

Tesla founder energized about firm's future



J.B. Straubel talks about Tesla's plans in Northern Nevada and beyond. Photo/Mike Wolterbeek/UNR

By Linda Fine Conaboy

RENO – Although it's nice to be able to drive 250 without an electronic fill-up, all good things come to an end, as do all electric charges. The question of where to get a charge has been nimbly addressed by Tesla with the invention of their supercharger units with a DC connection allowing for a quick charge (30 minutes) at a series of superchargers strategically located coast-to-coast.

There's one in Truckee, and the company is adding charging stations daily to accommodate not only Teslas, but all

electric vehicles.

J.B. Straubel, Tesla's co-founder and chief technical officer, gave a talk Oct. 11 at UNR titled Building a Clean Energy Future: Tesla and Nevada.

He spoke about his passion for electric vehicles, an interest he developed when he rebuilt a discarded electric golf cart at age 14. He also spoke about his electric Porsche 944 that had a world electric vehicle racing record. His interest in electronics led him to Stanford University where he earned a bachelor's degree in energy systems engineering and a master's in energy engineering. He teaches an energy storage integration class at his alma mater.

As co-founder of Tesla, Straubel has overseen the technical and engineering design of the company's vehicles, including the Tesla Roadster, the Model S series and just-launched Model X. He said plans are in the works for another car, this one to be more affordable than other Teslas, with a price at about \$35,000.

"We were not founded to build expensive cars," Straubel said. "Our mission is to build affordable cars." The company is working on what he called a first generation roadster, the Model lll, which will have a 200-mile range.

Still in his 30s, the dapper entrepreneur chronicled Tesla's meteoric rise from 2003 and a mere 15 employees to its current complement of 13,000.

"We had a new idea in 2004—performance electric cars. It took a lot of effort to change people's perceptions," he said. That new idea led to the Tesla Roadster, powered by what was becoming a new era in automobiles—the lithium-ion battery.



Tesla began production of the Model S in 2012.
Photo/Linda Fine Conaboy

What the company needed next, he said, was a car that could compete with gasoline powered vehicles; thus the Model S series was born in 2012, built around a battery pack that literally rides on the floorboard of the car permitting a huge increase in cargo capacity and offering added safety because there's no motor in the front. In fact, the Model S carries the highest safety rating in the United States, Straubel said, receiving Motor Trend's car of the year award in 2013.

The new Model X rides on the same platform as the Model S, but it is an SUV with a range of 250 miles on a single charge, falcon-wing doors and a 5,000-pound towing capacity. While there was a display of cars in front of UNR's Crowley Student Union building where Straubel spoke, the Model X was unavailable for viewing.

He explained that in order to fulfill company ambitions and its enormous appetite for batteries –they consume 10 percent of all batteries produced – Tesla needed a more ready source as well as a supply line closer to home. Most batteries now come from Asia. By 2020, that battery appetite is expected to grow as Tesla expects to sell 500,000 cars within the next five-year period as well as battery packs for home and commercial use.

“We thought there must be a better way to build batteries, so

the gigafactory came into being,” Straubel said in reference to the huge production facility being constructed in Storey County in the Tahoe Reno Industrial Center east of Reno and Sparks. “We’re making a \$4.5 billion investment and will eventually employ 6,500 people full time, building batteries that are self-contained from an emissions point of view.”

Straubel said the plant would be powered by renewable energy sources. “It’s a net-zero energy factory.”

The main mission of the factory is to drive down costs of storage, Straubel said.

“The energy source must be sustainable to power an energy-sustainable car. The missing links are renewable and sustainable [energy]. The goal is to eliminate 100 percent of fossil fuel energy usage. Many say eliminating fossil fuels is an impossible goal. They said that about the Model S too,” Straubel said.

“Sustainable energy is this generation’s moon shot challenge,” he said, referencing the moon landing in 1969. “The sustainable energy race is a race against ourselves. We see the movement to sustainable energy as our biggest goal.”

The Northern Nevada facility is being built in phases as needed. He expects to see the first wave of employees move in in a few weeks.

In 2015, there were more than 600 internships at Tesla and about one-third of them were converted to full-time employees. They’re launching a new internship especially for the gigafactory.

“We’re here to stay, we don’t want a workforce that’s imported from somewhere else,” he said. “And as many people as we can bring on board and recruit from the local community, it makes that tie even stronger.”