willing to make that shift.

"As for cross-country cycling across the United States of America, it is definitely doable! I initially had this perception that the country is a car-dominated one, and therefore cycling would be a challenge. What surprised me was the good cycling infrastructure we found throughout. What was even more supportive of our journey was the best routes, trails, hosts and campgrounds by active organizations like Adventure Cycling Association, Warmshowers.org and Rails-to-Trails Conservancy. One underrated application throughout our journey was the Google Maps bike route, which was our guide for the most accurate bike paths for navigation. However, it's always a good idea to talk to the locals who have a better sense of the latest road routes, traffic conditions and any ongoing construction work.

**“Obviously, Luis’ bike had more native range than Sushil’s at 1000Wh versus 600Wh, but on sunny days, Sushil got a 30-percent boost in his range, thanks to the solar panels.”**

"With a smart battery and charge management, longer distances can be covered on an e-bike with minimal physical effort. The 100-watt solar panels gave an average 30 percent of the energy to charge the e-bike batteries on the go, which reduced the wall charging time of the battery considerably. E-bike touring can, thus, open avenues for cycling for a lot of people, and with solar power, one can go off-grid partially or fully.

"This journey turned out to be stress testing for the components. We both are impressed with the performance of the e-bikes in all weather and road conditions under extreme endurance, which proves the worthiness of the e-bike technology. From our journey experiences, we have realized that the demand for e-bikes in the country has increased tremendously in the last couple of years and is expected to grow exponentially."

You can see their journey on their website at [www.thesunpedalride.com](http://www.thesunpedalride.com) and their full recount of the ride at <https://medium.com/@sushilr25/the-sunpedal-ride-usa-cross-country-edition-fa1beb5a29a7>. Sushil's Instagram is <https://www.instagram.com/sushilr25/> and Luis' is <https://www.instagram.com/luisfour/>.

The Palouse-to-Cascades trail in Washington was one of the most scenic trails that we have been on. Surrounded by nature, cut off from any vehicular movement and amazing scenery all around for 150-odd miles.







This was the first day of our journey starting from the Sol Mobil workshop in Winston Salem, North Carolina, and we posed with Ryan Gillespie, who runs the shop.

A 15-mile stretch called the Box Canyon Road on the way to Chiricahua Summit in California near the Joshua Tree National Park. This was one of the most beautiful stretches to ride on.



Thanks to Jim Simon, the Sustainability Director of Gonzaga University in Spokane, Luis and Sushil were hosted on the university's campus and got an opportunity to meet some students and the sustainability team to share our journey experiences and show off the e-bikes.

On the Arizona-New Mexico border as we were riding on Interstate 10 going east. ■



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