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Cutline for Photo courtesy the High Plains Technology Center

Safety Instructor James Tew rigs emergency evacuation descent systems used during wind turbine emergency evacuation training conducted as part of a comprehensive wind energy training program offered at the High Plains Technology Center in Woodward.

When the wind comes sweeping down the plains these days, it brings great opportunities for people like John Munoz and Jerry Dominguez, students ready to graduate from a wind energy training program at the High Plains Technology Center in Woodward.

It might be said that the future of wind as an energy source – or at least its future in Oklahoma and in a broader region including Texas, Colorado, New Mexico and Kansas – arrives first in Woodward. That's where Munoz, Dominguez and others in the unique program get prepared for careers maintaining mammoth wind turbines that have multiplied not just across the plains but across the globe in recent years.

Neither the jobs – nor the training – are ideal for everyone. Taylor Burnett, the assistant superintendent at High Plains, said candidates for the program must be both mentally and physically prepared.

"On the job, your office is 300 feet in the air and electrified," he said.

Not surprisingly, first classes in the 20-week program are intensely focused on safety. Students learn how to best manage working at heights that might be easily dizzying to some and in spaces confined tightly enough to induce claustrophobia in others. They learn about fire awareness, confined space awareness and rescue, first aid and also how to safely operate industrial fork lifts, light cranes and other equipment like hydraulic torque wrenches that they'll use on the job. They learn about electronics and electricity involved in wind power. They take laser alignment training, study schematics and learn about the motor mechanics of wind turbines.

Eventually, work in the classroom gives way to work under Woodward's wide open sky. There's a 35-foot tower at the tech center used to get students prepared for climbing and rappelling. But, there's a 125-foot working direct drive turbine with a 2.3 megawatt nacelle as well, and that's where students can really get a feel for what work will be like in the real world.

"We try to make it as real world as possible," Burnett said. "They'd better be prepared to get dirty."

Wind technicians also can easily put in more than 40 hours in a week.

But that's OK with Munoz. He had an oilfield job before and is used to working hard. He said he gave thought to taking the training at High Plains awhile back, but after getting laid off from the oil patch was convinced to seek out a career extracting energy not from earth and rock but from the wind and sky.

"It was kind of like a perfect storm," he said. "Everything just kind of lined up for me to take a step in this different direction."

Dominguez, too, is perfectly fine with the idea of working hard either on the ground or 300 feet above it.

"The most challenging (part of the program) I'd have to say so far has been the climbing part," he said. "You can't really train for it, but it's a really fun thing to do."

Dominguez arrived in the program straight out of Woodward High School.

"I just wanted to learn a career, and they were accepting," he said. "Being a young guy I'll probably take whatever comes my way (as far as a job offer), but I would like to explore places."

Burnett said the program has had about a 96% success rate in placing about 125 program graduates so far. Most have remained in Oklahoma or at least in the region, which ranks among the most productive in the nation for installed wind turbines. There are 11 wind farms within a "stone's throw" of Woodward, he said, and many more in the region that harvest power from thousands of turbines. In fact, according to the American Wind Energy Association, Oklahoma ranked third in the nation in 2019 for installed turbines, representing more than $15 billion in capital investment and

supporting more than 6,000 jobs. Even more impressive, according to the Global Wind Energy Council, in 2016 there were 341,320 turbines producing power in all corners of the world, including many offshore. In that year it was predicted that 520,000 people would be employed by the wind power industry worldwide by 2020.

The training program at High Plains is recognized by the Global Wind Organization, a non-profit inclusive of wind turbine manufacturers and owners committed to standardized training for wind workers. So, if graduates aspire to work in Europe, Asia or somewhere else, there are many opportunities.

It's not unusual for students at the Woodward center to be offered jobs even before they graduate. It's even happened in the past that wind farm executives doing the hiring have been former High Plains students themselves.

"That's what we love more than anything," Burnett said. "We have former students who are now running wind sites and making hiring decisions, and the first place they're stopping by is our class, because they know the quality of the people we're putting out here."