

# Electrifying efficiency

Employee Involvement team's solution 'drives' usability, economy and environmental performance

By Eric Fetters-Walp

Photos by Gail Hanusa/Boeing

**N**ew electric crew vehicles at the Everett, Wash., Delivery Center are rugged-looking, carry up to four people and run with no exhaust and just a slight noise.

They also are cheaper to operate than the center's older vehicles, have a much smaller carbon footprint and, perhaps most important, they're exactly what the center's crew members needed for doing their jobs.

Deciding what vehicle was best for the Delivery Center's crews involved plenty of employee involvement, collaboration and consideration of both the environment and budget limitations.

Previously, the vehicle crew members used most around the Everett Delivery Center's airplane parking stalls was the 12-passenger van. When the local Employee Involvement team first looked into choosing new vehicles, the idea was simply to get new vans to replace some of the old ones, said Blaine Eveland, 777 Preflight and Delivery manager. But since those vehicles are relatively expensive, the Delivery Center team was set to order just one new van.

On the day the order for that vehicle was to be signed, however, something else happened: The Employee Involvement team learned about Boeing's conservation initiative, which changed the team's thinking, according to Michael Force, airplane maintenance technician at the Everett Delivery Center and team member.

"We started looking at different electric vehicles on the market, and we put together a plan that called for



four-person electric carts and centrally pooling the 12-person vans," Force said.

It made sense to look at an alternative to the gas-guzzling vans, Force said. While useful when needed to transport an entire crew of a dozen people at once, the vans were too often underutilized. "We were seeing these 12-passenger vans running all around with just two people in them," he said. "Ninety percent of the time, I'd say, they were running with less than four people inside."

Chris Bentley, a capital assets budget focal for the Everett Delivery Center, said the Employee Involvement team made a solid business case: The electric vehicles

**PHOTO: (ABOVE)** Tim Vertin, airplane maintenance technician, unplugs a new electric vehicle at the Everett, Wash., Delivery Center. The vehicles are kept plugged into electric outlets when not in use. When fully charged, the vehicles usually can go for 50 miles (80 kilometers).

**(RIGHT)** Airplane maintenance technician Tim Vertin drives an electric vehicle at the Everett, Wash., Delivery Center.

cost about one-third less than the large vans, and maintenance and fuel costs for each electric vehicle are estimated to cost nearly \$4,000 less annually.

“I was impressed that they were concerned with saving the company money and reducing environmental impact, in addition to requesting vehicles they liked,” Bentley said.

Over the next year, the Employee Involvement team evaluated or tested 20 different electric vehicles and consulted with Shared Services Group’s Fleet Support. The vehicle that best fit the Everett flight-line requirements was watertight, with enclosed interiors, and outfitted with a heater and a fan, making it ideal for the

rainy, cold and windy conditions employees there often face.

“It came down to us choosing the right vehicle for us,” Eveland said.

As of July, the Everett Delivery Center had four of the vehicles, with more scheduled to be added in the coming years.

Raising the hood on one of the new vehicles to show its simplicity without a combustion engine, Force said he’s been happy with the performance so far. They are kept plugged into electric outlets whenever not in use to keep them ready for any task. When fully charged, the vehicles usually can go for 50 miles (80 kilometers), he said.

Then there are the environmental

advantages. On an annual basis, each electric vehicle saves more than 10,000 pounds (4,536 kilograms) of carbon dioxide emissions from entering the atmosphere, when compared with the large van, according to the Everett Delivery Center’s estimates. The electric vehicles also don’t use oil, antifreeze and other potentially hazardous fluids needed by gasoline engines. Bringing Boeing closer to its environmental stewardship goals also feels good, Eveland said. “We want to be on the forefront of that,” he added.

Electric vehicles aren’t new to Boeing, of course. But as environmental awareness has increased, electric and alternative-powered vehicles have gained favor for their reduced carbon footprints. Last year alone, Boeing purchased more than 100 electric vehicles just for its Puget Sound facilities, according to Supplier Management and Procurement.

Additionally, Boeing sites around the globe are adding lower-emissions vehicles to their fleets, including cars powered by compressed natural gas in Southern California and a solar-powered scooter being tested under the desert sun of Mesa, Ariz. All of those vehicles are helping Boeing’s Fleet Support organization meet its goals of reducing emissions, fuel use and overall vehicle operation costs, said Larry Cameron, a Fleet Support fleet manager.

Christer Hellstrand, Boeing Environment, Health and Safety’s capabilities and processes director, added that the Everett Delivery Center’s decision to use alternative-power vehicles is a good example of how Boeing employees can help improve the company’s environmental performance.

“The Everett Delivery Center team’s work is an outstanding example of embedding environmental considerations into our daily operations—with dual benefit to the environment and the bottom line,” Hellstrand said.

According to Eveland and Bentley, the vehicles have proved themselves at the Delivery Center. They said other groups, including the Customer Delivery Center at Seattle’s Boeing Field, have been in contact to investigate whether more electric vehicles would work at their sites as well. ■

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