

WIND FARM CAREERS LOOKING UP

Green energy
sector churns
out jobs, power

DAN HEALING
CALGARY HERALD

There's nowhere to go but up for the athletic young men and women who keep the 40-metre blades churning on Alberta's fastest growing energy sector: the wind farm.

"The view from the office is terrific," says wind technician Damon Sieben, 32, who tends a fast-growing crop of wind turbines for Danish manufacturer Vestas's southern Alberta base in Pincher Creek.

"It's amazing, really. You get a great view that you'd never see if you were stuck on the ground," agrees co-worker

Landon Williams, 28, who admitted sometimes it's hard to ignore the spectacular scenery and get back to the job at hand.

The list of wind turbines in Alberta keeps getting longer. And the turbines are getting taller.

There are more than 500 giant wind turbines turning in southern Alberta and about 300 of them are covered by service contracts from Vestas.

Typical turbines have evolved from 60 to 80 to 100 metres tall.

According to the Canadian Wind Power Association, average output in Canada has jumped from 600 kilowatts per wind turbine unit five years ago to 1.5 megawatts. Three-megawatt turbines are being added and Europe is installing five-megawatt units. Meanwhile, the cost of pro-

ducing power has fallen more than 80 per cent.

That means plenty of work for technicians such as Sieben and Williams, who spend their days climbing inside the tower shaft and walking on the platform on top to perform routine maintenance and repairs.

Technology is changing almost daily, but the two workers have no trouble identifying their favourite recent improvement — last summer, Vestas installed its first Alberta turbines with two-man powered lifts inside the tower, a welcome change from the arm-numbing ladders of early technology.

Another innovation that may be installed on older turbines is a lift-assist cable system to help workers make their long ascents.

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Photos, Lorraine Hjalte, Calgary Herald
Above and below: Technician Landon Williams' work takes him to great heights inside Alberta's expanding fleet of wind turbines.



FROM E1

WIND: 'A respect for heights'

Both wind workers graduated from the five-year-old electrician-wind turbine technician program at Lethbridge College.

The school recently erected a 23-metre-tall tower for training purposes, and Greg Peterson, industrial program designer for the college, said the capacity will go to 32 students from 16 this fall. A new 22-week course starts each September and January.

He said young males are the main demographic attracted to the program, but there have been four women who have graduated and gone to work. The jobs are provided by the wind farm owners, equipment manufacturers or third-party contractors.

"It is very, very demanding work," said Peterson. "The requirements going into it are you have to be physically fit, not afraid to work at heights or in confined spaces, and be mechanically inclined."

A typical wind turbine service call involves climbing up through the shaft of the tower to the top of the structure. The technician greases moving parts, tightens bolts, examines the generator and gearbox and, if needed, descends on ropes or rides in a crane lift to fix flaws out on the fibreglass blades.

How do the blades get damaged?

"Well, there are lightning strikes," said Peterson. "You could have a wind storm or a sand storm that could do something. There's also been, unfortunately, some people take shots at them with guns. Those all have to be repaired."

The program loses a few

students who take jobs before they graduate, he said.

And some students can't handle the realities of the job.

"Some, they think they can overcome their fear of heights. Then they find out, 'You know what, I really can't handle this,'" he said.

Guy McKenzie-Smith, co-owner of wind farm installation and maintenance contractor **Windcon Energy Services**, said it takes guts to go outside at such heights.

"I think one has to have a respect for heights," he said. "Especially in Alberta, with the snow and winter conditions. With a chinook you can have ice on the top of a turbine and you often have to get out at 300 feet (91 metres) in the air to service some blades or look at the measuring devices and instruments."

"The fellows who are doing it; they are the parachute person, they are the bungee jumpers, they're the rock climbers, the people that that type of skill set would be interesting for them."

Windcon is headquartered in Ireland, but has operations in Lethbridge, Vancouver and Ontario, plus the United States and the United Kingdom.

McKenzie-Smith, a Canadian, said the company has hired more than 20 Lethbridge College grads

at starting wages of between \$23 and \$26 per hour, usually with a living allowance thrown in.

Safety is a key concern and every turbine must be shut down and locked down before being climbed. No employee is allowed to enter a turbine without backup, he said.

Safety comes first for Williams and Sieben, both married and with young children, who got into the

business to provide for family, not for the thrills.

"My wife is quite happy that I've found something I enjoy," said Williams, who was a school maintenance worker before a family friend recommended the program.

Before rappelling off the Lethbridge water tower as part of his college course, he said he hadn't done anything at such heights.

Caution is his byword.

"If it's icy or there's snow, anything that can fall on you, if the visibility isn't there, you don't go up."

Sieben was an auto mechanic in Dawson Creek, B.C. — and a sometimes recreational parachutist — before enrolling in the program so he could move his family closer to his wife's family in Lethbridge.

"I don't mind heights at all, although I wouldn't say I'm an adrenalin junkie," he said.

Both said they intend to make wind turbine maintenance their lives' work, with Sieben adding he'd like to get a closer look at the wind turbines offshore, out of the view of neighbours who often don't appreciate them.

"I would like to take a year and work on an off-shore wind farm," he said. "That's where the future is."

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