

## Best Practices in Small Wind: Tower Climbing Safety

By MICK SAGRILLO

A former small wind installer, Mick Sagrillo consults and trains the next generations of small wind installers and site assessors.

Late last year, a technical college instructor in Indiana, working with students on a wind-training tower, fell 65 feet to his death. The 36-year-old instructor was wearing a full-body Occupational Safety and Health Administration (OSHA)-approved safety harness. It's not yet clear what went wrong.

He was not the first small wind worker to fall to his death. Two people died in separate incidents in the early 1980s, both due to risks that should not have been taken.

In addition, one professional was crippled in the early 1990s in a fall while installing a tower.

Several years ago, the American Wind Energy Association (AWEA) convened a working group with OSHA and the utility-scale wind industry to write a best practices document for that segment of the industry. The issues associated with working on large wind turbines are vastly different from those of concern with small wind turbines. However, the industries share several missions and tasks, including working at height, with electricity and with mechanically moving equipment. Regardless, most safety practices developed for the utility wind industry would have little application to small wind.

And so, two years ago, a committee of installers and instructors organized to create a best practices document on tower climbing safety for small wind systems. The resulting "Best Practices in Small Wind: Tower Climbing Safety" (BPSW-TCS) document can be found at [smallwindconference.com](http://smallwindconference.com), under the "Resources" tab. While still a work in process, the document is an excellent start to what is expected to represent the final word in working on small wind turbine towers.

BPSW-TCS begins by reviewing the environmental hazards that come with working on a small wind tower, from weather to insects (consider the consequences of

exposing a wasp nest in a non-functional wind turbine at 120 feet). It reviews job site issues, followed by personal protective and fall protection equipment. There are sections on emergency and rescue planning, and tower and foundation inspections. The document then covers working with a ground crew and cranes.

The format of BPSW-TCS follows other safety documents: Each hazard is explained, followed by best practices recommended for the given situation. These are based on well-proven practices from other industries with comparable safety issues, and on the wealth of experience from the installers and instructors who crafted the document.

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The Distributed Wind Energy Association (DWEA) has conducted several webinars to elicit input from a broader range of small wind installers. Comments and edits have been incorporated, and BPSW-TCS is now in its fourth version. The document will continue to evolve as new risks and solutions are identified. The current edition is an excellent resource for anyone working around or on towers. Read and digest it, then refer to it often as a refresher. If you own a small wind business employing a tower crew or teach workshops, make sure that everyone is familiar with its contents.

The three deaths and one critical injury over the 35-year history of the modern small wind industry could have, and should have, been prevented. While this can be viewed as an excellent accident record compared to nearly all other industries, even one accident is too many. All of us in the small wind industry need to work together to prevent future tragedies.

BPSW-TCS is a small wind industry document created by and for small wind professionals. We value and need industry input. If you have comments or edits to offer on BPSW-TCS, please contact lead author Jenny Heinzen (who is certified in tower climbing and rescue) at [jennyh@midwestrenew.org](mailto:jennyh@midwestrenew.org). 5T



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