

# O2 Energies sheds light, star power on solar energy

CORNELIUS – We're going to discuss solar photovoltaic energy generation! Aren't you excited? C'mon, I put an exclamation point at the end of the sentence. Didn't it work?

STAFF WRITER



CHRISTINA RITCHIE ROGERS

On Aug. 20, Joel Olsen, managing director of O2 Energies, put quite the exclamation point at the end of his sentence: a Tesla Roadster.

We're going to discuss solar photovoltaic energy generation AND you get to drive a sexy sports car!

That's more like it.

O2 Energies, a company focused on developing large scale ground-mounted solar power plants, hosted the Friday morning event at its office in the Aquesta Bank building in Cornelius to discuss solar energy and electric vehicles. Following a presentation on solar energy, Tesla sales rep Shaun Phillips demonstrated electric power in a sleek, metallic gray, 100 percent-electric sports car – with the top down, of course.

"Energy doesn't tend to be so exciting," Tesla Sales and Marketing Director Craig Davis said. "For the first time ever, there's a package that emotionalizes energy."

Solar energy is the most abundant en-



See more photos of the Tesla Roadster on the Herald Weekly's Facebook page.

ergy resource in North Carolina, and generating new solar energy is cheaper and cleaner than generating new nuclear energy, Olson said. We currently only draw about .1 percent of our energy from renewable resources like solar energy. We get about 60 percent of our energy from coal plants, 30 percent from nuclear plants and the rest from other sources like natural gas, he said.

Residents of the greater-Charlotte area see a lot of "orange" air quality days and could benefit from exploring cleaner energy generation and no-emissions vehicles. The annual environmental benefits of using solar energy are significant, with the reduction of byproducts of carbon dioxide and nitrogen dioxide – two of the major factors contributing to smog – as well as sulfur dioxide and mercury. A solar-power plant also does not require water for cooling like nuclear plants.

The cost comparison between generating new solar versus new coal or new nuclear energy is important to consider because the average coal-fired power plant is 45 years old and our nuclear plants are, on average, more than 30 years old. In other words, Olsen said, they will need to be rebuilt or replaced.

O2 Energies is exploring creative ways



Christina Ritchie Rogers/Herald photo

The 2010 Tesla Roadster.

to install solar panels, such as creating solar panel structures over parking lots, creating more shaded parking spots and generating a lot of energy. Olson gave this example: Converting 416 parking spots to shaded parking spots with solar panels would generate enough energy to meet the annual electricity consumption of 200 homes. Charlotte-Douglas Airport, for example, has more around 20,000 parking spots.

The only relationship between solar power and electric cars is that the former can be used to charge the latter, but the use of both offers a significant benefit to the environment, Olson said.

When the Herald-Weekly learned a Tesla test-drive was on the table Friday, we knew our graphics guru and resident car enthusiast Steve Pigg was the man for the job. Or, the kid for the candy shop, depending on how you look at it.

"All I can say is wow," Pigg said, following his ride. He summed it up as well as anybody given the chance to drive a car that accelerates from 0 to 60 mph in 3.9 seconds.

Aside from the great handling and "high peak-torque," Pigg also embraces a car with no harmful emissions. A busy father of two, he doesn't think he'd have a problem charging his car.

"I would love to own an electric car,"

he said, and calculated he could drive to and from work for a week on one battery charge.


The Tesla Roadster charges overnight with a standard voltage hook-up, such as a washer/dryer outlet, and the average cost to fully charge the battery is about one-fifth the cost to fill the gas tank of an equivalent sports car, Davis said.

But the current model may be cost-prohibitive for some – the 2010 Roadster model's base price in the U.S. is \$101,500 after a federal tax credit. Tesla plans production of a more affordable model for 2012. That model, which will seat up to five people, will go 0 to 60 in fewer than 6 seconds and will cost \$49,900 after the tax credit, Davis said. In case you're interested, the closest Tesla dealership is in Washington, D.C.


And since the cars can plug in almost anywhere, charging them is no more inconvenient than driving around looking for gas stations, he explained. Allowing for charge time takes only a slight adjustment in thinking and planning, he said. Davis is encouraged that 2,300 of the 2012 Teslas are already reserved, and Tesla has sold 1,300 of the roadsters to people in 28 countries.

"It's just a question of adjusting our perception of the world around us," he said. □

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